

National Studies on Assessing the Economic Contribution of the Copyright-Based Industries



Creative Industries Series No.2



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The Economic Contribution of Copyright-Based Industries in the Philippines

Research Team
Emma C. Francisco
Loreli C. de Dios
Erniel B. Barrios
Albert P. Tijam, Jr.

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Executive Summary

The economic significance of copyright is generating interest as the role in national economic activity of non-material production factors, including the digital revolution, is gaining importance.

In the Philippines, the great potential of copyright in promoting the growth of Philippine industries must be realized, and the economic value for local development must be captured. To achieve this, it is essential to first ascertain the size and composition of the Copyright-Based Industries (CBI) in the country. Thus, the World Intellectual Property Organization (WIPO) with support from the Government of Japan has met the request of the Philippine Government to conduct this baseline study to provide benchmark information on the contribution of copyright industries to the national economy. This study specifically seeks to quantify the economic contribution of copyright and related rights industries to Gross Domestic Product (GDP), employment and trade; to examine and understand the role of copyright in selected copyright-based industries, and to propose policy and institutional interventions to encourage the growth and development of copyright-based industries in the country.

The study follows the WIPO Guide on Surveying the Economic Contribution of the CBI in identifying the relevant Philippine industries and estimating their value added share in GDP, employment and trade.

The main source of data analyzed in this study is from the National Statistics Office (NSO) which is mandated to undertake censuses and surveys of households and establishments. Value added and employment data are from the NSO's 2000 Census of Philippine Business and Industry (CPBI), with 1999 as the reference year, and covering large establishments (i.e., those employing 20 or more workers) only. Share in GDP is based on value added estimates in the CPBI.

According to the WIPO Guide, core copyright-based industries would not exist or would be significantly different without copyright, hence 100 percent of such industries' value added is considered as a copyright contribution to the national economy. To estimate the contribution of non-core copyright-based industries, copyright factors from the Singapore study have been adopted because Philippine-specific factors are not yet available.

Trade data in this study come from the Foreign Trade Statistics, an annual publication that provides import and export values of goods using the Philippine Standard Commodity Classification (PSCC), at the most disaggregated 7-digit level of classification. The share of copyright products in trade is calculated only in terms of physical goods and excludes royalties.

Based on the official statistics of the Philippine Government relating to large establishments, the total contribution of CBI to the GDP of the Philippines was estimated at 4.82 percent, of which 3.50 percent was by the core copyright-based industries, 0.96 percent by interdependent, 0.04 percent by partial, and 0.29 percent by non-dedicated support CBI. These CBI employ an estimated 317,000 workers which is approximately 11.1 percent of the total employed in large establishments, 8.81 percent of whom are in the core copyright-based industries, 1.4 percent in interdependent, 0.2 percent in partial, and 0.6 percent in the non-dedicated support industries. Taken together, copyright-based imports made up 9.18 percent of total Philippine imports in 1999, decreasing slightly to 7.67 percent in 2003. The level of exports also dropped from 18.18 percent in 1999 to 13.34 percent in 2003.

These results indicate the significant contribution of CBI to the economy of the Philippines, notably its potential for employment generation. For this reason, government intervention is highly recommended.

A policy to protect copyright and encourage creativity already exists. It is enshrined in the Philippine Constitution and in the principal law on the matter, the Intellectual Property Code of the Philippines (Republic Act 8293) which took effect on January 1, 1998. While additional legislative initiatives may help, they can take years to formulate and much longer for results to be achieved. On the other hand, steps can be taken immediately by government agencies to provide relevant information to help Philippine establishments.

The National Economic and Development Authority (NEDA), is primarily responsible for the formulation of continuing, coordinated and fully integrated social and economic policies, plans and programs. Its powers and functions are exercised by the NEDA Board. Chaired by the President of the Philippines with the Director General of NEDA as Vice-Chairman, the NEDA Board has as its members the Executive Secretary and Secretaries (heads) of the following departments: Finance, Trade and Industry, Agriculture, Environment and Natural Resources, Public Works and Highways, Budget and Management, Labor and Employment and Local Government. All of these departments are directly related to all the copyright-based industries covered by this study.

The National Statistical Coordination Board (NSCB) is chaired by the Director-General of NEDA. It is the main policy-making and coordinating body on statistical matters. Among its powers and functions, the NSCB is mandated to recommend executive and legislative measures to enhance the development and efficacy of the system; to allocate statistical responsibilities among government agencies by designating the statistics to be collected by them including their periodicity and content; to develop, prescribe and maintain an appropriate framework for improvement of statistical coordination and prescribe uniform standards and classification systems in government statistics. It may set up inter-agency committees to assist it in carrying out its activities.

The NSO is the major statistical agency responsible for providing general purpose statistics and undertaking censuses and surveys as may be designated by the NSCB.

Quality information must be systematically and regularly gathered and made available by NEDA and the NSCB through the NSO and other government agencies. The following recommendations can immediately be implemented:

- (1) Detailed data collection and classification must be undertaken to establish the size, composition, and changes in the copyright-based industries.
- (2) A direct question on the amount of copyright royalties and a separate tally of the results would also be useful. While the question is currently asked, the answers are subsumed under "Costs of non-industrial services carried out by others." The 2003 ASPBI now poses a specific, separate question on the costs of copyrights, franchises, etc., although the replies are not reported separately. However, a question on annual payments for the use of copyrights separate from other forms of intellectual property would be more useful. R&D expenditures would also be more relevant if the amount relating directly and only to current production was separated out.
- (3) The categories from the North American Industry Classification System (NAICS) must be taken into consideration by the technical working group under the NSCB to properly identify and classify digital products and services.
- (4) The Labor Force Survey must be utilized more effectively as it targets individuals rather than establishments as respondents. Since self-employed individuals produce copyright products and services, their number and contribution must be estimated.

- (5) With the release in 2007 of the International Standard Industrial Classification (ISIC) Revision 4 by the United Nations Statistics Division, and the fast-tracking of the ASEAN Standardization of the Classification System by the ASEAN Secretariat, the Philippine Statistical System must elevate the CBI to a higher-level classification to ensure proper collection of information on them and raise the awareness of their importance and economic contribution not only in the Philippines but in other countries as well.
- (6) The Securities and Exchange Commission must require corporations and partnerships to include information on payments made/received on account of royalties, including details of the name and location of the payee/payer and the amount in their annual financial statements. Industry associations or individuals should be encouraged to provide information when they register as businesses or professionals.
- (7) The NSCB must require the regular updating of CBI statistics identified here not only by the NSO but by other agencies such as the SEC, with the obligation to collate, organize and submit the data to the NSCB. To monitor enforcement and judicial actions effectively, data from enforcement agencies and courts, including historical information, must likewise be systematized.
- (8) The present report provides baseline information on the economic contribution of CBI in terms of value added, employment and foreign trade. NEDA must conduct further, regular studies on the CBI, in particular to establish copyright factors for the Philippines. Initially, the present survey could be repeated using the WIPO Guide or its updated version using new/older statistics for comparisons over time. Further studies should be built upon the WIPO Guide or its updated version to ensure comparability of data/results. At the same time additional parameters/measures could be incorporated to accommodate other information needed by policy-makers such as, for example, the social impact of CBI.
- (9) Again, it is necessary to underscore the need for a policy to provide funds or funding sources such as fees and charges for the specific purpose of carrying out the recommendations made here.
- (10) In order to monitor enforcement and judicial actions effectively, data from enforcement agencies and courts, including historical information, must be systematized.

In the short and medium term, programs for public awareness on copyright and its importance must be regularly undertaken. Private sector participation in the education of the public must be intensified. The program of integrating awareness of copyright at all levels of the educational system must be fully implemented.

In the medium and long term, laws and policies, including implementation of laws on copyright, must be periodically reviewed and upgraded taking into account the impact of CBI on the economy as shown by studies using government statistics, preferably including the informal sector.

Introduction

The economic significance of copyright is increasingly generating interest because of the growing importance in national economic activity of non-material production factors, including digital technology. Indeed, numerous country studies¹ have confirmed that copyright and related industries contribute significantly and increasingly to national comparative advantage and intellectual capital.

In the Philippines, this recognition appears in knowledge-based development strategies as well as in the establishment of policy and the organizational infrastructure for the enforcement of intellectual property rights. For instance, Republic Act 8047 or the Book Publishing Industry Development Act was passed in 1995, mandating the implementation of a National Book Policy and National Book Development Plan. A Book Publishing Development Month is celebrated, and the royalty tax on authors has been reduced from 20 percent to 10 percent. The Intellectual Property Code which was passed in 1997 took effect in 1998 and created the Intellectual Property Office. The WIPO Internet Treaties, Florence Agreement, Nairobi Protocol and other international commitments are complied with, while a Philippine reprographic rights organization and literacy coordinating council have been established. The National Statistics Office (NSO) is collecting statistics to document the importance of copyright-based industries by including questions on non-material inputs.

The great potential of copyright in promoting the growth of Philippine industries must be exploited, and the economic value for local development must be captured. For this to be achieved, it is essential to first ascertain the characteristics of copyright-based industries in the country. The World Intellectual Property Organization (WIPO) with support from the Government of Japan therefore met the request of the Philippines to conduct this study in order to provide benchmark information on the contribution of copyright products and services to the national economy.²

1.1. Objectives

The specific objectives of the study are: (1) to quantify the economic contribution of copyright and the related rights industries in the Philippines to Gross Domestic Product (GDP), employment, and trade, (2) to examine selected copyright-based industries to understand the role of copyright in each, and (3) to propose policy and institutional interventions to encourage the growth and development of copyright-based industries in the country.

The study focuses on GDP, employment, and trade as the main indicators of economic importance, inasmuch as growth and productivity are conventionally ascertained in these terms. Use of these indicators also enables comparisons with other industries and with other countries that will in turn help refine the methodology.

1.2. Methodology and Data Sources

The study follows the procedure in the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries (CBI) in (1) identifying the relevant Philippine industries and (2) estimating their value added share in GDP, employment, and trade.

¹ State University of Campinas and WIPO (2002), Turku School of Economics and Business Administration (2003), NUS Consulting (2004), Siwek (2004), Allen Consulting (2001), Wall Communications (2004), IIPA (2005).

² The research team engaged for this study was composed of Emma C. Francisco, Loreli C. de Dios, and Erniel B. Barrios. Albert Tijam provided research assistance. WIPO provided experts, namely, Dr. Dimiter Gantchev, Acting Director, Creative Industries Division, WIPO Switzerland, and Dr. Jeremy Thorpe, Director, The Allen Consultancy Group, Australia.

The WIPO Guide separates copyright-based industries into four groups:

Core copyright-based industries, defined as those that are wholly engaged in the creation, production and manufacture, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.

Interdependent copyright-based industries are industries that are engaged in the production, manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter.

Partial copyright-based industries are industries in which a portion of their activity is related to works and other protected subject matter and may involve creation, production and manufacture, performance, broadcast, communication and exhibition or distribution and sales.

Non-dedicated support industries are industries in which a portion of their activity is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries.

To identify copyright industries, the Guide uses the International Standard Industrial Classification (ISIC) system, which describes and classifies all possible types of industries in a country, assigning codes to each for easy reference. The ISIC was adopted by the Philippine Statistical System as the Philippine Standard Industrial Classification (PSIC) scheme (1994 version), the most disaggregated descriptions of which are at the 5-digit level. The definitions of some sectors were modified to suit the Philippine environment.

The main source of data used in this study is from the National Statistics Office (NSO), the government agency mandated to undertake censuses and surveys of households and establishments. Value added and employment data are from the 2000 Census of Philippine Business and Industry (CPBI), which took 1999 as the reference year, and the 2003 Annual Survey of Philippine Business and Industry (ASPBI).

The major PSIC divisions that pertain to copyright and related industries are:

- Manufacturing
- Wholesale and Retail Trade
- Transport, Storage, and Communications
- Real Estate, Renting and Business Activities
- Other Community, Social and Personal Service Activities

The PSICs in each copyright-based industry corresponding to that of the WIPO Guide listing are given in Section 4 for core, Section 5 for interdependent, Section 6 for partial, and Section 7 for non-dedicated support industries.

The census or survey takes the establishment, defined as formally registered organizations at the Securities and Exchange Commission (SEC), as the unit of measurement. A distinction is made between “large” establishments, which have on average 20 or more employees, and “small” establishments, which have on average fewer than 20 employees. Only data for large establishments were used in the study for the reasons given in Section 1.3.

Economic contribution or share in GDP is taken from the value added estimates in the CPBI and ASPBI. Value added is calculated by the NSO as the sum of total revenue and capital expenditures on own account and change in inventory, less total costs net of indirect taxes, interest expense, depreciation, and bad debts.

The copyright-based industries however differ in the extent to which their activities are related to protected matter. According to the WIPO Guide, core copyright-based industries would not exist or would be significantly different without copyright; hence 100 percent of such industries' value added is considered as a copyright contribution to the national economy. The other categories show lower percentages.

To estimate the contribution of non-core copyright-based industries, copyright factors estimated by Chow *et al* for Singapore using the WIPO Guide were adopted as follows.³

Box 1. Copyright factors

CATEGORY	COPYRIGHT FACTOR (%)
Interdependent Copyright Industries	
1. TVs, radios, VCRs, CD and DVD players, electronic gaming equipment	35
2. Computers and equipment	35
3. Musical instruments	20
4. Photographic and cinematographic instruments	30
5. Photocopiers	30
6. Blank recording material	25
7. Paper	25
Partial Copyright Industries	
1. Apparel, textiles and footwear	0.4
2. Jewelry, costume jewelry	8.3, 42
3. Other crafts	42
4. Furniture and fittings, furnishings	8.3, 1.7
5. Household goods, china and glass	0.6
6. Wall coverings and carpets	1.7
7. Toys and games	42
8. Architecture, engineering, and surveying	8.3
9. Interior design	8.3
Non-dedicated Support Industries	
1. General wholesale and retail	5.8
2. General transportation	5.8
3. Telephony and Internet	5.8

SOURCE: Chow Kit Boey, Leo Kah Mun, Lee Kee Beng, Ong Chin Huat, and Loy Wee Loon, Economic Contribution of Copyright-Based Industries in Singapore, prepared for IP Academy, October 2004.

Copyright factors are used to weight the portion of a specific industry that can be attributed to copyright or the level of dependence on copyright.

While country-specific factors are not yet available, the Singapore factors provide an initial common basis for comparison among member countries of the Association of Southeast Asian Nations (ASEAN), a possibility that was mentioned at the ASEAN Working Group on Intellectual Property Cooperation, which plans to conduct a survey using the WIPO Guide. Countries will eventually need to determine their respective copyright factors based on evidence from their own CBI experiences.

³The study team planned to estimate copyright factors for the Philippines by conducting a survey of associations of copyright-based industries. However an extremely poor response rate rendered this impossible.

The NSO also compiles administrative reports from various sources which include foreign and local trade statistics that are based on bills of lading from seaports and airports. Trade data comes from the Foreign Trade Statistics, an annual publication that provides import and export values of goods using the Philippine Standard Commodity Classification (PSCC) at the most disaggregated or 7-digit level of classification. The share of copyright products in trade is reckoned only in terms of physical goods and excludes royalties.

1.3. Estimation Considerations

The PSICs whose descriptions matched those in the WIPO Guide were selected, either at the 3- or 4-digit level. The copyright-based industry categories thus consist of a combination of 3- or 4-digit PSIC codes; hence the corresponding information was combined to obtain that category's total value added and employment figures.

Furthermore, only data for large establishments were considered in this study, since only such establishments yield the required information on value added and are usually prioritized in sampling for both censuses and surveys. However, they are usually sampled on the basis of 3-digit PSICs; hence disaggregated sub-section data is rarely available. In contrast, small firms are sampled on the basis of their 4-digit PSIC, but the sampling design only allows the generation of selected information for such firms, and this is insufficient for the computation of value added. Nevertheless, large establishments comprise the majority of all relevant main industry groupings in terms of compensation, and, only with the exception of trade and other services, in the numbers employed.

Box 2. Share of large establishments in employment and compensation by sector

SECTOR	Share of Large Establishments (%)	
	Employment	Compensation
Manufacturing	69.9	90.4
Wholesale and retail trade	24.2	53.4
Transport, storage and communication	78.0	92.2
Real estate, rental and business services	63.3	76.8
Other community, social, and personal services	28.0	62.4

SOURCE: 2000 CPBI.

Data at highly disaggregated levels such as the 4- or 5-digit PSIC would be ideal because specific activities that are copyright-based are clearly identified. In general however these are published only when there are at least three establishments sampled under that PSIC level.⁴ Data is thus mainly at the 3-digit PSIC level, and where 4-digit data were available, they came from the All Establishments table and did not include value added. Value added at the 3-digit PSIC of Large Establishments was therefore prorated on the basis of compensation shares of the applicable 4-digit PSICs in their 3-digit headings from the All Establishments table, except in the case of telecommunications, which used an estimate from an industry study. The following summarizes these shares:

⁴Due to budget constraints, the 2000 CPBI is a complete enumeration of large establishments only but does not identify their 5-digit PSIC. For small establishments, aggregation is not available at the 5-digit PSIC since there were very few establishments that could be used to reliably estimate output at this level.

Box 3. Basis for proration of value added

INDUSTRY and PSIC	PROXY VARIABLE	ESTIMATED SHARE
9220 News agency	Compensation share in 922 (motion picture, radio, TV, other entertainment) from All Establishments dataset	1.2%
9211 Motion picture and video production and distribution	Compensation share in 921 (motion picture, radio, TV, other entertainment) from All Establishments dataset	10.5%
9212 Motion picture projection	Compensation share in 921 (motion picture, radio, TV, other entertainment) from All Establishments dataset	10.7%
9213 Radio and television	Compensation share in 921 (motion picture, radio, TV, other entertainment) from All Establishments dataset	59%
9214 Dramatic arts, music, other arts	Compensation share in 921 (motion picture, radio, TV, other entertainment) from All Establishments dataset	3.5%
9219 Other entertainment activities, n.e.c.	Compensation share in 921 (motion picture, radio, TV, other entertainment) from All Establishments dataset	15.2%
9249 Other recreational activities	Compensation share in 924 (sporting and other recreational activities) from All Establishments dataset	80.6%
9232 Museums, preservation of historical sites and buildings	Compensation share in 923 (library and archives, museums and other cultural activities) from All Establishments dataset	27.2%
9234 Art galleries	Compensation share in 923 (library and archives, museums and other cultural activities) from All Establishments dataset	4.4%
642 Telecommunications	Employment share of radio/TV as a residual from the de Vera employment estimate in telephone services	9.8%
7494 Photographic activities	Compensation share in 749 (business activities, n.e.c.) from Large Establishments dataset	0.6%
7499 Other business activities n.e.c.	Compensation share in 749 (business activities, n.e.c.) from Large Establishments dataset	3.24%

SOURCE: Computed from 2000 CPBI and de Vera (2002).

Value added estimates from the 2003 ASPBI were tabulated as far as possible for purposes of comparison. However, only a few CBI could be directly compared owing to differences in sampling methodology and coverage between the CPBI and ASPBI. The CPBI sampled large establishments at the provincial level using 4-digit PSICs and sampled all establishments at the regional level using 3-digit PSICs, while the 2003 ASPBI sampled large establishments on the basis of their 3-digit PSICs; hence industry aggregations did not always correspond. In many cases, the latter reporting these 3-digit PSICs combined while insufficient data precluded proration of 3-digit PSICs into 4-digit level shares.

Estimates of copyright royalties would have been available but they are subsumed under Costs of Non-Industrial Services Done by Others in the 2000 CPBI. The 2003 ASPBI includes a specific, separate question on costs of intangible assets, which covers copyrights, patents, trademarks, franchises, goodwill, etc., as a whole. Aside from the lack of a breakdown, it is a stock or fixed asset and needs to be annualized. An attempt to obtain such average annual costs per industry was unsuccessful.

Both the CPBI and ASPBI also provide research and development cost figures, defined as amounts spent on any systematic and creative work undertaken to increase stock knowledge and the use of this knowledge to devise new applications. However, this does not indicate an industry's degree of dependence on copyright as publishing and motion picture production, which are obviously dependent on copyright, show very low R&D levels. Their impact on output is also cumulative and not confined to one year. Nevertheless these are reported on in Section 8.

For certain PSIC codes that appear under more than one category, only those in a category that had a higher copyright dependency were included. The latter was based on the Singapore estimates of copyright factors.

Finally, data was suppressed by the NSO when only 1 or 2 respondents were sampled. Hence some categories have been combined to comply with confidentiality commitments and stability of estimates.

1.4. Additional Data Sources

Other data sources were:

- (a) The publication Top 7000 Corporations which provides firm-specific information on gross revenue for the copyright-based industries classified at the 5-digit PSIC. Their information is obtained from the SEC, which requires firms to submit their annual financial reports. Since the top 7000 corporations would already comprise about 70 percent of all business enterprises, the listing is useful. The main problem is that many multi-activity firms were classified under the activity which brought in the most revenue but actual revenue from copyright-based activity is not known.
- (b) The gathering of industry studies or profiles in publishing and printing, movie production, radio and television broadcasting, and software development, which allow for the inclusion of a background description of industry players, products/services, and markets in this study.
- (c) In the course of this study, a survey of copyright-based firms was attempted through sixty-three industry associations. Without sanctions for non-compliance, however, only seven replied, out of which only three were engaged in copyright-related business. Moreover they did not provide detailed information.
- (d) The NSO also conducts Labor Force Surveys every quarter, providing statistics on individual employment according to occupational categories, and which could therefore be a rich source of data on individual producers of copyright products and services such as artists, writers, composers, performers, photographers, programmers, and the like. Unfortunately the raw data tabulations are only at the most aggregated level and cannot be used for the study.
- (e) To provide an idea of the demand for copyright products and services, data on consumption patterns from the Family Income and Expenditure Survey (FIES) is used. The FIES is a nationwide survey of

households conducted every three years, the most recent being 2003. The sample makes use of the master sample of households for the Philippines maintained by the NSO. The survey gathers data on levels of family consumption by expenditure, sources of family income in cash or in kind, housing characteristics, and other household information. The 2003 round contained a total sample of 42,094 households.

Ideally, input-output (IO) tables enable a fuller understanding of the demand patterns that include the intermediate demand of other firms. However the most recent IO table for the Philippines takes 1994 as the reference year, but this may no longer provide realistic demand patterns because of substantial changes in the structure of the Philippine economy. A new benchmark table is still being constructed by the National Statistical Coordination Board (NSCB).

2. Policy environment

2.1. Framework

The Constitution of the Philippines declares the protection of intellectual property rights to be a state policy.

The Philippines is also a signatory to treaties relating to the protection of copyright and related rights as follows:

- (a) The Berne Convention for the Protection of Literary and Artistic Works (since 1951, with respect to the administrative provisions and since 1997, with respect to the substantive provisions).
- (b) The Convention Establishing the World Intellectual Property Organization (since 1980).
- (c) The Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (since 1984).
- (d) The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (since 1995).
- (e,f) The Internet Treaties: The WIPO Copyright Treaty and The WIPO Performances and Phonograms Treaty (since 2002).

The Intellectual Property Code of the Philippines (Republic Act No. 8293, or the IP Code) echoes state policy: “The State recognizes that an effective intellectual and industrial property system is vital to the development of domestic and creative activity, facilitates transfer of technology, attracts foreign investments, and ensures market access for our products. It shall protect and secure the exclusive rights of scientists, inventors, artists and other gifted citizens to their intellectual property and creations, particularly when beneficial to the people, for such periods as provided in this Act. The use of intellectual property bears a social function. To this end, the State shall promote the diffusion of knowledge and information for the promotion of national development and progress and the common good. It is also the policy of the State to streamline administrative procedures of registering patents, trademarks and copyright, to liberalize the registration on the transfer of technology, and to enhance the enforcement of intellectual property rights in the Philippines.” (Section 2)

To implement this declared state policy, the IP Code created the Intellectual Property Office which is mandated to hear and arbitrate in contested proceedings affecting intellectual property rights. Thus, the Director General who heads the Intellectual Property Office exercises original jurisdiction to resolve disputes relating to the terms of a license involving the author’s right to public performance or other communication to the public of his/her work. Decisions of the Director General in such cases may be appealed to the Secretary of Trade and Industry. On the other hand, the Director of the Bureau of Legal Affairs of the Intellectual Property Office is vested with original jurisdiction in administrative complaints for violations of laws involving intellectual property rights where the total damages claimed are not less than P200,000 (two hundred thousand pesos) (approximately €3,400 or US\$4000) This mandate of the Bureau of Legal Affairs includes the power to grant provisional remedies in accordance with the Rules of Court, and to award damages, making it comparable with the jurisdiction of regular courts in civil cases for intellectual property rights violation. The decisions of the Director of Legal Affairs may be appealed to the Director General whose decisions, in turn, may be appealed to the Court of Appeals. From the Court of Appeals, a final appeal may be made to the Supreme Court of the Philippines whose decisions are final.

The Government has thus recognized the importance of intellectual property and deliberately made it a priority. More recently, in early 2006, the President in a policy statement reaffirmed that “protection of intellectual property rights is first and foremost in the interest of the Filipino people.”* In late 2006 she emphasized that “protecting and promoting intellectual property rights is a strategic and critical component

* Statement rendered at the Luncheon for the National Committee for IPR (NCIPR) and private sector partners on 20 February 2006 at the Presidential Palace.

to the country's socio-economic development and the Government's efforts to raise the level of competitiveness of Philippine businesses."

The IP Code provides copyright protection to original literary and artistic works from the moment of their creation. Certain derivative works are also protected by copyright. The provisions on copyright are summarized in Annex C with a brief history of Philippine copyright law. Unlike past laws which required examination of copyright applications and registration for copyright to attach and to entitle the author to recover damages in case of infringement, the IP Code requires their deposit only to complete the collection of the National Library and the library of the Supreme Court of the Philippines. Deposit with either office is sufficient.

2.2. Policy Implementation

Largely as a reaction to the United States Trade Representative's (USTR) Special 301 process which placed the Philippines on the Watch List, the President created an Inter-Agency Committee on Intellectual Property Rights under the Office of the President. Chaired by the Secretary of Trade and Industry, the Inter-Agency Committee comprised 11 members, two of which were private intellectual property organizations, acting mainly as a forum for exchange of views particularly with respect to issues raised by the USTR during the annual Special 301 review process although some intellectual property rights (IPR) awareness seminars were conducted, these were limited by budget constraints.

In 1999 and 2000, the Director General of the Intellectual Property Office having been appointed to chair the inter-agency committee, set the focus for the inter-agency committee on enforcement by creating and empowering the sub-committee on enforcement chaired by the National Bureau of Investigation.

For its part, the Intellectual Property Office took the lead in non-enforcement related activities like policy formulation through legislation (the Optical Media Act and other IP laws) and adhesion to treaties (the Internet treaties and other IP treaties); information dissemination through seminars, workshops, overseas training of government and private sector employees; reaching out to businessmen, students (annual essay writing contests for elementary, high school, and university levels and painting contests for high schools were held up to 2004) and members of the academic sphere; introduction of the teaching of intellectual property rights at all levels starting with the specialized scientific high schools under the supervision of the Department of Science and Technology and the Department of Education, projects to provide transparency in government such as the database of IP cases at the Intellectual Property Office; the Regional Trial Courts and the Department of Justice. Projects to strengthen IP enforcement include the Handbook on IPR Enforcement and the Handbook for the Bureau of Customs, establishment of IP units in the Bureau of Customs and the National Telecommunications Commission.

When the inter-agency committee was abolished by the President in 2002, the Intellectual Property Office convened an Intellectual Property Enforcement Action Panel made up of a broader base coming from the public sector (enforcement and other agencies) and the private sector (academia, the business community, IP organizations).

In 2005 the Government formulated a strategic action plan to strengthen the intellectual property regime in the country, continuing the implementation of the policy contained in the constitution, the laws and the international agreements to which the Philippines is a party. The plan included institutional linkages and inter-agency coordination; sustaining enforcement; improving prosecution and adjudication; enhancing awareness and public education; institutional strengthening and capacity building; enhancing the policy environment and broadening international cooperation, intensifying public information and education, enforcing copyright protection of printed materials and implementing strategies such as copyright licensing and establishment of collection societies.

3. Copyright-based industries

A summary of the estimates of industry size in terms of employment, productivity, and economic contribution of all copyright-based industries is tabulated as follows, together with those of the broad economic sectors of agriculture and mining, manufacturing, and services. As only large establishments are covered, the aggregates may be slightly underestimated but patterns are likely to characterize each sector in its entirety since they are dominated by large firms. All together, CBI employed about 317,000 workers or 11.1 percent of the total employed in large establishments, and contributed P144 billion or 4.82 percent to GDP. Their value added share in GDP was much lower than that of industry and services, but exceeded that of agriculture, although the latter's value added is significantly understated since it consists mostly of small establishments or informal unorganized entities. Productivity was also much lower than in industry and services and lower than the national average. Their value added made up 26.7 percent of services and 15.5 percent of that of the major PSIC Divisions (manufacturing, wholesale and retail trade, transport and communications, business services, and other community social and personal services) under which they are classified.

Core copyright-based establishments made up 15.8 percent of all large establishments, employed 251,000 or 8.8 percent of the total, and provided P105 billion or 3.54 percent of GDP. They made up more than three-fourths (79.4 percent) of CBI employment, and about three-fourths (73 percent) of CBI value added. This is likely to be related to their high average productivity, which exceeded that of services, and came close to the national average.

Table 1. Size and contribution of Philippine copyright-based industries

Sector and Industry	Number of Establishments		Employment		Value Added (P000)	VA as % of GDP	Value Added per Employee (P000)
	Number	% of Total	Number	% of Total			
PHILIPPINES (Large Establishments)	28245		2853889		1226892217	41.0	430
Agriculture and mining	1213	4.3	149228	5.2	19668706	0.7	132
Industry	8664	30.7	1289290	45.2	668837212	22.5	519
Services	18368	65.0	1415371	49.6	538386229	18.1	360
COPYRIGHT-BASED INDUSTRIES			316785	11.1	143537212	4.82	453
Core	4466	15.8	251469	8.81	105450912	3.54	419
Press and literature	3541	12.5	177376	6.22	63407733	2.13	330
Music, theater, opera	252	0.89	23099	0.81	11726015	0.39	508
Motion picture and video	60	0.21	3022	0.11	2233413	0.08	739
Radio and television	138	0.49	12777	0.45	13629900	0.46	1067
Photography	19	0.07	1002	0.04	122461	0.004	122
Software and databases	322	1.14	27607	0.97	11444727	0.38	416
Visual and graphic arts	3	0.01	85	0.003	3837	0.0001	45

Advertising	134	0.47	6502	0.23	2882825	0.10	443
Interdependent			41085	1.4	28429503	0.96	692
Partial			6266	0.2	1059551	0.036	169
Non-dedicated support			17965	0.6	8597246	0.29	479
Copyright-based industries VA share in services: 27.2%							
Copyright-based industries VA share in major PSIC divisions D,G,I,K,O (manufacturing, trade, transport storage communication, business services, other community social and personal services): 15.8%							
NOTE: Agriculture includes forestry and fishing; industry consists of manufacturing, electricity gas and water, and construction; services consists of wholesale and retail trade, hotels and restaurants, transport, storage, communication, financial intermediation, real estate renting and business, private education, health and social work, and other community social and personal services.							

SOURCE: Computed from 2000 CPBI.

Of the core industries, the press and literature sector was the most significant contributor to GDP, bringing in 2.13 percent. Productivity was highest however in radio and television, which together with music, theater and opera, and software and databases, supplied over 1 percent of GDP. The rest contributed much less than 1 percent each.

Interdependent CBI contributed 0.96 percent of GDP; partial CBI share was 0.04 percent, and non-dedicated support industries accounted for 0.29 percent.

Some country estimates of the copyright industries' contributions to their GDP and employment are tabulated below. The coverage of copyright industries, estimation methods, and reference years differ across countries, except for the USA, Canada, or Latvia and Singapore, which also used the WIPO Guide. Nevertheless, the figures suggest that the Philippines is within the range of estimates, especially in view of the fact that it covers large establishments only. According to an IIPA (2005) survey, CBI generally account for 3-6 percent of overall economies, with both developed and developing countries exhibiting similar trends. In terms of employment share, however, that of the Philippine CBI is substantially higher relative to the rest.⁵

⁵ Some experts suggest that developing countries' results may be overestimated, possibly because total GDP is underestimated to the extent that the informal or unorganized sector, which could comprise a significant proportion of less developed economies, is not accounted for. However in the Philippines, national income estimates theoretically also cover the informal economy, although not completely. For instance, the informal economy was estimated by E. de Guzman (2001) to comprise 43.4 percent of Gross National Product (GNP). In fact the value added approach does not include the informal sector because establishment-based statistics only cover formally-organized entities. Hence the real value added estimate for a particular copyright industry should also include its informal or unorganized content. This could also explain the strong positive correlation between value added contribution to GDP and *per capita* income and negative correlation with piracy rates, which was pointed out by J. Thorpe.



Table 2. Comparative contributions of copyright-based industries to GDP and employment, by country

Country (Year)	% Contribution to GDP	% Contribution to Employment
Philippines (1999)	3.54 (core; large only)	8.81 (core; large only)
Argentina (1993)	6.6 (all), 1.5 (core)	5.3 (all), 1.2 (core)
Australia (1999)	3.3 (all)	3.8 (all)
Brazil (1998)	6.7 (all), 4.59 (excl. telecom)	5.0 (all)
Canada (2002)	3.99 (core), 5.38 (all)	6.96 (all)
Chile (1997)	2.0 (all)	2.7 (all)
European Union (2000)	5.3 (all), 3.99 (core)	3.1 (all), 2.02 (core)
Hong Kong (2001)	3.8 (creative)	n.a.
Japan (1998)	2.3 (core)	n.a.
Latvia (2000)	3.9 (all), 2.9 (core)	4.4 (all), 3.7 (core)
New Zealand (2001)	3.1 (all)	3.6 (all)
Paraguay (1992)	1.0 (incomplete)	3.3 (incomplete)
Singapore (2001)	5.7 (all), 2.85 (core)	5.8 (all), 3.64 (core)
United States of America (2002)	6.0 (core)	4.0 (core)
Uruguay (1999)	6.5 (all), 3.3 (excl. telecom)	4.9 (all), 3.8 (excl. telecom)

Sources: Siwek (2004); Media Group of the Business Research and Development Center, Turku School of Economics and Business Administration (2003), IIPA (2005), Wall Communications (2004); Allen Consulting (2001); NUS Consulting (2004); State University of Campinas and WIPO (2002).

In Table 3 below, the total average productivity of all CBI was higher than the average for both the national and services sector.

Large core copyright-based industries employed 56 persons on average. Within the core, radio and television, music, theater and opera, and software and databases employed the highest number and had high value added per establishment, indicating that their operations depended mostly on human capital and were highly productive. On a per employee basis however, motion picture and video showed higher productivity than the latter two industries although average productivity in radio and television significantly exceeded all others.

Value added per worker was higher for interdependent and non-dedicated CBI relative to that of the core CBI or the national average, while for partial CBI, it was the reverse.

Table 3. Average size and productivity of Philippine copyright-based industries

Sector and Industry	Number of Establishments	Employment	Value Added (P000)	Employment per Establishment	Value Added per Establishment (P000)	Value Added per Employee (P000)
PHILIPPINES (Large Establishments)	28245	2853889	1226892217	101	43438	430
Agriculture and mining	1213	149228	19668706	123	16215	132
Industry	8664	1289290	668837212	149	77197	519
Services	18368	1415371	538386229	77	29311	380
COPYRIGHT BASED INDUSTRIES		316785	143537212			453
Core	4466	251469	105450912	56	23595	419
Press and literature	3541	177376	63407733	50	17905	330
Music, theater, opera	252	23099	11726015	92	46540	508
Motion picture and video	60	3022	2233413	50	37224	739
Radio and television	138	12777	13629900	93	98800	1067
Photography	19	1002	122461	53	6445	122
Software and databases	322	27607	11444727	86	35543	416
Visual and graphic arts	3	85	3837	28	1271	45
Advertising	134	6502	2882825	49	21514	443
Interdependent		41085	28429503			692
Partial		6266	1059551			169
Non-dedicated support		17965	8597246			479
NOTE: Value added and employment of interdependent, partial and non-dedicated support industries are at factored levels.						

SOURCE: Computed from 2000 CPBI.

4. Core copyright-based industries

4.1. Coverage

Core copyright-based industries are industries that are wholly engaged in the creation, production and manufacture, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.

The core copyright-based industries consist of:

- Press and literature
- Music, theatrical productions, opera
- Motion picture and video
- Radio and television
- Photography
- Software and databases
- Visual and graphic arts
- Advertising services
- Copyright collecting societies

The PSICs corresponding to those in the WIPO Guide for each core copyright-based industry are listed in the boxes below. It is noted that (a) distribution industries are included in the core, (b) several 3- or 4-digit PSICs are simultaneously classified under several copyright-based industries, and (c) some 3-digit PSICs are highly aggregated. A few industries are described in some detail in Section 9, i.e., press and literature, motion picture and video, radio and television, software and databases and advertising services based on available literature.

Box 4. Press and literature

Economic Activity	ISIC Rev 3.1	PSIC and Description
Authors, writers, translators	9214 7499	9214 Dramatic arts, music, and other arts activities 7499 Other business activities, n.e.c.
Newspapers	2212	2212 Publishing of newspapers, journals and periodicals 2230 Publishing and printing activities
News and feature agencies etc.	9220	9220 News agency activities
Magazines/periodicals	2212	2212 Publishing of newspapers, journals and periodicals 2230 Publishing and printing activities
Book publishing	2211	2211 Publishing of books, brochures, and other publications 2230 Publishing and printing activities

Cards, maps, directories and other published material	2219	2219 Other publishing
Pre-press printing and post-press of books, magazines, newspapers, advertising material	2221 2222	2221 Printing 2222 Service activities related to printing
Wholesale and retail of press and literature	5139 5239	51386 Wholesale of books, magazines and newspapers 5235 Retail sale of books, office and school supplies, including newspapers and magazines 71306 Renting of books, journals and magazines
Libraries	9231	9231 Library and archive activities

Box 5. Music, theatrical productions, opera

Economic Activity	ISIC Rev 3.1	PSIC
Composers, lyricists, arrangers, choreographers, writers, directors, performers and other personnel	9214 9219 9249	9214 Dramatic arts, music and other arts activities 9219 Other entertainment activities n.e.c. 9249 Other recreational activities
Printing and publishing of music	2213	2213 Publishing of music
Production/manufacturing of recorded music	2230	2240 Reproduction of recorded media
Wholesale and retail of recorded music (sale and rental)	5233 7130 5139	52335 Retail sale of musical instruments and records, tapes, and cartridges 71304 Renting of audio-video machines, tapes and records 51389 Wholesale of miscellaneous consumer goods n.e.c.
Artistic and literary creation and interpretation	9214	9214 Dramatic arts, music and other arts activities
Performances and allied agencies (bookings, ticket agencies, etc.)	9214	9214 Dramatic arts, music, and other arts activities 9249 Other recreational activities

Box 6. Motion picture and video

Economic Activity	ISIC Rev 3.1	PSIC
Writers, directors, actors	9214	9214 Dramatic arts, music, and other arts activities
Motion picture and video production and distribution	9211	9211 Motion picture and video production and distribution 9249 Other recreational activities

Motion picture exhibition	9212	9212 Motion picture, audio and video projection
Video rentals and sales, video on demand	7130	71304 Renting of audio-video machines, tapes and records
	9211	9211 Motion picture and video production and distribution 52335 Retail sale of musical instruments and records, tapes and cartridges
Allied services	2230	2240 Reproduction of recorded media

Box 7. Radio and television

Economic Activity	ISIC Rev 3.1	PSIC
National radio and television broadcasting companies	9213	9213 Radio and television activities
Other radio and television broadcasters	9213	9213 Radio and television activities
Independent producers	7499	74999 Miscellaneous business activities n.e.c.
Cable television (systems, channels)	6420	64220 Transmission of radio and television broadcast
		92132 Television broadcasting and relay stations and studios including closed circuit television services
Satellite television	6420	64220 Transmission of radio and television broadcasts
		92132 Television broadcasting and relay stations and studios including closed circuit television services
Allied services	9213	9213 Radio and television activities

Box 8. Photography

Economic Activity	ISIC Rev 3.1	PSIC
Studios and commercial photography	7494	7494 Photographic activities
Photo agencies and libraries	2222	2222 Service activities related to printing
	7499	7499 Other business activities n.e.c.
	9231	9231 Library and archive activities

Box 9. Software and databases

Economic Activity	ISIC Rev 3.1	PSIC
Programming, development and	7221	7221 Software publishing

design, manufacturing	7229	7229 Other software consultancy and supply
Wholesale and retail of pre-packaged software (business programs, video games, educational programs, etc.)	5151	5160 Wholesale of computers, computer peripheral equipment and software 5273 Retail sale of computer software
Database processing and publishing	7240 7230	7230 Data processing 7240 Database activities and online distribution of electronic content 7330 Research and experimental development in information technology

Box 10. Visual and graphic arts

Economic Activity	ISIC Rev 3.1	PSIC
Artists	9214	92143 Individual artists activities
Art galleries and other wholesale and retail	9214	9232 Art galleries
Picture framing and other allied services	7494	74949 Photographic activities n.e.c.
Graphic design	9214 7499	92143 Individual artist activities 74999 Miscellaneous business activities n.e.c.

Box 11. Advertising services

Economic Activity	ISIC Rev 3.1	PSIC
Agencies, purchasing services	7430	7430 Advertising

Box 12. Copyright collecting societies

Economic Activity	ISIC Rev 3.1	PSIC
Agencies, purchasing services	7430	7430 Advertising

4.2. Economic Contribution of Core Copyright-Based Industries

The contribution of core copyright-based industries to the number of establishments, employment, and GDP for 1999 is summarized in the following tables. A column for GDP contribution from the 2003 ASPBI is included for CBI that is comparable with the 2000 coverage.

Table 4. Size and contribution of core copyright-based industries

PSIC	Core Copyright-Based Industry	Number of Establishments		Employment		Value Added Amount (P000)	1999 VA as % of GDP	2003 VA as % of GDP
		No.	% of total	No.	% of total			
	All Large Establishments	28245	100	2853889	100	1226892217		
	Total Core	4469	15.82	251469	8.81	105450912	3.54	
	Total excluding distribution	1148	4.06	86398	3.03	42579877	1.43	
	Press and Literature	3541	12.54	177376	6.22	63407733	2.13	
221*	Publishing	69	0.24	6721	0.24	3536545	0.12	0.10
222*	Printing and related services	331	1.17	16247	0.57	3934092	0.13	
223*	Publishing and printing	7	0.02	537	0.02	618719	0.02	
9220	News agency activities	5	0.001	29	0.001	126420	0.004	n.a.
7499*	Other business activities, n.e.c.	55	0.19	3399	0.12	661291	0.02	
(513)	Wholesale of household goods	414	1.46	31016	1.09	23388182	0.79	0.42
(523*)	Other retail trade of new goods in specialized stores	2665	9.43	119427	4.18	31142485	1.05	
	Music, Theater, Opera	252	0.89	23099	0.81	11726015	0.39	
9214*	Dramatic arts, music, other arts	17	0.06	922	0.03	368724	0.01	0.24
9219	Other entertainment n.e.c.	55	0.19	2624	0.09	1601315	0.05	(all 921)
9249	Other recreational activities	151	0.53	18765	0.66	9670264	0.32	
7130*	Renting of personal and household goods	29	0.10	788	0.03	85713	0.003	0.0008
	Motion Picture and Video	60	0.21	3022	0.11	2233413	0.08	
9211	Motion picture and video production and distribution	15	0.05	1607	0.06	1106171	0.04	0.24
9212	Motion picture projection	45	0.16	1415	0.05	1127241	0.04	(all 921)
	Radio and Television	138	0.49	12777	0.45	13629900	0.46	
9213	Radio and television activities	121	0.43	7829	0.27	6215629	0.21	
6422	Telecommunications – transmission of radio/TV broadcasts	17	0.06	4948	0.17	7414271	0.25	
	Photography	19	0.07	1002	0.04	122461	0.004	
7494*	Photographic activities	19	0.07	1002	0.04	122461	0.004	0.002
	Software and Databases	322	1.14	27607	0.97	11444727	0.38	
7220	Software consultancy and supply	10	0.04	674	0.02	298149	0.01	0.13
7230	Software development	30	0.11	1860	0.07	947084	0.03	(all 72)
7240	Data processing	37	0.13	9499	0.33	1717043	0.06	
7250	Database activities	3	0.01	946	0.03	142083	0.005	
(515)	Wholesale of machinery, equipment and supplies	242	0.86	14628	0.51	8340368	0.38	
	Visual and Graphic Arts	3	0.01	85	0.003	3837	0.0001	
923	Art galleries	3	0.01	85	0.003	3837	0.0001	
	Advertising	134	0.47	6502	0.23	2882825	0.01	
7430	Advertising	134	0.47	6502	0.23	2882825	0.01	0.07

NOTE: GDP was P2976.9M at current prices in 1999 and P4293M in 2003. Asterisks beside PSICs denote industries that are classified under multiple categories. PSICs in parentheses denote the distribution industries; a breakdown into 4-digit PSICs is unavailable. 100 percent value added is assumed for core.

SOURCE: 2000 CPBI, 2003 ASPBI and authors' calculations.

Table 5. Average size and productivity of core copyright-based industries

PSIC	Core Copyright-Based Industry	Number of Establish-ment	Employ-ment	Value Added	Employ-ment per Establish-ment	Value Added per Establish-ment (P000)	Value Added per Employ-ee (P000)
	All Large Establishments	28245	2853889	1226892217	101	43438	430
	Total Core	4469	251469	105450912	56	23595	419
	Total excluding distribution	1148	86398	42579877	75	37084	493
	Press and Literature	3541	177376	63407733	50	17905	330
221*	Publishing	69	6721	3536545	97	51254	526
222*	Printing and related services	331	16247	3934092	49	11885	242
223*	Publishing and printing	7	537	618719	77	88388	1152
9220	News agency activities	5	29	126420	103	454257	4391
7499*	Other business activities, n.e.c.	55	3399	661291	62	12023	196
(513)	Wholesale of household goods	414	31016	23388182	75	56493	754
(523*)	Other retail trade of new goods in specialized stores	2665	119427	31142485	45	11686	261
	Music, Theater, Opera	252	23099	11726015	92	46540	508
9214*	Dramatic arts, music, other arts	17	922	368724	54	21690	400
9219	Other entertainment, n.e.c.	55	2624	1601315	48	29115	610
9249	Other recreational activities	151	18765	9670264	124	64061	515
7130*	Renting of personal and household goods	29	788	85713	27	2956	109
	Motion Picture and Video	60	3022	2233413	50	37224	739
9211	Motion picture and video production and distribution	15	1607	1106171	107	73765	688
9212	Motion picture projection	45	1415	1127241	31	25050	797
	Radio and Television	138	12777	13629900	93	98800	1067
9213	Radio and television activities	121	7829	6215629	65	51369	794
6422	Telecommunications – transmission of radio/TV broadcasts	17	4948	7414271	292	437317	1498
	Photography	19	1002	122461	53	6445	122
7494*	Photographic activities	19	1002	122461	53	6445	122
	Software and Databases	322	27607	11444727	86	35543	415
7220	Software consultancy and supply	10	674	298149	67	29815	442
7230	Software development	30	1860	947084	62	31570	509
7240	Data processing	37	9499	1717043	257	46407	181
7250	Database activities	3	946	142083	315	47361	150
(515)	Wholesale of machinery, equipment and supplies	242	14628	8340368	60	34464	570
	Visual and Graphic Arts	3	85	3837	28	1271	45
9234	Art galleries	3	85	3837	28	1271	45
	Advertising	134	6502	2882825	49	21514	443
7430	Advertising	134	6502	2882825	49	21514	443

NOTE: Asterisks beside PSICs denote industries that are classified under multiple categories. PSICs in parentheses denote the distribution industries; a breakdown into 4-digit PSICs is unavailable. 100 percent value added is assumed for core.

SOURCE: 2000 CPBI and authors' calculations.

The core copyright-based industries as a whole contributed P105 billion or 3.54 percent of GDP in 1999. If the distribution industries are excluded, the GDP share is 1.43 percent. In 2003, the GDP contribution is shown only for directly comparable CBI, i.e., publishing, photographic activities, advertising, wholesale of household goods, and renting of personal and household goods, all of which dropped except in the case of advertising. Two other comparable CBI, news agencies and art galleries, do not have data for 2003 while the rest are not comparable owing to differences in coverage. A total comparable estimate for the core CBI in 2003 is thus not obtainable.

In the press and literature sector, other retail trade in specialized stores, wholesale of other goods, and printing and related services, in that order, had the highest number of establishments, the highest number of employees, and the highest value added. In addition, however, value added in publishing was close to that of printing. Excluding news agencies for which the data was extrapolated, publishing also registered the highest average employment while publishing and printing showed the highest average productivity per establishment and per employee. The high number of establishments in the sub-sectors reflects easy entry and competition.

In the music, theater and opera sector, other recreational activities headed all indicators except in the case of employee productivity which was led by other entertainment not elsewhere classified. Dramatic arts, music and other arts, however, suffered from a negative value added, which indicated that costs exceeded value of output. The sub-sector also employed an average of 11 persons per firm.

In the motion picture and video sector, motion picture projection firms were more numerous and employed the greater number but value added was similar to that of motion picture production and distribution firms. As a result the latter exhibited higher average size and productivity per establishment. However employee productivity was still higher in projection.

In the radio and television sector, radio and television had more firms and employees, but value added was higher in telecommunications, which therefore also showed substantially greater average employment and productivity levels.

Among the software and databases, but excluding the wholesale sub-sector, data processing employed the most and contributed the highest total value added. However establishment productivity was higher, although only slightly, in database activities, which consisted of only three firms. Nevertheless, software developers were on average the most productive.

In the visual and graphic arts sector, there are few art galleries, employment figures are relatively low and average value added is also low. Photography businesses are more numerous and both employment and value added are higher, with correspondingly higher average productivity.

Advertising is also made up of numerous establishments, signifying a competitive structure, and contributes almost P3 billion in value added to the economy.

When comparing all core sub-sectors, the highest average productivity was recorded by telecommunications and publishing and printing (aside from news agencies) which brought in over P1 million each. Sub-sectors whose productivity greatly exceeded the national average were wholesale of household goods, motion picture projection, production and distribution, radio and television, software development, other entertainment, other recreational activities, publishing, and wholesale of machinery.

Figure 1. Share of core copyright-based industries in the Philippines
Number of establishments (percent)

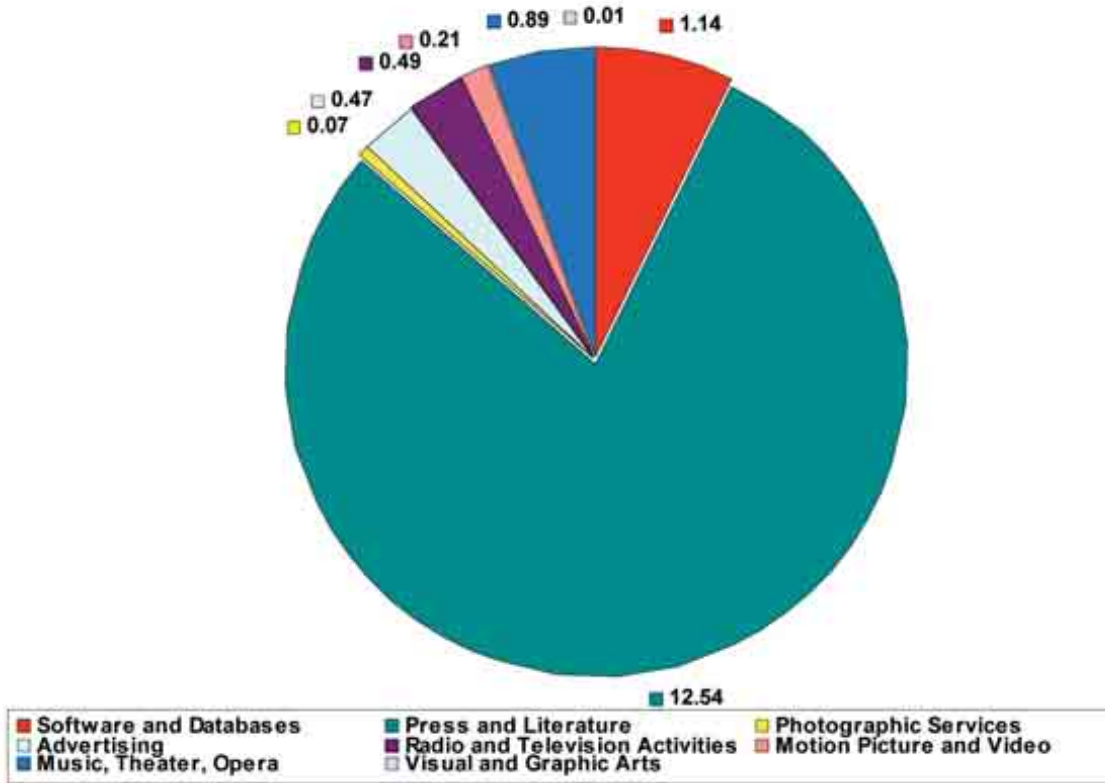


Figure 2. Share of core copyright-based industries in Philippine employment (percent)

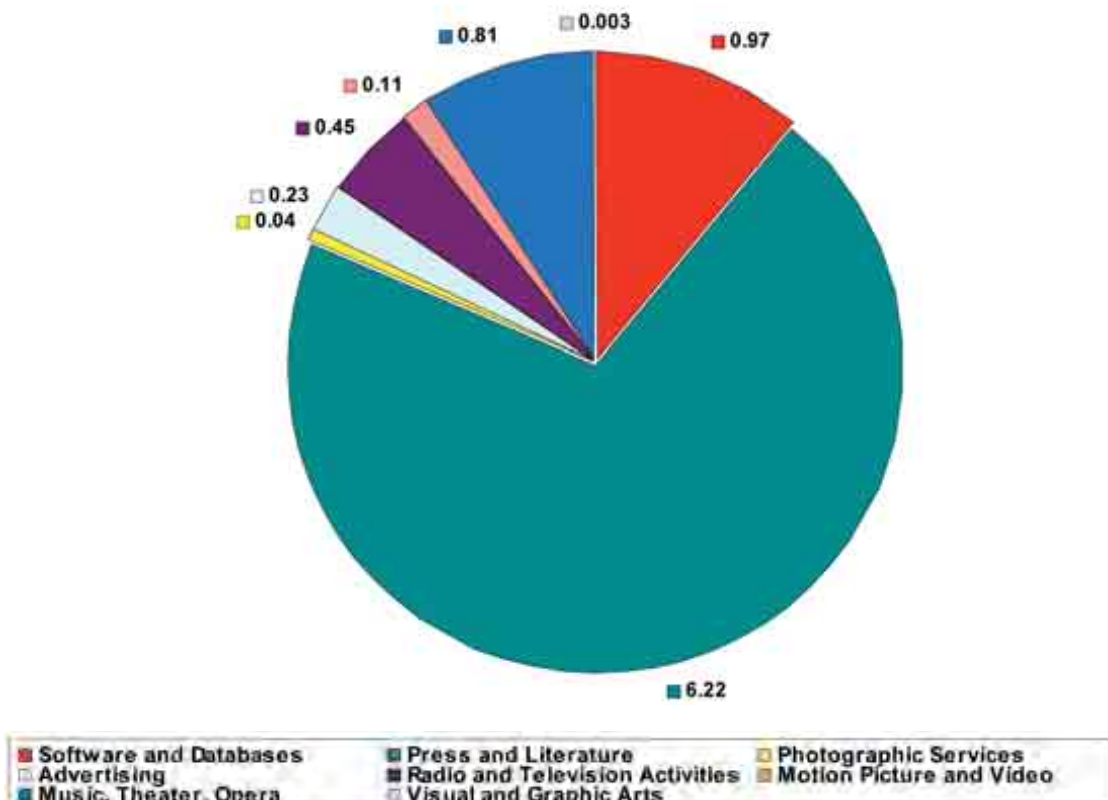
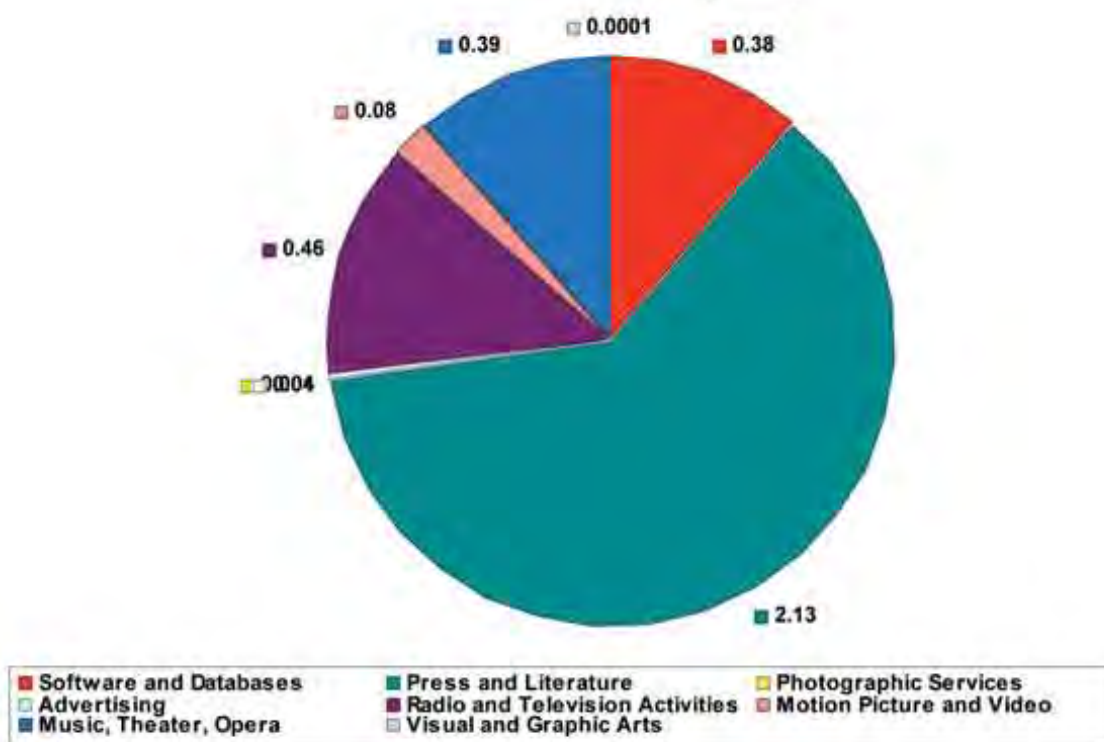




Figure 3. Value added share of core copyright-based industries in Philippine gross domestic product (percent)



A list of establishments from the 2003 Top 7000 Corporations classified under the core copyright industry is found in Annex A, together with their gross revenues for 2002. This gives an indication of the magnitude of operations of the different companies and the industry leaders in certain sectors.

5. Interdependent copyright-based industries

5.1. Coverage

Interdependent copyright-based industries are industries that are engaged in the production, manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter. They consist of the following:

Box 13. Interdependent copyright-based industries

Economic Activity: Manufacture, wholesale and retail (sales and rental) of:	ISIC Rev 3.1	PSIC
TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic gaming equipment and other similar equipment	3230 5139 5233 7130	3240 Manufacture of television and radio transmitters, receivers, sound or video recording or reproducing apparatus and associated goods 51391 Wholesale of household-type appliances, except radio and television equipment 51393 Wholesale of radio and television, including parts and accessories 52333 Retail sale of household appliances 52334 Retail sale of radio and television, including parts and accessories 52339 Retail sale of household appliances, articles and equipment, n.e.c. 71303 Renting of electrical appliances 71304 Renting of audio-video machines, tapes and records
Computers and equipment	3000 5151 7123	3020 Manufacture of computers, computer peripheral equipment and accessories 5160 Wholesale of computers, computer peripheral equipment and software 52362 Retail sale of computers, peripherals and accessories 5271 Retail sale of computers 5272 Retail sale of computer peripheral equipment 7124 Renting of computers and computer peripheral equipment
Musical instruments	3692 5139 5233	392 Manufacture of musical instruments 51384 Wholesale of musical instruments, sporting goods and toys 52335 Retail sale of musical instruments and records, tapes, and cartridges
Photographic and cinematographic instruments	3320 5139	3320 Manufacture of optical instruments and photographic equipment 51383 Wholesale of photographic and optical goods

	5239 7129	52397 Retail sale of photographic equipment and supplies 7129 Renting of other machinery and equipment, n.e.c.
Photocopiers	3000 5159	30114 Manufacture of photocopying apparatus incorporating an optical system or of the contact type and thermo copying apparatus 51502 Wholesale of commercial machinery and equipment 5180 Wholesale of other machinery, equipment and supplies
Blank recording material	2429 5152 5233	24299 Manufacture of miscellaneous chemical products, n.e.c. 5170 Wholesale of electronic parts and equipment 52335 Retail sale of musical instruments and records, tapes and cartridges
Paper	2101 5149 5239	2101 Manufacture of pulp, paper and paperboard 51385 Wholesale of paper and paper products 5235 Retail sale of books, office and school supplies, including newspapers and magazines

5.2. Economic Contribution of Interdependent Copyright-Based Industries

The contribution of interdependent copyright-based industries to 1999 employment and value added figures is summarized below, including that of comparable CBI in 2003.

Table 6. Economic contribution of interdependent copyright-based industries

PSIC	Interdependent Copyright-Based Industry	Employment x factor		Value Added x factor Amount (P000)	VA per Employee (P000)	1999 VA as % of GDP	2003 VA as % of GDP
		No.	% of total				
	Total Large Establishments	2853889	100	1226892217	430		
	Total Interdependent	41085	1.4	28429503	692	0.96	
324	Manufacture of TV and radio receivers, sound or video recorders or reproducers, associated goods, photographic equipment	5831	0.20	4642637	796	0.16	0.07
300*	Manufacture of office, accounting, computing machinery	12098	0.42	6424447	531	0.22	
712*	Renting of other machinery and equipment	1173	0.04	306046	261	0.01	
392	Manufacture of musical instruments	133	0.005	26649	200	0.001	n.a.
332	Manufacture of optical instruments and photographic equipment	2495	0.09	577860	232	0.02	

(242)	Manufacture of other chemical products	8119	0.28	10745946	1324	0.36	
514	Wholesale of other intermediate products, waste and scrap	5226	0.18	2590217	496	0.09	0.06
210	Manufacture of pulp, paper and paperboard	6011	0.21	3115703	518	0.10	0.08

NOTE: GDP was P2976.9 million at current prices in 1999 and P4293 million in 2003. Asterisks beside PSICs denote industries that are classified under multiple categories. PSICs and values in parentheses do not have a 4-digit breakdown. PSICs that were already classified under the core are excluded, i.e., 513, 523, 515, 7130. Value added and employment figures were calculated assuming the Singapore factors.

SOURCE: 2000 CPBI, 2003 ASPBI, and authors' calculations.

Taken together, interdependent copyright-based industries contributed P28 billion or 0.96 percent of GDP in 1999, and comprised 1.4 percent of employees in large establishments. In 2003, the GDP shares of comparable CBI, i.e., radio and television manufacturers, pulp paper and paperboard makers, and wholesalers of other intermediate products, were lower than their respective 1999 shares.

Office, accounting and computing machine manufacturers employed the highest numbers. Manufacturers of other chemical products produced the highest total value added in both absolute and per employee terms, followed by manufacturers of office, accounting and computing machines and of television and radio receivers, sound or video recorders or reproducers.

Average employee productivity for the whole sector was substantially higher than the national average, and aside from the top three above, also covers pulp and paper manufacturers and wholesalers of other intermediate products.

6. Partial copyright-based industries

6.1. Coverage

Partial copyright-based industries are industries in which a portion of the activity is related to works and other protected subject matter and may involve creation, production and manufacture, performance, broadcast, communication and exhibition or distribution and sales. They consist of the following:

Box 14. Partial copyright-based industries

Economic Activity	ISIC Rev 3.1	PSIC
Apparel, textiles and footwear	1810	181 Ready-made garment manufacture 182 Custom tailoring and dressmaking 189 Manufacture of wearing apparel, n.e.c.
	1721	1721 Manufacture of made-up textile articles except wearing apparel
	1920	192 Manufacture of footwear
	5131	5131 Wholesale of textiles, clothing, footwear and leather goods
	5232	5232 Retail sale of textiles, clothing, footwear and leather goods
Jewelry and coins	3691	391 Manufacture of jewelry and related articles
	5139	51387 Wholesale of watches, clocks and jewelry
	5239	52396 Retail sale of jewelry, watches and clocks
Other crafts	9199	9199 Activities of other membership organizations, n.e.c.
	5239	52392 Retail sale of art goods, marble products, painting and artists' supplies
Furniture	3610	360 Manufacture and repair of furniture
	5139	51392 Wholesale of household furniture, furnishings and fixtures 52331 Retail sale of home furnishing, furniture and fixtures
	7130	71302 Renting of furniture
Household goods, china and glass	2610	2610 Manufacture of glass and glass products
	173	173 Manufacture of knitted and crocheted fabrics and articles 2014 Manufacture of wood carvings Manufacture of wooden containers and wood wares 2018 Manufacture of wooden window and door screens, shades and Venetian blinds 2019 Manufacture of other wood products except furniture, n.e.c. Manufacture of rattan and cane containers Manufacture of articles of cork, straw and plaited materials
		2029 Manufacture of products in bamboo, cane, rattan, and the like, and plaited materials except furniture, n.e.c.

	2899 5139	2899 Manufacture of other metal products, n.e.c. 51394 Wholesale of chinaware, glassware, earthenware, wood wares, plastics, cutlery and utensils 51396 Wholesale of handicraft products
	5233	52332 Retail sale of chinaware, glassware, earthenware, wood wares, plastics, cutlery and utensils 52336 Retail sale of handicrafts
Wall coverings and carpets	1722 2109 5239	1722 Manufacture of carpets and rugs 2109 Manufacture of other articles of paper and paperboard 51395 Wholesale of wallpaper and floor coverings
Toys and games	3694 5139 5239	394 Manufacture of games and toys 51384 Wholesale of musical instruments, sporting goods and toys 52394 Retail sale of toys, gifts and novelty goods
Architecture, engineering, surveying	7421	7421 Architectural and engineering activities and related technical consultancy
Interior design	7499	74995 Interior decoration services
Museums	9232	9232 Museum activities and preservation of historical sites and buildings

6.2. Economic Contribution of Partial Copyright-Based Industries

The contribution of partial copyright-based industries to 1999 employment and value added is summarized below, including that of comparable CBI in 2003:

Table 7. Economic contribution of partial copyright-based industries

PSIC	Partial Copyright-Based Industry	Employment x factor		Value Added x factor Amount (P000)	VA per Employee (P000)	1999 VA as % of GDP	2003 VA as % of GDP
		No.	% of total				
	Total Large Establishments	2853889	100	1226892217	430		
	Total Partial	6266	0.22	1059551	169	0.036	
172	Manufacture of other textiles	73	0.003	12924	176	0.0004	
181	Ready-made garment manufacturing	417	0.01	61726	148	0.002	0.002
182	Custom tailoring and dressmaking	35	0.001	3483	98	0.0001	0.0006 (182 to 189)
189	Manufacture of wearing apparel, n.e.c.	127	0.04	21604	171	0.0007	
192	Manufacture of footwear	72	0.002	9417	130	0.0003	
391	Manufacture of jewelry and related articles	562	0.02	158122	281	0.005	

360	Manufacture and repair of furniture	2705	0.09	483601	179	0.016	0.012
173	Manufacture of knitted and crocheted fabrics and articles	80	0.003	10825	135	0.0003	
201	Manufacture of wood and wood products except furniture	91	0.003	18436	203	0.0006	0.0006 (201 to 202)
202	Manufacture of products in bamboo, cane, rattan and the like, plaited materials except furniture; other wood products	30	0.001	4735	157	0.0002	
261	Manufacture of glass and glass products	31	0.001	18855	610	0.0006	0.0007
289	Manufacture of other metal products; metalworking service activities	152	0.01	36636	242	0.001	
394	Manufacture of games and toys	1749	0.006	180977	103	0.006	
742	Architectural and engineering, related technical consultancy	122	0.004	33939	279	0.001	0.008
9232, 9239	Museums, preservation of historical sites and buildings, other cultural activities	19	0.001	4270	225	0.0001	

NOTE: GDP was P2976.9 million at current prices in 1999 and P4293 million in 2003. PSICs that were already classified under the core are excluded, i.e., 513, 523, 7130, 7499. Value added and employment figures were calculated assuming the Singapore factors.

SOURCE: 2000 CPBI, 2003 ASPBI, and authors' calculations.

Taken together, large, partial copyright-based industries employed 6,266 persons or 0.2 percent of the total employed in large establishments and contributed P1.1 billion value added or 0.04 percent of GDP. Roughly the same breakdown was seen in 2003 by directly comparable CBI, i.e., ready-to-wear garment manufacturers, furniture, and glass products manufacturers. Furniture makers employed the highest number of persons and added the greatest value to the economy, followed by games and toy manufacturers, and jewelry manufacturers. Average employee productivity of the whole sector was lower than the national average, owing mainly to glass manufacturing being the only industry that outstripped it.

7. Non-dedicated support industries

7.1. Coverage

Non-dedicated support industries are industries in which a portion of the activity is related to facilitating broadcasting, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright-based industries. They consist of the following:

Box 15. Non-dedicated support industries

Economic Activity	ISIC Rev 3.1	PSIC
General wholesale and retail	51	511 Wholesale on a fee or contract basis
		513 Wholesale of household goods
		515 Wholesale of machinery, equipment, and supplies
		516 Wholesale of computers, computer peripheral equipment and software
		517 Wholesale of electronic parts and equipment
		518 Wholesale of other machinery, equipment, and supplies
	52	519 Other wholesale
		521 Non-specialized retail trade in stores
		523 Other retail trade of new goods in specialized stores
		525 Retail trade not in stores
		527 Retail sale of computers, computer peripheral equipment, and software
		528 Retail sale of communications equipment
General transportation	60	601 Land transport operations
		602 Transport via pipelines
		609 Other land transport operations
	61	61 Water transport
	62	62 Air transport
	630	631 Cargo handling
		632 Support and auxiliary activities to water transport
		633 Support and auxiliary activities to air transport
		634 Storage and warehousing
		635 Activities of tour and travel agencies and tour operators; tourist assistance activities, n.e.c.
	641	639 Activities of other transport agencies
		641 Postal and courier activities
Telephony and Internet	6420	642 Telecommunications
	7240	7240 Database activities and online distribution of electronic content

7.2. Economic Contribution of Non-Dedicated Support Industries

The contribution of non-dedicated support services to employment and value added is summarized below, including that of comparable CBI in 2003:

Table 8. Economic contribution of non-dedicated support industries

PSIC	Non-Dedicated Support Industry	Employment x factor		Value Added x factor	VA per Employee (P000)	1999 VA as % of GDP	2003 VA as % of GDP
		No.	% of total	Amount (P000)			
	Total Large Establishments	2853889	100	1226892217	430		
	Total Non-Dedicated Support	17965	0.6	8597246	479	0.29	0.11
511	Wholesale on a fee or contract basis	681	0.02	280521	412	0.009	0.003
521	Non-specialized retail trade in stores	6404	0.2	1962247	306	0.07	0.03
601	Land transport operation	2678	0.09	557556	208	0.02	0.92
609	Other land transport	291	0.01	52230	179	0.002	0.0006
611	Sea and coastal water transport	1042	0.04	556444	534	0.02	0.01
620	Air transport	599	0.02	292018	487	0.01	0.03
634	Storage and warehousing	259	0.01	82903	320	0.003	0.0005
635	Tour and travel agencies and tour operators, tourist assistance, n.e.c.	281	0.01	81215	289	0.003	0.002
639	Other transport agencies	1250	0.04	401257	321	0.01	0.006
641	Postal and courier activities	189	0.01	33459	177	0.001	0.0007
612 to 613	Inland water transport and renting of ship with crew	47	0.002	13592	288	0.0004	
631 to 633	Support activities for land, water, and air transport	1602	0.06	325794	203	0.01	0.01
642	Telecommunications – telephony	2641	0.09	3958010	1498	0.13	n.a.
NOTE: GDP was P2976.9M at current prices in 1999 and P4293M in 2003. PSICs that were already classified under the core are excluded, i.e., 7250. Value added and employment figures were calculated assuming the Singapore factors.							

SOURCE: 2000 CPBI, 2003 ASPBI, and authors' calculations.

Non-dedicated support industries as a whole employed 0.6 percent of the total large establishment workforce, and contributed 0.29 percent to GDP in 1999. Telecommunications (telephony only) contributed substantially to value added and employment, while non-specialized retail stores employed the most workers. Land and sea transport added sizeable output as well. Owing to its considerable value added, telecommunications led the sector with a P1.5 million average labor productivity figure, and together with transport industries, raised the sectoral average value added per worker to beyond the national average.

The 2003 contribution to GDP for the whole sector should be comparable with the 1999 figure since the 3-digit PSICs from the ASPBI and CPBI are in full correspondence. However, the absence of data for telecommunications (telephony) is likely to substantially affect the total, rendering comparison difficult.

8. Indicators of Copyright Activity and Usage

Expenditures on research and development (R&D) were recorded under the 2000 CPBI, while the 2003 ASPBI added a question on the value of intangible assets per establishment. While it is recognized that these results do not provide accurate and complete estimates of copyright materials used or produced by copyright-based industries for reasons given in Section 1.3, they could indicate copyright activity in each industry.

Table 9. R&D expenditures and value of intangible assets in copyright-based industries

PSIC	Copyright-Based Industry	2000 R&D		2003 R&D		2003 Intangible Assets	
		Value (P000)	as % of Costs	Value (P000)	as % of Costs	Value (P000)	as % of Fixed Assets
	ALL	880373	0.077	2563136	0.2	5130632	0.6
	CORE	62339	0.015	333982	0.07	2073977	0.38
	Press and Literature						
221*	Publishing	2	0.00004	184259	2.3	9450	0.26
222*	Printing and related services	2238	0.024	841	0.012	102239	2.86
223*	Publishing and printing	138	0.044				
9220	News agency activities	Under 921					
7499*	Other business activities, n.e.c.			405	0.015	128	0.006
(513)	Wholesale of household goods	2480	0.002	36165	0.036	72316	1.26
(523*)	Other retail trade of new goods in specialized stores					342643	1.9
	Music, Theater, Opera						
9214*	Dramatic arts, music, other arts	Under 921		Under 921			
9219	Other entertainment, n.e.c.	Under 921		Under 921			
924	Sporting and other recreational activities			1446	0.011	92771	0.34
7130*	Renting of personal and household goods					70	0.15
	Motion Picture and Video						
921	Motion picture, radio, TV, other entertainment	2023		68771	0.37	11217	0.04
9212	Motion picture projection	Under 921		Under 921			
	Radio and Television						
9213	Radio and television activities	Under 921		Under 921			
642*	Telecommunications			6131	0.004	1346707	0.3
	Photography						
7494*	Photographic activities						
	Software and Databases						
7220	Software consultancy and supply	41447	9.06				
7230	Software development	10027	1.20				
7240	Data processing	133	0.008				
7250	Database activities						
(515)	Wholesale of machinery, equipment and supplies					95883	3.47
	Visual and Graphic Arts						

923*	Library, archives, museums, art galleries, other cultural activities	3851	3.27	3135	2.28	500	1.36
	Advertising						
7430	Advertising			32830	1.26	53	0.006
	INTERDEPENDENT	747476	0.20	2119703	0.54	1007882	0.91
324	Manufacture of TV and radio receivers, sound or video recorders or reproducers, associated goods, photographic equipment	9854	0.045	83049	0.21	36772	0.48
300*	Manufacture of office, accounting, computing machinery	44153	0.039	1732568	1.16	2067	0.013
712*	Renting of other machinery and equipment	0		2	0.0001	127	0.006
392	Manufacture of musical instruments	0					
332	Manufacture of optical instruments and photographic equipment	4551	0.12	13901	0.068	304	0.003
(242)	Manufacture of other chemical products	672598	0.80	259602	0.25	900139	2.6
514	Wholesale of other intermediate products, waste and scrap	57	0.00005	4170	0.009	15549	0.1
210	Manufacture of pulp, paper and paperboard	16263	0.065	26411	0.08	52924	0.22
	PARTIAL	65644	0.077	109411	0.075	855351	1.86
172	Manufacture of other textiles	13942	0.23	7188	0.04	18941	0.37
181	Ready-made garments manufacturing	1229	0.006	25462	0.09	132158	2.32
182	Custom tailoring and dressmaking	0		1058	0.01	1531	0.11
189	Manufacture of wearing apparel, n.e.c.	2126	0.031				
192	Manufacture of footwear	1263	0.038	2281	0.03	927	0.03
391	Manufacture of jewelry and related articles	7570	1.0	23050	0.3	784	0.04
360	Manufacture and repair of furniture	12577	0.15	8590	0.07	3361	0.10
173	Manufacture of knitted and crocheted fabrics and articles	4895	0.12				
201	Manufacture of wood and wood products except furniture	578	0.01	2945	0.03	257240	3.72
202	Manufacture of products of bamboo, cane, rattan and the like, plaited materials except furniture; other wood products	842	0.06				
261	Manufacture of glass and glass products	10650	0.2	519	0.006		
289	Manufacture of other fabricated metal products; metalworking service activities	2798	0.02	2655	0.006	440409	3.54
394	Manufacture of games and toys	166	0.03	Under 391			
742	Architectural and engineering, related technical consultancy	7008	0.18	35663	1.15		

9232, 9239	Museums, preservation of historical sites and buildings, other cultural activities						
	NON-DEDICATED SUPPORT	4914	0.002	40	0.00001	1193422	0.72
511	Wholesale on a fee or contract basis	0		40	0.001		
521	Non-specialized retail trade in stores	0				791405	3.98
601	Land transport operation	0				134732	1.0
609	Other land transport	0				108	0.01
611	Sea and coastal water transport	0				421	0.002
620	Air transport	770	0.003				
634	Storage and warehousing	0					
635	Tour and travel agencies and tour operators; tourist assistance, n.e.c.	0				464	0.15
639	Other transport agencies	1901	0.013			187977	6.22
641	Postal and courier activities	0					
612 to 613	Inland water transport and renting of ship with crew					27	0.1
631 to 633	Support activities to land, water, and air transport	2243	0.04			78288	5.23
NOTE: PSIC aggregations were not always identical between the CPBI and ASPBI since the latter included other 3-digit PSICs within certain groups. Asterisks beside PSICs denote multiple industry categories while those in parentheses denote the absence of 4-digit subcategories.							

SOURCE: 2002 CPBI and 2003 ASPBI.

Taken together, copyright-based industries spent P880 million on R&D in 1999 and P2.5 billion in 2003, an increase in both absolute terms as well as in proportion to total costs. Of this, interdependent CBI devoted the highest amounts of P747 million and P2.1 billion in 1999 and 2003 respectively, compared with P62 million and P334 million from core CBI, P65 million and P109 million from partial CBI, and P4 million and P40,000 in 1999 and 2003 from non-dedicated support industries respectively. At the industry level, manufacturers of office, accounting, and computing machinery were ranked as the highest spenders, followed by manufacturers of other chemical products.

Noting that intangible assets as estimated by the NSO encompass copyrights, trademarks, patents, goodwill, franchises and other forms, all CBI together invested P5.1 billion in 2003. Of these, core CBI recorded the most sizeable investments of P2.1 billion, relative to P1 billion from interdependent CBI; P855 million from partial CBI, and P1.1 billion from non-dedicated support industries. At the industry level, telecommunications and manufacturers of other chemical products outstripped all other sectors in purchasing.

9. Description of Selected Core Copyright-Based Industries

9.1. Press and Literature

Local book output figures may be obtained from the National Library records of International Standard Book Numbers (ISBN) which are assigned to every book, although copyright registration is an imperfect data source for copyright activity since it is not required by law (Bolasco 2004).

Table 10. ISBNs issued

	No. of ISBNs issued
1996	3770
1997	5093
1998	4326
1999	4803
2000	5083
2001	5663
2002	5193
2003	5570
2004	5139
2005	5429
2006	5713

Source: National Library, cited in www.nbdb.gov.ph

In 2004, a total of 442 (270 renewal and 172 new) stakeholders registered with the National Book Development Board,⁶ 65 percent more than the 268 registered stakeholders in 2003. This total is made up of 174 authors, 104 book publishers, 42 book printers, as well as three publishers of non-print information materials, 16 book importers, 51 book wholesalers, 36 book retailers, four importers of non-print information materials, seven retailers of non-print information materials (NBDB 2004).

Philippine book publishing is the most diverse, vibrant and innovative in Southeast Asia despite the absence of government support and multinational subsidiary initiatives. With an English-language base, artistic superiority, and capacity to articulate intellectual issues, Filipinos are expected to be the first to publish for the region (Bolasco 2004). Filipinos' excellent writing skills obtain them employment with top international publishing houses, such as McGraw-Hill and John Wiley, just as local book, comic book, and even animated cartoon illustrators are sought after internationally. The Philippines is thus a force to reckon with in the quality aspects of book publishing, i.e., quality of content and caliber of writing (Santos 2004).

⁶ The NBDB was asked to formulate a National Book Policy and a National Book Development Plan. Among the declared objectives of the National Book Policy are the following: (a) to create conditions conducive to development, production, and distribution of books, especially acquisition, and adoption of state-of-the-art technology, equipment and machinery for book publishing, (b) to obtain priority status for the book publishing industry, (c) to promote the effective distribution of books in domestic as well as international markets through an efficient and reliable postal and transport delivery system, and (d) to foster the development of skills of personnel engaged in book publishing through in-service training programs and formal degree and non-degree book publishing courses in schools. These objectives are "developmental" in nature.

The National Book Development Plan is expected, *inter alia*, to tackle important issues confronting the book publishing industry, particularly those related to authorship and creative activity, marketing and distribution, printing, readership, and the library system.

Book publishers have varied capacities, but textbook publishing is their main activity: 70 percent of their output consists of school textbooks and general reference books, 27 percent consists of monographs, tracts and miscellaneous publications, 4 percent literary works and 3 percent consists of academic publications of universities and research institutions (Buhain 2005).

Book publishers produce different books for various small markets. Although this entails larger per unit development costs, the inability to take advantage of economies of scale and the production of attractive full color books at reasonable prices, the operative phrase is “books that different groups of people will want to read and which are accessible to them.” Of around 40-50 fully-fledged publishers, 95 percent are textbook publishers who produce for a captive market in basic education in both private and public schools, a result of Republic Act 8047 of 1995 that allowed the privatization of public school textbooks (Bolasco 2004).

Since the Department of Education opened its textbook program, private publishers have printed 45 million textbooks and teachers’ manuals in the last six years. Print runs for private schools can range from 50,000 to 80,000 per title although only 15 percent of the elementary student population and 45 percent of the secondary student population are taught in private schools. Research-based and professionally-written materials that meet the Philippine Elementary and Secondary Schools Learning Competencies encourage quality titles for public school use (Buhain 2005): the lifespan of a textbook program is five years. College textbooks, which were extensively photocopied by students owing to the Marcos reprinting decree, are now locally developed and published under the new copyright law. After textbooks, the romantic paperback is the bestseller, taking over from comic book readership. Several publishers are now active in the market. Romantic novels sell 20,000 copies per title every month, and at an average release of 20 titles, they can generate a monthly gross of P14 million (Bolasco 2004).

Trade books compete through sturdy printing and binding, good quality paper, attractive covers and illustrations, accurate top-rate image reproductions, and easy readability in terms of both typeface and ideas. Whereas it took three to five years to sell 1,000 copies of a locally-produced title a decade ago, 3,000-10,000 copies now sell in a year. These include the works of the finest and most prominent journalists in the country. Literature is still the standard fare of publishing houses since it always pays to publish good literature. Children’s books are enjoying the biggest growth, given the 22 million children under the age of 12, and the local writers and illustrators who are developing indigenous children’s storybooks (Bolasco 2004). The important population growth, large youth/student population, high literacy levels, and high numbers of overseas Filipinos all contribute to a large and growing market for books (Buhain 2005).

The industry is composed of four sectors classified according to specific lines of business: printers-publishers, technical and commercial printers, industrial/package/label printers and firms with printing presses. These sectors engage in pre-press and graphic design enterprises and have set themselves up as one distinct segment. According to the 2001 data of the National Statistics Office, there are 4,307 publishing and printing establishments in the Philippines. Based on average capital, 60 percent may be classed as small (P500,000), 35 percent as medium (from P500,000 to P5 million) and only 5 percent as large (over P5 million). The total worth of the industry is over US\$100 million. Many of the smaller printers operate one or two presses. 85 percent of the printing companies use offset, while 15 percent use letterpress, gravure and flexography (State of the Philippine Printing Industry, n.d.).

The commodities and services offered by the industry include: (1) publication printing: books, pamphlets, newspapers, periodicals, magazines, journals; (2) commercial printing: business and office forms, brochures, posters, envelopes, school annuals, promotional/advertising materials, calendars, business cards, greetings

cards; (3) security printing: document stamps, postage stamps, bank forms and passbooks, legal tender, examination booklets, question and answer sheets for state-sponsored tests; (4) office supply printing: sheets for computer printers, invoices, receipts, and other business forms; (5) special printing, e.g., packaging: folding cartons, boxes, containers; (6) software-related services: pre-printing services, such as typesetting, color separations, electronic stripping, image manipulations, graphic illustrations, internet services such as web design (State of the Philippine Printing Industry, n.d.).

The printing-publishing sector accounts for 70 percent of total industry sales. Firms in this group engage in the publication of various products such as books, newspapers, magazines, journals, periodicals and pamphlets. With the exception of newspaper publishers, this sub-sector usually subcontracts out to foreign commercial printers. Only 6 percent publish newspapers and periodicals, due to the high set up costs, huge capital investment requirements and the established dominance of such publications as the Manila Bulletin, Philippine Daily Inquirer and the Philippine Star (State of the Philippine Printing Industry, n.d.).

Print media includes about 34 daily newspapers (including broadsheets and tabloids), and more than 100 magazines and publications covering diverse themes (entertainment, leisure, sports, hobbies and recreation, business and trade, religion, fashion, cookery, specific market segments, health, travel, IT, agriculture, etc.) and are issued weekly, fortnightly, monthly, bi-monthly or annually. Provincial newspapers and regional publications are also available (US Commercial Service 2004).

The segment serving the book market, about 3 percent of the industry, has recently found more channels for increased production sales. Technical and commercial printers account for 10 percent of the market share but comprise the majority of firms (90 percent) in the industry. Such firms are primarily engaged in small to medium commercial jobs such as government forms, advertising brochures, office and school papers/forms, posters, calendars, business cards, greetings cards. They use the smallest range of printing equipment in terms of runs and number of printers. The wide range of commodities and services makes this the most fragmented sector. Technical and commercial printers largely serve the domestic market but they also compete with printers based in neighboring countries. They compete in a US\$50 million market. Industrial/packaging/label printers have a 20 percent market share. They are also characterized by small to medium printing jobs but are unlike technical and commercial printers in that they mainly serve the manufacturing industry's requirements. Companies with in-house printing technologies are big conglomerate multinational and local enterprises established primarily to service their own printing requirements (State of the Philippine Printing Industry, n.d.).

Generally, there is keen competition in the industry, characterized by numerous and diverse competitors, slow industry growth, high fixed costs, and lack of differentiation. For bigger companies, there are high strategic stakes and high exit barriers. The large number of firms is a strong indicator that there are no major entry barriers into the industry (Tullao and Habaradas 2001).

The supply capability of the firms and the overall competitiveness of the industry are dependent on the quality of human resources, capital resources, and technology used. In the newspaper and publishing sub-sector: there is a constant supply of writers and editors who are adept in both English and Filipino. Together with the creativity of those involved in illustrations, photography, layout and design, these editors and writers have contributed to the publication of several well-written newspapers and magazines. In the book publishing and technical and commercial printing sub-sectors, there is a lack of formal training of technical and managerial personnel in publishing and printing. In terms of authors: there is a pool of talented writers of literature in English but a dearth of Filipino authors in the technical fields, which explains the dependence of the country on foreign textbooks for the tertiary level. Firms are, therefore, faced with the option of

training people on-the-job or head-hunting skilled individuals from other printing companies. For pre-press operations, however, there are highly skilled personnel involved in performing tasks such as editing, proofreading, layout and graphic design (Tullao and Habaradas 2001).

In terms of technological capability, many newspapers and magazines have shifted to more modern methods; some are even able to sustain online editions. Many book publishers have already integrated the use of information technology, the Internet and desktop publishing. For the technical and commercial printing sub-sector, a weakness of many companies is the lack of hi-tech equipment since small firms rarely invest in new equipment, and prefer to utilize reconditioned machines usually discarded in other countries. Some of the bigger companies, however, have invested in new printing and pre-press equipment, and have adopted the latest in scanning technology, digital camera technology, desktop publishing, color management, computer technologies, direct-to-press digital printing, digital proofing, and computer-to-plate systems (Tullao and Habaradas 2001).

Large book publishing companies offer vertically-integrated services from handling of the manuscripts to post-press operations, to expand their markets. Periodical publishers offer special publications geared towards particular types of readers. Large technical and commercial printers offer pre-press to post-press services: while many lack the capital to upgrade their printing capabilities, small ones compensate for this by establishing networks with others to specialize in particular services (State of the Philippine Printing Industry, n.d.). Small printers with hardly any capital to upgrade their equipment account for over 90 percent of the printers in the Philippines. Globalization and the entry of foreign printers with new technologies (bringing in new norms of speed, workmanship and price) have threatened their existence. The availability of more cost-effective printing systems and technologies has forced many local printers to downsize their operations and concentrate on or specialize in services where they have better-established facilities and expertise (de la Cruz 2004).

Local publishers of books, brochures, musical scores, and other publications compete among themselves and also with foreign publishers for a share of the local market. Foreign book publishers compete through any of the following methods: (1) selling directly to major bookstores; (2) appointing an agent in the Philippines; (3) working with booksellers who receive orders from clients and import their clients' requirements; or (4) granting reprint rights. Local publishers of newspapers, journals and periodicals compete largely among themselves for a share of the domestic market, but also with publishers of foreign newspapers and magazines for certain segments of the market. Commercial printers mainly service the domestic market. Numerous and diverse competitors make for keen competition in the industry. The 4000 printing and graphic imaging companies are still increasing in number due to rapid development of pre-press technology and a reduction in the cost of computer hardware (State of the Philippine Printing Industry, n.d.).

9.2. Motion Picture and Video

Film, the newest among Philippine arts, is the most popular art form. The first movies were shown in the Philippines in 1897 while films were first shot locally in 1898. The first film was made in 1909 while the first sound film was made in 1933; numerous movie houses were also established between these dates. The government recognized the potential of film as a communication and information tool as early as 1909 (Bautista, 1995).

Filipinos however first made movies in 1919. The 1930s were a time of discovering film as a new art form using stories from theater and popular literature that assured the filmmaker of their appeal. Nationalistic films were also in vogue despite early restrictions that considered them as too subversive. The 1940s and

the Second World War brought a new sense of reality, as filmmakers ventured into the genre of the war movie. The 1950s were the golden years, a time when film-making matured and became more “artistic,” not because the film content improved but because cinematic techniques achieved an artistic breakthrough, including the use of color. This new consciousness was further encouraged by international recognition. The studio system, although producing film after film and venturing into every known genre, made the film industry into a monopoly that inhibited the development of independent cinema. The 1960s, though a time of positive changes, brought about an artistic decline in films and rampant commercialism. The notorious “bomba” (sexy films) were introduced and have been present on the film scene ever since. The 1970s and 1980s were turbulent years, bringing positive and negative changes, as films dealt with more serious topics of the chaotic Marcos regime; alternative cinema was also born. Action and sex films were more explicit. In the 1990s, a downturn seems to have taken place as genres, plots, characterization and cinematic styles either imitate popular American films or revert to the same old themes. Some films have been both commercial and critical successes (History of Philippine Cinema, n.d.).

Throughout the 1980s, the Philippines ranked among the top 10 film-producing countries in the world, although the industry was beset with many problems and the number of films was down from the 1971 peak of 251 to 139 in 1987, with 40 production companies (Garcia and Masigan 2001). While it has produced world class directors, talents, and titles, the industry’s survival is ironically in doubt. Some factors restricting the growth of the industry include escalating costs of film production, exorbitant taxes (amusement tax, culture tax, flood tax, and tax on raw materials), falling box-office receipts for domestic films, idiosyncratic film censorship, film piracy, the “star system” which entails large fees that eat up a big proportion (25 percent) of the budget, and cable TV (PIA 1998). In addition there is limited government support; interpersonal and inter-group conflicts in the cinema industry and dominance of the big players.

The film industry is composed mainly of three interdependent business sectors: 1) film production; 2) film distribution; and 3) film screening. Producers bankroll film production. In 1999, they produced a total of 140 films a year, making up a third of films shown, and making it the fourth largest cinema industry in the world. Most local producers also distribute their own films, while others enter into a distribution agreement with larger film companies. Distribution makes up the next phase in the film business. Film distributors fall into three categories: major (the large US companies),⁷ independent (who distribute films of the majors and independent companies),⁸ and local distributors.⁹ Exhibitors¹⁰ provide quality theaters, show the film according to timetables set by the distributors, provide additional in-house marketing, and seek theatrical opportunities – i.e., theaters act as a distribution channel for movies although they can still perform promotional activities. The industry also offers production or laboratory facilities and some new digital-oriented production houses with state-of-the art facilities (Garcia and Masigan 2001).

The commercial cinema industry alone provides employment for more than 75,000 people. It also generates more than P400 million annually for the government in the form of taxes. About 450,000 people directly benefit, including film producers and distributors (actors, directors, etc.), employees and workers in the theaters, and other related cinema businesses. The mainstay of the industry is the feature film, and primary outlets are theaters, followed by television and video venues. Foreign films have had a strong presence in

⁷ As of 1998, consisted of Warner Bros., Viva (for 20th Century Fox, Paramount, Universal, Metro-Goldwyn-Mayer, and Dreamworks) and Columbia (for Columbia TriStar and Buenavista).

⁸ As of 1998, consisted of Pioneer, Sky-Jemah (for Miramax), Viva (for 20th Century Fox, Paramount, Universal, Metro-Goldwyn-Mayer, and Dreamworks) and Columbia (for Columbia TriStar and Buenavista).

⁹ As of 1998, consisted of Regal Entertainment, Viva, GMA, Star Cinema, Seiko, Solar, Millennium, OctoArts, MAQ, RS, Good Harvest, Neo, Falcon, Taurus, Starlight, Rainbow, Shangten, Scorpio, Starlight, Premier, Reyna, FPJ, RVQ, Diamond Harvest.

¹⁰ As of 1998, consisted of SM, Ayala, Metro Manila Theater Association, Greater Manila Theater Association, and Robinson’s.

the domestic market since their unrestricted influx in the '70s and they continue to capture the attention of the Filipino audience (Garcia and Masigan 2001).

The process of filmmaking starts with the conceptualization of the story and scripts and translating them into a screenplay, then actual production or shooting of the film, post-production, and marketing and distributing the film to exhibitors take place. Film scripts are taken from award winning novels or written by script writers; competitions are also conducted to find the best stories. A director is hired to shoot the film and in the pre-production stage becomes involved with the producer in the hiring of the key technical crew members such as the cinematographer, sound engineer, lighting engineer, and other members of the production staff. Together with the producer, they identify the actors who will play the various roles. During the actual shooting, the makeup/prosthetic artists and the props staff are needed for continuity and visual impact. Post-production includes animators if needed and various technical engineers. Upon completion, the services of the press relations officer, the publicity writer, other merchandisers, and the stars themselves are used to market and promote the film extensively. Some companies have their own technical and production staff, and television networks to promote the film: independent producers subcontract most of the services (Garcia and Masigan 2001).

9.3. Radio and Television

As with other media, radio broadcasting in the Philippines was introduced by the Americans when the first radio station KZKZ was set up in Manila in 1922 and brought to the provinces in 1929. Pre-war radio programs were mainly for entertainment. After the war "maturation" took place focusing on information and education to bring relevance to the medium, marking the early foundations of development broadcasting. During Martial Law, government control of the media was legalized through the Broadcast Media Council (BMC) and the Kapisanan ng mga Brodkaster sa Pilipinas (KBP), a committee of media practitioners. BMC assists the Government in widespread dissemination of broadcast information and development broadcasting while KBP self-regulates and "standardizes" the broadcasting industry and encourages development broadcasting. (Medija, n.d.).

Broadcast media operators are split into: (1) commercial (private corporations, schools, civic institutions or independent business entrepreneurs) which are profit-oriented; (2) non-commercial (civic or religious organizations with specific target audiences for their programs); and (3) government (operated by a government agency, organization or state university), providing public service, information, cultural and educational programs to motivate and reinforce development activities and for disseminating information on government activities (Medija, n.d.).

Television was introduced in 1953 with the opening of DZAQ-TV Channel 3 by Alto Broadcasting System in Manila and it broadcast over a 50-mile radius. The station was later bought by the Chronicle Broadcasting Network which operated radio stations in 1956, leading to the birth of the ABS-CBN Broadcasting Network, the first radio-TV network as well as the first cross-media entity owned by one family. Subsequently, a second station DZXL-TV 9 was added and in 1960, a third station DZBB-TV Channel 7 of the Republic Broadcasting System, owned by Bob Stewart who also started with radio in 1950, was set up. The first provincial television stations were established in 1968 by ABS-CBN, supplemented by 20 radio stations located nationwide. Economic constraints forced a dependence on imported programs from three US networks — ABC, CBS, and NBC. The commercial thrust of Philippine broadcasting makes it unique in East Asia where the electronic media are government-controlled and operated. While this free enterprise made local broadcasting globally competitive, the same environment made it difficult to produce and broadcast public service and "development" oriented programs (Tuazon 2002).

According to the National Telecommunications Commission (NTC), broadcast media is currently comprised of about 372 AM radio stations, 580 FM radio stations, 223 TV stations (VHF and UHF), 27 TV relay stations, two pay TV stations, 58 TV translator stations, three TV stations operating at 40 GHz, 1373 cable stations (CATV), three Local Multipoint Distribution Systems (LMDS) stations, and eight Multi-Channel, Multi-point Distribution Systems (MMDS) throughout the Philippines (US Commercial Service 2004).

In 1998 the KBP Broadcast Media Factbook recorded 137 television stations nationwide of which 63 were originating, 50 relay, and 24 ultra high frequency (UHF) stations. Most TV stations are part of the five major TV networks — ABS-CBN Broadcasting Corporation, Associated Broadcasting Corporation, GMA Network, Inc., Intercontinental Broadcasting Corporation (IBC), Radio Philippines Network (RPN), and People's Television Network, Inc. The largest networks are ABS-CBN and GMA Network. Cable TV is technically not considered part of the broadcast TV industry (Tuazon 2002).

Satellite and cable technologies have made universal access to broadcast media possible. ABS-CBN television covers approximately 90 percent, with a network linked to the Pan American Satellite, which provides its programs to all cable operators and direct-to-home markets within the satellite's range. Through a cable TV system, it reaches the San Francisco Bay Area. Similarly, GMA Radio Television Arts Network reaches the entire country and Southeast Asia, Hawaii, Guam, Saipan, Canada, and the United States either through Mabuhay satellite or cable TV. Southern Broadcasting Network (SBN Channel 21) and Molave Broadcasting Network (Channel 23) were the first commercial stations to broadcast on the UHF band in mid-1992. SBN 21 features "global-oriented" programs from World TV, a local VHF channel, while Channel 23 carries MTV programming as received via satellite from Hong Kong's Star TV. Others that followed were Byers Communication's Channel 68, the first Pay-TV channel; Rajah Broadcasting TV 29, the first home shopping channel; and Radio Mindanao Network Channel 31, the first all-movie channel. The most phenomenal growth, however, has been in cable TV which was introduced in 1969, spurred by the satellite programming of ABS-CBN and GMA in 1991. Provincial community antenna TV (CATV) systems have been set up to receive broadcast signals from stations originating in Manila. Metro Manila is one of the most advanced urban centers in Asia with respect to cable TV, with two major cable systems, Skycable and Home Cable, offering 60 channels or more (Tuazon 2002).

Television stations are dependent on advertising and therefore on ratings for survival. This commercial orientation is evident in the content, 50 percent of which consists of musical variety shows, soap operas, and situation comedies. Programming is oriented toward urban interests, and many provincial stations function merely as replay or relay stations (Tuazon 2002).

9.4. Software and Databases

Software development is defined as the process of understanding and detailing the requirements of a software user and translating these requirements or specifications into instructions for the computer to follow and initiate. Software development also involves testing and editing codes to make sure that specifications and their translations are correct, and in documenting and maintaining the program (CIDA 2004).

Software development has been undertaken in the Philippines since the 1970s, and the country has provided first-rate software development products and services to the US, Europe, Japan and Australia for more than two decades. The industry experienced a boom in the 1990s when foreign investors took advantage of local programming expertise, enabling the sector to generate US\$16 million in revenues in 1991. In early 2000 however a downturn was registered and local firms now need to find the right market

niche and upgrade both programming and project management capabilities (CIDA 2004). Size and scale¹¹ are lacking, the main problem being the inadequate number of companies. Nevertheless the country is one of the largest offshore destinations for Business Process Outsourcing (BPO) and the base for a US\$350 million offshore outsourcing software services sector (Computerworld 2003).

The local software development sector is estimated by BOI to consist of more than 300 companies employing an estimated 10,000 programmers, and offering a variety of services including analysis and design, prototyping, programming and testing, customization, reengineering and conversion, installation and maintenance, education and training of system software, middleware, and application software (CIDA 2004).

Software development covers three major product¹² categories, each geared to different markets: (i) applications software (addresses functional concerns across industries and includes word processors, database programs, web browsers, applications for drawing, painting and image editing, and communication programs), (ii) systems software (for operating systems or tools for software development), and (iii) middle ware (programs to mediate between applications and system software) (CIDA 2004). Philippine software development firms focus on systems and application development and maintenance of legacy applications (Computerworld 2003).

Software development companies rely on their internal R&D capabilities and resources for product development, and invest in R&D and in marketing the products they produce. Their primary sources of information for product development are their buyers' specifications and the Internet, as well as publications, designers, and trade fairs. They usually focus on a particular industry or vertical solution (e.g., banking and finance, insurance, manufacturing, etc.), or develop products that are cross-functional in nature, or technology-specific such as wireless/mobile applications (CIDA 2004).

Software services involve the contracting or outsourcing of work by companies (local and offshore) to a software development company, which develops, customizes or maintains a system based on the client's specific requirements. Another service is skilled manpower (programmers, systems analysts or project managers) assigned to a company, commonly known as body-shopping. Subcontracting software development is also the usual practice for large, complex projects, or offshore software companies, mostly based in the US (CIDA 2004).

¹¹ The Philippines is classified as an Emerging Software Exporting Nation since it already has significant software export industries (i.e., in the US\$25-US\$200 million range) and small geographic clusters of successful enterprises (SMEs) of various sizes that are subsidiaries of multinational enterprises, or home-grown, independent software firms. Many tier 3 nations are unlikely to move to the next level because of their small size (which restricts their ability to grow) and other unfavorable conditions (political instability, stage of economic development, etc.) but they may break away to create a new second tier by 2010 thanks to a base of educated human capital that is useful for growth. These software export industries face a difficult challenge since (a) they are selling commodity skills in programming with little national specialization and differentiation, (b) they currently compete in global markets predominantly based on their relatively low wages, and (c) they compete in the services market on project-based contracts which can easily shift to other nations (Carmel 2003).

¹² Software products are further classified according to function and use, as follows: (a) general applications (includes word processing and databases and others commonly used in business), (b) custom vertical applications (includes customized banking and accounting systems), (c) development platforms (includes Oracle, SAP and SQL for use in developing databases or related structures in business or other applications), (d) development tools (includes C++, Visual Basic and Java used to create executable and other programs), (e) operating systems (includes Windows and Mac OS which interface with computer hardware and provide the platform for other programs to run), (f) utilities (includes virus protection and memory management which aid in the more efficient and secure operation of other programs).

9.5. Advertising Services

The Philippines is a brand-conscious market, hence advertising plays a significant part in promoting the sale of consumer goods. Most of the leading advertising agencies in the country are affiliated to international agencies. Over the years, advertising has gone beyond traditional tri-media (print, TV and radio) outfits to electronic billboards, web advertising, mass transit or public transport advertising, special events and product launches, direct marketing and other tools to promote products. For instance, local organizers put on trade shows and exhibitions catering to a wide variety of sectors in shopping malls, trade halls and convention centers. Although some advertisements utilize Western image models or concepts, other market segments are "localized" versions of product advertising and brand building (US Commercial Service 2004).

9.6. Copyright Collecting Societies

There are only a few collecting societies in the Philippines, the Filipino Society of Composers, Artists and Publishers (FILSCAP), which has been in operation for four decades, the Philippine Reproduction Rights Organization (PRRO) and the Publishers Representatives Organization of the Philippines (PROP) which are yet to start operations.

Filipino Society of Composers, Artists and Publishers (FILSCAP)

FILSCAP is a non-stock, non-profit association of composers, lyricists and music publishers established in 1965 to administer public performances, mechanical reproduction, and synchronization rights granted by law to creators and owners of original musical works and provide a consistent income stream through creative licensing and the efficient collection and distribution of royalties.

Currently, it has over 800 local members. As a regular member of the Paris-based International Confederation of Societies of Authors and Composers (CISAC), which is the umbrella organization of all composer societies around the world, FILSCAP is recognized as the sole and official music copyright society in the Philippines.

FILSCAP represents the rights of local and foreign music copyright owners to whom application for a permission or license may be made by prospective performers, authorizes performances, mechanically reproduces and/or synchronizes copyrighted music in any manner or by any method. It also covers licensed radio and TV, hotels, restaurants, bars, music lounges, other entertainment outlets, retail establishments, concert producers, amusement parks, spas and salons, and internet sites. In 2006, FILSCAP collected 95 percent of its total billings of US\$1 million.

The process of licensing an establishment consists of FILSCAP sending out its monitoring staff to check if it is playing music on its premises, lists a sample of the songs being played and determines its floor area (for stores) or seating capacity (for restaurants). For radio and TV, FILSCAP records the transmission, transcribes the tape, identifies the music used, and checks these factors against its database. A report is generated to enable the licensing department to determine the license fee based on standard rates and to inform the establishment's owner of the need for a license in order to use the music legally.

Problems in Collective Management

a. Legal and Policy Issues

1. Judicial: It usually takes four to six years to litigate a case. Moreover, only three judges in the system specialize in IPR. Only one landmark decision on Intellectual Property law has been made.

2. Legislative: FILSCAP is proposing amendments to the Intellectual Property Law or RA 8293 as follows: (a) to provide criminal sanctions for violators in addition to their existing civil liability, in order to create a persuasive argument in the implementation of the law; (b) to set up a copyright tribunal under the auspices of the judiciary, to determine the amount of royalties due to the artists. It should have no limitations in jurisdiction, and cover all IPR areas; (c) to include the concept of Notice and Takedown, which is used in the context of websites; (d) to extend the rights period from 50 to 75 years, based on the US model; (e) to make available the right for public performances online.
3. Executive: Enforcement is a major problem. Guidelines or implementing rules and regulations for music that specify what is illegal and to provide for corresponding penalties are needed. An implementing agency or bureau similar to the Videogram Regulatory Board or the Movie and Television Review and Classification Board, is also needed for the music industry.

b. Perceptions and Difficulties with the Private Sector

When FILSCAP was first established, IPR was in its infancy in the Philippines. Only four establishments were licensed in the 1980s, and the numbers grew only after the enactment of Republic Act 8293. For most of the time the average person presumed that music was free; in fact some music users such as media and record labels felt that they were doing the composers a favor by popularizing their songs in public. It took more than three decades to convince local businessmen that music was not free, and even now some refuse to admit that music has any impact on their business.

In 1994 FILSCAP had its first breakthrough with a Memorandum of Agreement (MOA) with the Hotel and Restaurant Association of the Philippines (HRAP), many of whose members were hotel chains whose headquarters were in first world countries that already recognized IPR. In 1996 its first MOA with a media organization, Kapisanan ng mga Brodkasters ng Pilipinas, was signed although this did not prove effective because FILSCAP still has to deal with radio stations individually, and has licensed only 70 percent of FM radio stations.

FILSCAP then signed a licensing agreement with SM Prime Holdings in 2002. Following mediation by the IPO Director General in 2004, agreements were signed with GMA7 and ABS CBN in 2004. ABC5 followed in 2006. Ironically those hardest to convince are government TV stations.

A MOA was signed with the Bureau of Immigration and Deportation in 2005, stipulating that no foreign artists were to be issued with work permits unless their concert was given clearance by FILSCAP. Unfortunately the MOA has expired, and the BID is reluctant to renew this because of pressure from concert producers.

The longest stage in the licensing process is when FILSCAP asks to discuss requirements with individual establishments. Some businessmen completely ignore them, while others refer them to their legal representative. If the latter is well versed in IPR, the results are positive, but if he lacks experience with music copyrights, a long legal battle ensues. Fortunately FILSCAP has an excellent record and never loses on infringement cases.

Royalty payments are hampered by administrative requirements of businesses, which view the process as an additional burden. Incomplete returns are submitted as a consequence of this 'burdensome' requirement, e.g., ABS-CBN, which only provides first and fourth quarter payments. Nonetheless, there are also corporations such as GMA Network and SM Malls that are very cooperative, even creating their own compliance and monitoring divisions for music artists' rights.

c. Operational Problems

FILSCAP faces a huge logistical challenge in implementing the law because it still lacks a national network. Dissemination of the appropriate information on licensing requirements and procedures is difficult.

Protracted litigation also needs to be dealt with since litigation time against smaller businesses continues beyond the average lifespan of their operations. Filing of cases is limited to big business, e.g., 30 cases are pending at present. To be cost-efficient, FILSCAP pesters violators into paying rather than suing them. A side issue in litigation is the interpretation of the law by the judiciary, as exemplified in the case against Philippine Airlines (PAL), wherein they argued that since PAL was in receivership, the court order of a *status quo* against the collection of fees for music played in its airplanes had to be followed.

The digital environment poses another challenge because new technologies are being developed while FILSCAP is not yet able to expeditiously monitor possible violations with the current technology. Technical protection measures, which limit the reproduction of downloaded music, should be installed for a more efficient monitoring capacity. A related difficulty is determining the location and nationalities of the operators of legitimate or illegitimate websites where music is being shared, uploaded or used in violation of the law.

Licensing presents another logistical difficulty. The transport sector – ships, buses, airplanes – and government television networks and radio stations, are not all yet fully licensed. Organizers of small operations such as events, campaigns, and functions do not apply for licenses. International concerts where Philippine songs are played and internationally-based Filipino artists perform are difficult to monitor. Indeterminate music is hard to trace for licensing.

d. Organizational Problems

Governance is a problem if the Board does not actively participate in management. Recently however, the Board has taken an active role and upgraded and increased FILSCAP's collection capacity, e.g., an accounting unit was established in 2006 and an in-house accounting system is now in use in preference to external accountants who were not usually competent; software is being developed, and a comptroller will be hired.

Rapid management turnover, approximately every two years, results in an uncertain corporate direction that renders implementation of long-term plans difficult. The position of general manager was always contractual up to recent times, but his/her tenure is still at the discretion of the Board, which changes every two years.

Philippine Reproduction Rights Organization (PRRO)

PRRO is a collecting society of authors and publishers. The National Book Development Board (NBDB) which is the government agency mandated by Republic Act No. 8047 or Book Publishing Industry Development Act of 1995 to "formulate policies, guidelines and mechanisms to ensure that editors, compilers and especially authors are paid justly and promptly royalties due them for reproduction of their works in any form and number and for whatever purpose," is encouraging membership in PRRO by all local and foreign copyright owners in the book industry. Local publishers and booksellers are also being urged to engage in joint ventures with their foreign counterparts. Major publishers and book industry associations have agreed to financially support the PRRO (IPO 2006).

To combat the widespread practice of illegal photocopying of textbooks by students, a scheme was proposed by industry stakeholders. Under this scheme, students will no longer need to photocopy major portions of books with copyrighted content as professors will prepare course packs to be distributed to them. These course packs will contain quality photocopies of copyrighted material on particular subjects. To benefit the authors and publishers, colleges and universities that use their textbooks will start collecting additional but minimal fees (at reasonable copy rates per page) from students during enrolment, which will form part of the royalties for the copyrighted material in the course packs. This scheme will provide students with access to copyrighted material and discourage book piracy, support local authorship, and encourage book publishing in the regions (Bookwatch 2005).

With a license issued by PRRO, colleges and universities can legally produce copyrighted material for course packs at reasonable prices for students and collect royalties on behalf of copyright owners. The PRRO is thus being urged to start negotiating copyright licenses with colleges and universities in 2007. PRRO should also establish partnerships with the Commission on Higher Education (CHED) and the Intellectual Property Office, as well as bilateral relations with other collecting societies or reproductive rights organizations in order to provide a wide array of foreign reference materials.

In 2006, the NBDB hosted the PRRO General Assembly and election of a Board of Trustees, and created a project team to function as an interim PRRO Secretariat. The project team developed a five-year PRRO Business Plan and proposed amendments to the Articles of Incorporation and By-Laws; increased PRRO membership to 400 authors, and facilitated meetings with the Copyright Licensing and Administration Society of Singapore (CLASS), the Association of American Publishers (AAP), and the Publisher Representatives' Organization of the Philippines (PROP).

The NBDB also organized a Forum on Intellectual Property Rights and Copyright with participants from the book industry, to celebrate the 10th Philippine Book Development Month.

10. Exports and Imports of Copyrighted Goods

The Philippines was a net importer of core copyright-based products in 1999 and 2003. Among them, books and other printed matter, followed by recorded media, made up the highest proportion of both imports and exports. However, all core copyright-based products together made up less than 1 percent of national trade in both years, with imports dropping and exports expanding in the 5-year period.

Table 11. Exports and imports of core copyright-based products, 1999 and 2003 (US\$000)

Category	Commodity Type	1999 CIF Imports	1999 FOB Exports	2003 CIF Imports	2003 FOB Exports
Press and literature	Books and similar printed matter	29,302	2,174	50,420	1,722
	Newspapers and other periodicals	4,475	890	4,239	679
	Printed cards, transfers	1,157	4,701	837	1,986
	Other printed matter	33,111	1,505	44,924	15,161
Music, theater, opera	Music printed or in manuscript, whether or not bound/illustrated	29	0	0	0
Motion picture and video	Cinematograph film, exposed or developed, whether or not incorporating sound track	1,266	941	1,615	22
	Recorded media	29,387	9,365	17,244	15,823
Photography	Pictures, designs and photographs	307	0	202	0
Software and databases	Video games used with television receivers and parts	2,693	1,107	802	945
Visual and graphic arts	Works of art, collectors' pieces and antiques	303	546	123	604
TOTAL		102,030	21,229	120,406	36,942
% of Philippines		0.31	0.06	0.28	0.10

Source of Basic Data: NSO, Foreign Trade Statistics, 1999 and 2003.

Table 12. Exports and imports of interdependent copyright-based products, 1999 and 2003 (US\$000)

Category	Commodity Type	1999 CIF Imports	1999 FOB Exports	2003 CIF Imports	2003 FOB Exports
TV sets, radios, similar equipment	Television receivers (including video monitors and video projectors), whether or not incorporating radio receivers	35,424	61,558	59,921	45,748
	Radio broadcast receivers, whether or not incorporating sound recording or reproducing apparatus or a clock	40,325	104,753	30,483	98,931

	Sound recorders or reproducers; television image and sound recorders or reproducers	24,232	7,676	27,510	6,325
	Telecommunications equipment, N.E.S.; and parts, N.E.S.; and accessories of apparatus falling within division 76	954,424	573,760	1,202,901	702,728
	Household type, electrical and non-electrical equipment, N.E.S.	44,909	24,662	71,950	19,075
	Household tools and appliances	749	1,947	496	2,170
Computers and equipment	Printing and bookbinding machinery, and parts thereof	44,914	381	46,410	274
	Typewriters and word processing machines	4,419	0	1,793	0
	Automatic data processing machines and units; magnetic or optical readers, machines for transcribing data	181,059	3,158,230	196,284	1,413,899
Musical instruments	Musical instruments, parts and accessories	5,318	386	4,650	198
Photographic and cinematographic instruments	Photographic apparatus and equipment, N.E.S.	46,692	4,357	27,089	11,149
	Photographic and cinematographic supplies	81,221	242	71,188	135
	Optical goods, N.E.S.	15,334	24,107	8,417	69,160
Photocopiers	Copying apparatus	12,745	22,262	10,710	58,424
Blank recording material	Unrecorded media	41,687	540	7,121	83,976
Paper	Paper, paperboard, and articles of paper pulp, paper or paperboard	359,898	72,348	389,588	71,260
	Office and stationery supplies, N.E.S.	31,360	768	28,514	724
TOTAL		1,924,710	4,057,977	2,185,025	2,584,176
% of Philippines		5.91	11.58	5.13	7.13

Source of Basic Data: NSO, Foreign Trade Statistics, 1999 and 2003.

Interdependent copyright-based products comprised a much larger proportion of total trade compared with core or even partial copyright-based goods, although both import and export figures dropped from 1999 to 2003. In absolute terms, however imports grew from US\$1924 million to US\$2185 million, mainly consisting of telecommunications equipment and parts. Export values decreased from US\$4057 million to US\$2584 million in the same period, this time made up mostly of automatic data processing machines and parts. Paper and paperboard products were the next most important group of imports while radio and television broadcast receivers were the next largest exports.

Table 13. Exports and imports of partial copyright-based products, 1999 and 2003 (US\$000)

Category	Commodity Type	1999 CIF Imports	1999 FOB Exports	2003 CIF Imports	2003 FOB Exports
Apparel, textiles, footwear	Fabrics, made-up articles of textile materials	552,428	171,698	612,342	194,377
	Trunks, suitcases, briefcases, camera cases and similar containers	14,177	153,876	10,797	61,682
	Articles of apparel and clothing accessories	55,490	1,190,940	58,944	1,283,299
	Footwear	61,199	70,920	53,360	36,234
Jewelry and coins	Jewelry, goldsmiths' and silversmiths' wares, and other articles of precious or semi-precious material	604	35,439	943	52,782
	Coins (other than gold coins), not being legal tender	135	0	450	0
Other crafts	Molded/carved artworks	108	16,584	124	16,861
	Artificial flowers, plants	2,709	4,585	1,369	3,936
	Art and basketwork from plaited material	140	84,509	278	69,427
Furniture	Furniture and parts thereof	62,890	354,221	47,882	278,101
Household goods, china, glass	Wood manufactures, N.E.S.	9,035	128,591	9,473	131,161
	Glass	33,827	14,707	36,145	36,528
	Glassware	48,473	7,539	55,862	6,117
	Household equipment of base metal, N.E.S.	20,411	29,038	21,151	24,519
Wall coverings, carpets	Floor coverings, etc.	5,262	4,539	4,162	4,703
Toys and games	Toys, parts and accessories	46,123	23,815	23,182	14,659
	Games, equipment and parts	11,123	70	24,197	103
Architecture, engineering, surveying	Plans and drawings for architectural, engineering, industrial, or similar purposes	37,594	0	10	0
TOTAL		961,728	2,291,071	960,671	2,214,489
% of Philippines		2.46	6.54	2.26	6.11

Source of Basic Data: NSO, Foreign Trade Statistics, 1999 and 2003.

Partial copyright-based products were exported and imported widely, with total values relatively constant between the two years under review. Exports made up a larger proportion of the national total than imports, and consisted mainly of articles of apparel and clothing accessories. Inputs into these fabrics and made-up textiles in turn comprised the bulk of imports. Furniture and parts were another major export, although in much lower magnitudes compared with garments.

Together, all copyright-based imports made up 9.18 percent of total Philippine imports in 1999, decreasing slightly to 7.67 percent in 2003. The proportion of exports also dropped from 18.18 percent in 1999 to 13.34 percent in 2003.

11. Consumer Demand for Copyright-Based Products

An idea of consumer demand for particular copyright products may be obtained from the 2003 FIES for certain expenditure items reproduced below. These are based on household consumers. In the earlier FIES rounds, expenditures on telephone bills and phone cards were minimal and not separately tabulated. As Table 14 shows, nominal expenditures on key copyright-related items geometrically increased as income deciles increased (where deciles start with the poorest). Average expenditures on phone cards exceeded those on books by a wide margin, just as telephone bills were high compared with the other items. Expenditures on tickets to shows and musical instruments, although still low on average, were significant for households in the tenth decile relative to total expenditures. The expenditure on digital video entertainment has remained at the same low level for the last two decades.

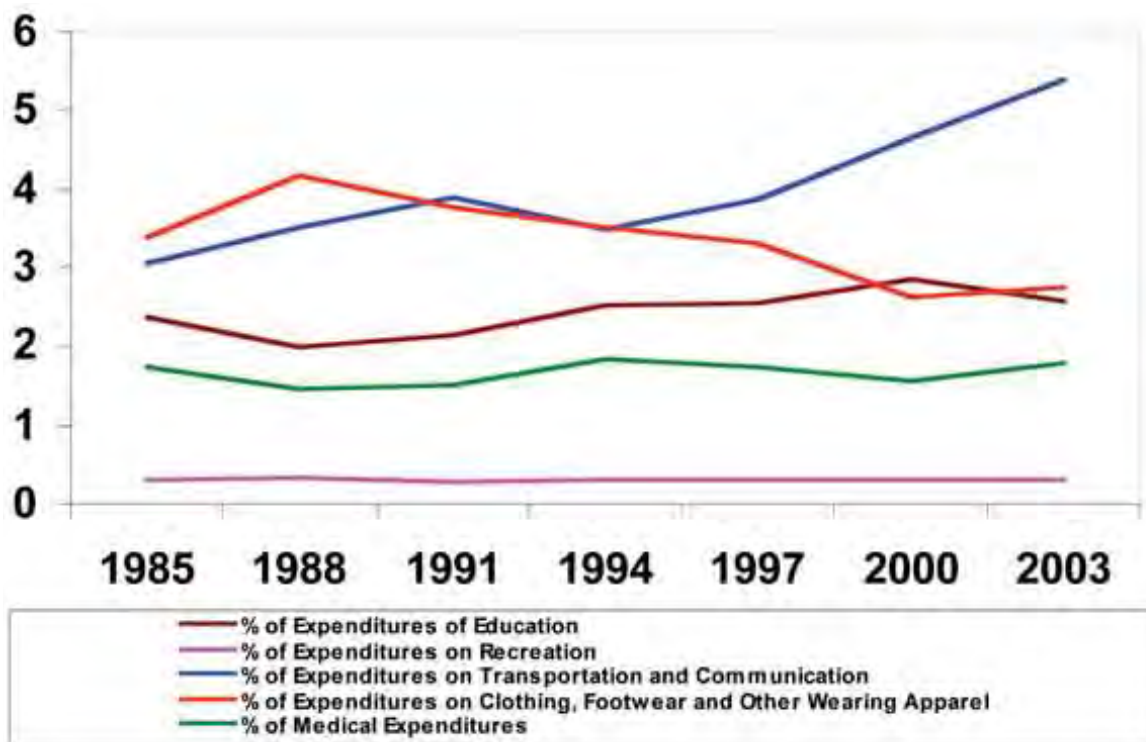
Table 14. Average household expenditures on some copyright-related items, 2003

Income Decile	Nominal Expenditures (Pesos)						
	Total Expenditure	Telephone Bills	Phone Cards	Books	Musical Instruments	Tickets to Shows	Audio-Visual Equipment
First	28,899	5	11	3	0	2	16
Second	43,932	14	29	7	1	5	68
Third	55,502	24	98	13	1	7	118
Fourth	66,653	42	218	22	1	9	202
Fifth	80,863	86	439	47	1	13	259
Sixth	98,932	160	805	69	2	20	379
Seventh	120,746	353	1,494	117	3	26	498
Eighth	152,128	677	2,515	221	4	42	645
Ninth	203,985	1,683	4,090	436	13	68	900
Tenth	385,241	6,224	8,083	1,196	105	166	1,685
TOTAL	123,691	927	1778	213	13	36	477

Source : National Statistics Office, 2003 Family Income and Expenditures Survey.

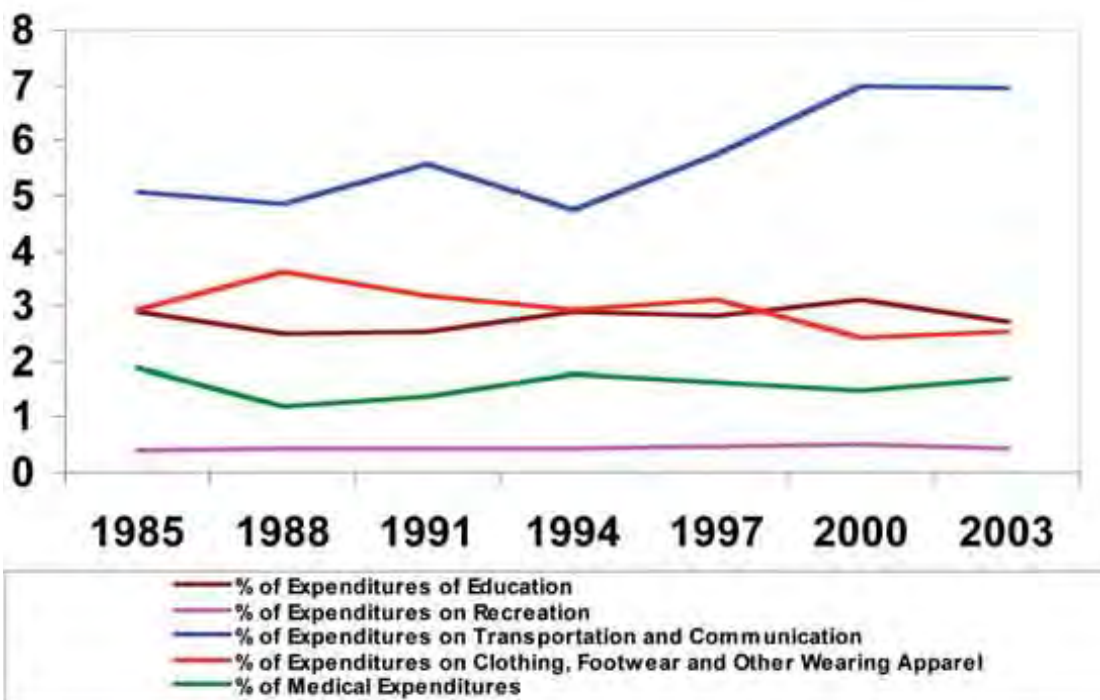
The nominal total expenditure of households increased from 1985 to 2003. This is also true for other expenditure groups like education, recreation, transportation and communication, clothing, footwear and wearing apparel and medical expenditures. Among the major expenditure items related to copyright, those pertaining to transportation and communication showed a continuously increasing trend (see Figure 4). From barely 3 percent of total expenditures in 1985, expenditures on transportation and communication grew to 5.38 percent of total expenditures in 2003. This is explained by the expansion of the customer base for cellular telephones that have benefited significantly from developments in digital technology over the past decade, as well as the diversification of the public transportation system that makes households in urban centers like the National Capital Region (NCR) more mobile (see Figure 5). Telecommunications has grown as a result of strategic marketing efforts among the key players and is expected to grow further in the coming years. Expenditure on education stayed around 2.5 percent of total expenditure from 1985 to 2003, while expenditure on recreation barely changed at 0.31 percent. Expenditure on wearing apparel and footwear has gradually declined to 2.75 percent of the total expenditures in 2003. Medical expenditure barely changed at 1.78 percent of the total.

Figure 4. Share of total expenditures of households by type (Philippines)



Source: NSO, 2003 Family Income and Expenditures Survey.

Figure 5. Share of total expenditures of households by type (National Capital Region)



Source: National Statistics Office: 2003 Family Income and Expenditures Survey.

12. Recommendations to Strengthen Copyright-Based Industries

The results of this study show the significant contribution of copyright-based industries to the economy of the Philippines, notably its potential for employment generation.

For this reason, government intervention is highly recommended. The policy to protect copyright and encourage creativity already exists. It is enshrined in the Philippine Constitution and in the principal law on the matter, the Intellectual Property Code of the Philippines (Republic Act 8293) which took effect on January 1, 1998. While additional legislative initiatives may help, they can take years to formulate and much longer for results to be achieved. On the other hand, steps can be taken immediately by agencies of the government to provide relevant information to help Philippine copyright-based industries.

The National Economic and Development Authority (NEDA), created by Article VII Section 9 of the Philippine Constitution, is primarily responsible for the formulation of continuing, coordinated and fully integrated social and economic policies, plans and programs. Its powers and functions are exercised by the NEDA Board. Chaired by the President of the Philippines with the Director General of NEDA as Vice-Chairman, the NEDA Board has as its members the Executive Secretary and Secretaries (heads) of the following Departments: Finance, Trade and Industry, Agriculture, Environment and Natural Resources, Public Works and Highways, Budget and Management, Labor and Employment, and Local Government. All of these Departments directly relate to all the copyright-based industries covered by this study.

The National Statistical Coordination Board (NSCB) is chaired by the Director-General of NEDA. It is the highest policy-making and coordinating body on statistical matters. Among its powers and functions, the NSCB is mandated to recommend executive and legislative measures to enhance the development and efficiency of the system, to allocate statistical responsibilities among government agencies by designating the statistics to be collected by them including their periodicity and content, to develop, prescribe and maintain an appropriate framework for improvement of statistical coordination and prescribe uniform standards and classification systems in government statistics. It may create inter-agency committees to assist it in the exercise of its functions.

The NSCB does not engage directly in any basic data collection activity. The National Statistics Office (NSO) is the major statistical agency responsible for providing general purpose statistics and undertaking censuses and surveys as may be designated by the NSCB.

Quality information must be systematically and regularly gathered and made available by NEDA and the NSCB through the NSO and other government agencies. While this study is not designed to determine the impact of copyright enforcement on the economic contribution of copyright, it underscores the need for quality information that would ultimately serve planning and monitoring purposes.

1. One recommendation pertains to the basic aspect of establishing the size, composition, and changes in CBI, i.e., detailed data collection and classification. Censuses with complete enumeration at the 5-digit PSIC level are the most useful. Next come surveys that use a consistent sampling method and identify firms at the 5-digit level. If there is only one respondent at this level, rather than suppressing the data, the firm should be given a code to protect its identity but the information should be made available upon request.
2. A direct question on the amount of copyright royalties and a separate tally of the results would also be useful. While the question was asked by the 2000 CPBI, the answers are subsumed under "Costs of

non-industrial services done by others.” The 2003 ASPBI now asks a specific, separate question but it is about the total value of intangible assets that encompasses copyrights, trademarks, patents, franchises, etc., with no breakdown available. Moreover, regarding assets there is a need to annualize their costs, hence a question on annual payments for the use of copyrights separate from other forms of IP would be more useful. R&D expenditures would also be more relevant if it can be established which amount relates directly and only to current production.

3. With the rapid and continuous emergence of numerous digital products and services brought about by developments in information technology, it is also crucial to identify and classify them properly. A technical working group under the National Statistical Coordination Board is already undertaking this. Inasmuch as the new digital products and services originate from the United States, it is suggested that the categories from the North American Industry Classification System (NAICS) be taken into consideration. Some examples are shown in italics in the list below taken from the NAICS:

Box 16. Categories from the North American industry classification system (NAICS)

<p>51 Information</p> <p>511 Publishing Industries (except Internet)</p> <p>5111 Newspaper, Periodical, Book, and Directory Publishers</p> <p>51111 Newspaper Publishers</p> <p>51112 Periodical Publishers</p> <p>51113 Book Publishers</p> <p>51114 Directory and Mailing List Publishers</p> <p>51119 Other Publishers</p> <p>511191 Greeting Card Publishers</p> <p>511199 All Other Publishers</p> <p>5112 Software Publishers</p> <p>512 Motion Picture and Sound Recording Industries</p> <p>5121 Motion Picture and Video Industries</p> <p>51211 Motion Picture and Video Production</p> <p>51212 Motion Picture and Video Distribution</p> <p>51213 Motion Picture and Video Exhibition</p> <p>512131 Motion Picture Theaters (except Drive-Ins)</p> <p>512132 Drive-In Motion Picture Theaters</p> <p>51219 <i>Postproduction Services and Other Motion Picture and Video Industries</i></p> <p>512191 <i>Teleproduction and Other Postproduction Services</i></p> <p>512199 Other Motion Picture and Video Industries</p> <p>5122 Sound Recording Industries</p> <p>51221 Record Production</p> <p>51222 Integrated Record Production/Distribution</p> <p>51223 Music Publishers</p> <p>51224 Sound Recording Studios</p> <p>51229 Other Sound Recording Industries</p> <p>515 Broadcasting (except Internet)</p> <p>5151 Radio and Television Broadcasting</p> <p>51511 Radio Broadcasting</p> <p>515111 Radio Networks</p> <p>515112 Radio Stations</p> <p>51512 Television Broadcasting</p> <p>5152 Cable and Other Subscription Programming</p> <p>516 Internet Publishing and Broadcasting</p> <p>517 Telecommunications</p> <p>5171 <i>Wired Telecommunications Carriers</i></p> <p>5172 <i>Wireless Telecommunications Carriers (except Satellite)</i></p> <p>517211 <i>Paging</i></p> <p>517212 <i>Cellular and Other Wireless Telecommunications</i></p> <p>5173 <i>Telecommunications Resellers</i></p> <p>5174 <i>Satellite Telecommunications</i></p>
--

5175 *Cable and Other Program Distribution*
5179 *Other Telecommunications*
518 *Internet Service Providers, Web Search Portals, and Data Processing Services*
5181 *Internet Service Providers and Web Search Portals*
518111 *Internet Service Providers*
518112 *Web Search Portals*
5182 *Data Processing, Hosting, and Related Services*
519 *Other Information Services*
51911 *News Syndicates*
51912 *Libraries and Archives*
51919 *All Other Information Services*

54 Professional, Scientific, and Technical Services

5411 *Legal Services*
54111 *Offices of Lawyers*
54112 *Offices of Notaries*
54119 *Other Legal Services*
541191 *Title Abstract and Settlement Offices*
541199 *All Other Legal Services*
5412 *Accounting, Tax Preparation, Bookkeeping, and Payroll Services*
541211 *Offices of Certified Public Accountants*
541213 *Tax Preparation Services*
541214 *Payroll Services*
541219 *Other Accounting Services*
5413 *Architectural, Engineering, and Related Services*
54131 *Architectural Services*
54132 *Landscape Architectural Services*
54133 *Engineering Services*
54134 *Drafting Services*
54135 *Building Inspection Services*
54136 *Geophysical Surveying and Mapping Services*
54137 *Surveying and Mapping (except Geophysical) Services*
54138 *Testing Laboratories*
5414 *Specialized Design Services*
54141 *Interior Design Services*
54142 *Industrial Design Services*
54143 *Graphic Design Services*
54149 *Other Specialized Design Services*
5415 *Computer Systems Design and Related Services*
541511 *Custom Computer Programming Services*
541512 *Computer Systems Design Services*
541513 *Computer Facilities Management Services*
541519 *Other Computer Related Services*
5417 *Scientific Research and Development Services*
54171 *Research and Development in the Physical, Engineering, and Life Sciences*
54172 *Research and Development in the Social Sciences and Humanities*
5418 *Advertising and Related Services*
54181 *Advertising Agencies*
54182 *Public Relations Agencies*
54183 *Media Buying Agencies*
54184 *Media Representatives*
54185 *Display Advertising*
54186 *Direct Mail Advertising*
54187 *Advertising Material Distribution Services*
54189 *Other Services Related to Advertising*
5419 *Other Professional, Scientific, and Technical Services*
54191 *Marketing Research and Public Opinion Polling*
54192 *Photographic Services*
541921 *Photography Studios, Portrait*
541922 *Commercial Photography*
54193 *Translation and Interpretation Services*
54199 *All Other Professional, Scientific, and Technical Services*

56 Administrative and Support and Waste Management and Remediation Services

561 Administrative and Support Services

5611 Office Administrative Services

5612 Facilities Support Services

5613 Employment Services

56131 Employment Placement Agencies

56132 Temporary Help Services

56133 Professional Employer Organizations

5614 Business Support Services

56141 Document Preparation Services

56142 Telephone Call Centers

561421 Telephone Answering Services

561422 Telemarketing Bureaus

56143 Business Service Centers

561431 Private Mail Centers

561439 Other Business Service Centers (including Copy Shops)

4. Another source of data that should be utilized more effectively is the Labor Force Survey that targets individuals rather than establishments as respondents. At present the information is reported at the most aggregated level of the Philippine Standard Occupational Classification scheme, which limits its usefulness for this study. However since self-employed individuals also produce copyright products and services, their number and contribution must be estimated.
5. The United Nations Statistics Division (UNSD) International Standard Industrial Classification (ISIC) Revision 4, which all countries are expected to adopt, will be released in 2007. This is the best opportunity for the Philippine Statistical System to give due importance to the contribution of the CBI, that is, by elevating these sectors to a higher-level classification. This will ensure proper collection of information on the copyright and other intellectual property-based industries whose contribution to the Philippine economy is expected to grow in the coming years.
6. The Secretariat of the Association of Southeast Asian Nations (ASEAN) is fast-tracking the ASEAN Standardization of the Classification System. This provides an excellent opportunity to include the foregoing proposals in order to raise awareness of the importance and economic contribution of copyright-based industries, not only in the country but throughout the ASEAN region.
7. The Securities and Exchange Commission (SEC) requires corporations and partnerships to submit annual financial statements. This requirement should include information on payments made/received on account of royalties, including details of the name and location of the payee/payer and the amount.
8. The national Government should require the regular updating of copyright industry statistics identified here not only by the NSO but by all other agencies such as the SEC, with the obligation to collate, organize and submit the data to the NSCB. Industry associations or individuals should be encouraged to provide information when they register either as businesses or individuals.
9. The present report provides baseline information on the economic contribution of CBI in terms of value added, employment and foreign trade. A detailed survey of CBI must be undertaken to establish or validate copyright factors. Further surveys/studies on the impact of CBI should also be conducted regularly. Initially, the present survey could be repeated using the WIPO Guide or its updated version using new/older statistics for comparison over time. Further studies should be built upon the WIPO Guide or its updated version to ensure comparability of data/results. At the same time additional parameters/measures could be incorporated to accommodate other information needed by policy-makers such as, for example, the social impact of CBI.

10. It is necessary to underscore the need for a policy to provide funds or funding sources such as fees and charges for the specific purpose of carrying out the recommendations made here.
11. To monitor enforcement and judicial activities effectively, data from enforcement agencies and courts, including historical information, must be systematized.

Programs for public awareness on copyright and its importance must be systematically implemented.

Private sector participation in the education of the public must be intensified. For example, collecting societies may pursue an information program to address the failure to pay performance and recording royalties. Alliances must also be built between chambers of commerce and industry and copyright collecting societies.

While the Intellectual Property Code meets international standards for protection, aside from optical disc legislation and implementing rules for border control, current enforcement strategies must be sustained and actions intensified. In the medium and long term, laws and policies, including the implementation of laws on copyright, must also be periodically reviewed and improved taking into account the impact of CBI on the economy as shown by studies using government statistics, and preferably including the informal economy.

Other broad recommendations are as follows:

1. The use of administrative remedies must be promoted, to reduce the burden of enforcement and adjudication agencies.
2. Accountability and transparency must be institutionalized. As a potentially effective tool for this to be realized, the database must be fully utilized by enforcement agencies and the courts.
3. Creative policy responses must be conceived to the “structural”¹³ or built-in demand for pirated goods, brought about by low incomes, high price differentials between genuine and fake products, and consumer attitudes and technology. Price differentials must be addressed through an innovative pricing policy such as offering products at affordable levels. In a parallel move, the costs of buying and selling pirated products must be increased. Fines must also be increased in both civil and criminal cases, and imprisonment should be mandatory in criminal cases.
4. Taxes applied to certain copyright sectors are affecting them adversely. This is the complaint of the motion picture industry, on which are imposed an amusement tax, a culture tax, a flood tax, and a tax on raw materials. This adds to their high production costs and should be reviewed for possible rationalization.
5. Collective management must be supported and the strategy replicated where possible.

As the results of this study show, CBI have a sizeable contribution to make to the national economy. It is incumbent upon policy makers and regulators to take the steps needed for the country to reap the full benefits of copyright.

¹³ USAID-AGILE, IPR Diagnostic Report, September 2001.

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Annex A

Corporations Classified under the Core Copyright Industry, 2002

CORPORATION BY CORE COPYRIGHT SUBSECTOR	2002 Gross Revenues (in PhPM)
PRINTING	
Clarito Enriquez and Sons Corporation	139
Alliance Media Printing, Incorporated	293
Banner Plasticard, Incorporated	568
Business World Publishing Corporation	198
Consolidated Paper Products Incorporated	180
Diwa Scholastic Press Incorporated	67
FEP Printing Corporation	1,189
Foremost Printer's Equipment and Supply, Incorporated	38
Monica Publishing Corporation	190
Mount Banahaw Wood Industries, Incorporated	53
PDS Philippines, Incorporated	73
Philippine Daily Inquirer Incorporated	2,378
Philstar Daily, Incorporated	1,455
Pioneer Offset Printing Incorporated	42
PLim Investments, Incorporated	35
Printwell, Incorporated	851
Rowell Lithography and Metal Closure, Incorporated	225
SD Publications, Incorporated	331
Directories Philippines Corporation	1,154
Pilipino Star Printing Company, Incorporated	370
PUBLISHING	
Bookhaven, Incorporated	1,214
Papercon (Philippines) Incorporated	485
Sysco Paper Corporation	148,661
Vibal Publishing House, Incorporated	508
Vision Tapes and Cable Corporation	70
Manila Bulletin Publishing Corporation	2,588
Sterling Paper Products Enterprises, Incorporated	240
Summit Publishing Company, Incorporated	262
DRAMATIC ARTS, MUSIC, OTHER ARTS ACTIVITIES	
Sony Music Entertainment (Philippines), Incorporated	201
Star Recording, Incorporated	170
Wolfpac Communications, Incorporated	75

MOTION PICTURE AND VIDEO PRODUCTION	
Production Village Corporation	216
Star Cinema Productions, Incorporated	220
Unitel Productions, Incorporated	189,401
Viva Productions, Incorporated	334
Viva Television Corporation	665
Straight Lines International, Incorporated	80
United Productions, Incorporated	249
Viva Entertainment, Incorporate	583
Creative Programs, Incorporated	341
Studio 23, Incorporated	421
Telecom's & Computer Technologies, Incorporated	56
RADIO AND TELEVISION	
GMA Marketing and Productions, Incorporated	185
Manila Exposition Complex, Incorporated	101
Television and Production Exponents, Incorporated	398
ABC Development Corporation and Subsidiary	639
Manila Broadcasting Company	639
Nachi Pilipinas Industries, Incorporated	127
Radio Mindanao Network, Incorporated	321
PHOTOGRAPH AND MOTION PICTURE PROCESSING	
Columbia Global Photo Sales Corporation	381
Kameraworld, Incorporated	249
Roadrunner Network, Incorporated	189
COMPUTER AND RELATED ACTIVITIES	
DATA PROCESSING	
Dataone Asia Philippines, Incorporated	557
Delfin Hermanos, Incorporated	126
Diversified Financial Network Incorporated	37
EDS Electronic Data Systems (Philippines), Incorporated	188
Equitable Computer Services, Incorporated	226
General Telephone System, Incorporated	61
Infocom Technologies, Incorporated	379
Integrated Computer Systems, Incorporated	499
Inter Par Philippines Resources Corporation	53
Microsoft Business Solutions (Philippines) Incorporated	207
Primeworld Digital Systems, Incorporated	441
Quorum Lanier Philippines Incorporated	215
SM-Equicom Computer Services, Incorporated	466
Southbend Management Services, Incorporated	49
SPI Technologies, Incorporated	353
The Thomson (Philippines) Corporation	317
Topbest Printing Corporation	67

SOFTWARE CONSULTANCY AND DEVELOPMENT	
AMA Computer College, Incorporated - Binan	100
Content Sciences, Incorporated	768
Headstrong Philippines, Incorporated	438
Formsmaster Computer Paper, Incorporated	43
IBM Solutions Delivery, Incorporated	224
Misys International Banking Systems, Incorporated	584
Uniserv Systems International, Incorporated	325
Weserv Systems International, Incorporated	213
RESEARCH AND DEVELOPMENT IN IT	
Promo Perfect, Incorporated	65
ADVERTISING	
Ayala Systems Technology, Incorporated	197
Basic Advertising, Incorporated	246
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Consolidated Broadcasting System, Incorporated	177
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ADTX Systems Incorporated	58
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Kakudai (Philippines), Incorporated	38
New Panay Agri-ventures Development, Incorporated	112
Parsons Brinckerhoff Philippines, Incorporated	236
Aurotech Systems (Philippines), Incorporated	213
C and E Corporation	192
Camp Marketing and Development, Incorporated	47
Daewoo Engineering and Construction Co, Ltd.	200
DDT Konstruct Incorporated	90
Fujitsu Telecoms Systems Philippines, Incorporated	102
Glasprint Enterprises, Incorporated	62
Informatics Holdings Philippines, Incorporated	66
Kansai Paint Philippines, Incorporated	122
Li and Fung (Philippines) Incorporated	107
M+W Zander (Philippines) Incorporated	179
MalIncorporatedoat, Incorporated	120
Nesic Philippines, Incorporated	355
One Four One, Incorporated	45
Oriental Toolmaster Corporation	76

Pacific Consultants International Asia, Incorporated	412
Philippine EDS Techno-service, Incorporated	186
Raytheon-Obasco Overseas Limited	1,683
Taikisha Philippines, Incorporated	410
Teradyne Philippines Limited	521
Vsl Philippines Incorporated	240

Source: *Top 7000 Corporations, 2003.*

Annex B

List of Commodities by Copyright Industry Category			
TYPE	COPYRIGHT-BASED INDUSTRY	Philippine Standard Commodity Classification Code (PSCC)*	
CORE	Press and Literature	892	Printed Matter
		8921	Books and similar printed matter
		8921200	Children's picture, drawing/coloring books
		8921300	Maps and charts in book form
		8921401	Globes
		8921409	Other maps and hydrographic, similar charts of all kinds, not in book form
		8921600	Dictionaries and encyclopaedias, and serial installments, not in single sheets
		8921901	College and high school textbooks including technical and scientific books
		8921902	Textbooks, workbooks and supplementary readers for the elementary grades
		8921903	Prayer books, bibles, and other religious books
		8921904	Catalogues in book form
		8921905	Booklets, brochures, pamphlets and leaflets, not in single sheets
		8921906	Educational, technical, scientific, historical and cultural books other than those of sub-item 892
		8921909	Other books, brochures and similar printed matter, N.E.S., not in single sheets
		8922	Newspapers and other periodicals
		8922100	Newspapers, journals and periodicals, appearing at least four times a week
		8922901	Newspapers, new issues, other than appearing at least four times a week
8922902	Comic magazines, new issues, other than appearing at least four times a week		

			8922903	Magazines (excluding comic), reviews and other periodicals, new issues other than four times a week
		8924		Printed cards, transfers
			8924101	Transfers (decalcomanias), vitrifiable
			8924102	Industrial transfers (decalcomanias), other than vitrifiable
			8924109	Transfers (decalcomanias), N.E.S.
			8924201	Picture postcards
			8924202	Christmas and other greeting cards
			8924209	Other printed/illustrated postcards; printed cards with personal greetings, etc.
		8928		Other printed matter
			8928101	Paper or paperboard labels, of all kinds, printed, other than those of sub-item 8928103
			8928102	Paper or paperboard labels of all kinds, not printed, other than those of sub-item 8928104
			8928103	Labels that form part of packaging for jewelry or for small objects of personal adornment or for art
			8928301	Stock, share and bond certificates and similar documents of title, cheque forms; stamp-impressed paper
			8928302	Unused postage, revenue and similar stamps of current or new issue in the country for which they are destined
			8928303	Banknotes
			8928304	Stamped envelopes, letter cards, postcards and the like
			8928400	Calendars of any kind, printed (including calendar blocks)
			8928600	Trade advertising material, commercial catalogues and the like
			8928901	Anatomical, botanical, etcetera, instructional charts and diagrams
			8928902	Printed cards for jewelry or for small objects of personal adornment or for articles of personal use
			8928909	Other printed matter, N.E.S.
CORE	Music, Theatre, Operas		8928500	Music printed or in manuscript, whether or not bound/illustrated
			8986100	Magnetic tapes, recorded, of a width not exceeding 4mm
			8986300	Magnetic tapes, for reproducing phenomena other...
			8986700	Magnetic tapes, recorded, of a width exceeding 6.5mm
			8986709	Other recorded magnetic tape with width exceeding 6.5mm

			8987102	Gramophone (phonograph) records, other than for language study
			8987903	Discs for laser reading systems, recorded, for reproducing sound only
CORE	Motion Picture and Video	883		Cinematograph film, exposed or developed, whether or not incorporating sound track
			8831003	Cinematograph film, exposed and developed, whether or not with sound track, width 35mm or more
			8831009	Other cinematograph film, exposed and developed, whether or not with sound track, width 35mm or more
			8833009	Cinematograph film, exposed and developed, whether or not incorporating or consisting of sound track, N.E.S.
		898		Recorded media for reproducing phenomena
			8987908	Recorded media for reproducing representation of instruction
			8987909	Other sound or similar recorded media (including video tapes), N.E.S.
CORE	Photography		8928700	Pictures, designs and photographs
CORE	Software and Databases	8943		Video games used with television receiver and parts
			8943101	Video games used with television receiver
			8943108	Parts, N.E.S. of sub-item 8943101
			8987901	Recorded computer magnetic discs and diskettes
			8987902	Discs for laser reading systems, recorded, for reproducing...
			8987904	Recorded computer media for laser reading systems (e.g., CD-ROM)
			8987905	Discs for laser reading systems, recorded, other than those classified in sub-items 8987901 to 898
			8987906	Cards incorporating a magnetic strip, recorded
			8987907	Other recorded media for reproducing phenomena other than sound or image
CORE	Visual and Graphic Arts	896		Works of art, collectors' pieces and antiques
			8961100	Paintings, drawings and pastels, by hand
			8961201	Collages and similar decorative plaques, of cork/wood
			8961202	Collages and similar decorative plaques, of base metal
			8961209	Collages and similar decorative plaques, of other materials
			8962000	Original engravings, prints and lithographs
			8963000	Original sculptures and statuary, any material
			8964000	Postage/revenue stamps, stamp-postmarks, first day covers, postal stationery and others

			8965001	Specimens for scientific purposes
			8965002	Collection and collectors' pieces of numismatic interest
			8965009	Collections and collectors' pieces of zoological, botanical, etc. interest, N.E.S.
			8966000	Antiques of age exceeding one hundred years
INTERDEP	TVs, radios, other audio-video, electronic game equipment	761		Television receivers (including video monitors and video projectors), whether or not incorporating radio
		762		Radio broadcast receivers, whether or not incorporating sound recording or reproducing apparatus or a clock
		763		Sound recorders or reproducers; television image and sound recorders or reproducers
		764		Telecommunications equipment, N.E.S.; and parts, N.E.S.; and accessories of apparatus falling within division 76
		775		Household type, electrical and non-electrical equipment, N.E.S.
INTERDEP	Computers and Equipment	726		Printing and bookbinding machinery, and parts thereof
		7511		Typewriters and word processing machines
		7511	7511301	Automatic typewriters
			7511302	Word-processing machines
			7511501	Electric typewriters, weighing not more than 12 kilograms (excluding case), new
			7511502	Used or rebuilt electric typewriters weighing not more than 12 kilograms (excluding case)
			7511601	Used or rebuilt electric typewriters, N.E.S.
			7511602	Other electric typewriters, N.E.S.
			7511801	Non-electric typewriters weighing not more than 12 kilograms (excluding case), new
			7511802	Used or rebuilt non-electric typewriters weighing not more than 12 kilograms (excluding case)
			7511901	Used or rebuilt non-electric typewriters, N.E.S.
			7511909	Other non-electric typewriters, N.E.S.
		752		Automatic data processing machines and units; magnetic or optical readers, machines for transcribing data
INTERDEP	Musical Instruments	8981/2/9		Musical instruments, parts and accessories
		898		Musical instruments and parts and accessories thereof; records tapes, and other sound or similar recording
			8981301	Upright pianos
			8981302	Grand pianos
			8981303	Pianos other than upright and grand
			8981501	Violins

			8981503	Guitars
			8981504	Ukuleles
			8981506	Harps not including Aeolian harps
			8981509	Other string musical instruments, N.E.S.
			8982100	Keyboard pipe organs; harmoniums and similar keyboard instrument
			8982202	Mouth organs (harmonicas)
			8982301	Brass wind instruments
			8982309	Other wind musical instruments, N.E.S.
			8982400	Percussion instruments (e.g. drums, xylophones, cymbals, castanets, etc.)
			8982500	Keyboard instruments, sound is produced/amplified
			8982600	Musical instruments, N.E.S., sound is produced/amplified
		89829	8982901	Musical boxes
			8982902	Fairground organs, mechanical street organs, musical saws and other musical instruments, N.E.S.
			8982903	Decoy calls, whistle call horns and other mouth-blown sound instruments
			8989001	Strung back for upright pianos
			8989009	Parts and accessories for pianos, N.E.S.
			8989011	Parts and accessories for musical instruments of items 89815 (excluding those played with a bow)
			8989012	Parts and accessories for musical instruments of items 89821
			8989013	Parts and accessories for musical instruments of items 89825 and 89826
			8989014	Metronomes, tuning forks and pitch pipes of all kinds
			8989015	Mechanisms for musical boxes
			8989016	Musical instrument strings
			8989017	Parts and accessories for musical instruments played with a bow, other than string musical instruments
			8989019	Other musical parts and accessories, N.E.S.
INTERDEP	Photographic and Cinematographic instruments	881		Photographic apparatus and equipment, N.E.S.
		882		Photographic and cinematographic supplies
		884		Optical goods, N.E.S.
INTERDEP	Photocopiers	7513		Copying apparatus
		7513	7513100	Electrostatic photocopying apparatus operated by reproduction directly onto copy
			7513200	Electrostatic photocopying apparatus operated by reproduction via intermediate copy

			7513300	Non-electrostatic photocopying apparatus incorporating optical system
			7513400	Non-electrostatic photocopying apparatus of contact type
			7513500	Thermo-copying apparatus
INTERDEP	Blank Recording Material	8984		Unrecorded media
			8984100	Magnetic tapes for sound recording/similar recording other phenomena, 4mm wide or less
			8984101	Computer magnetic tapes for sound recording or similar...
			8984109	Other magnetic tapes for sound recording or similar...
			8984300	Magnetic tape for sound recording/similar recording other phenomena, more than 4mm wide but not more than 6.5mm
			8984301	Computer magnetic tapes for sound recording or similar...
			8984309	Other magnetic tapes for sound recording or similar...
			8984501	Magnetic computer tapes widths of 1/2 inch [12.7mm] or wider, prepared, unrecorded
			8984502	Magnetic tapes for sound recording or similar recording of...
			8984509	Other magnetic tapes for sound/similar recording width exceeding 6.5mm
			8985101	Computer magnetic discs and diskettes, unrecorded
			8985109	Other magnetic discs, unrecorded
			8985900	Prepared, unrecorded media, N.E.S.
			8985901	Compact discs (CD) media
			8985903	Cards incorporating a magnetic stripe
			8985909	Other unrecorded media, N.E.S.
INTERDEP	Paper	64		Paper, paperboard, and articles of paper pulp, of paper or of paperboard
		895		Office and stationery supplies, N.E.S.
	Ink	532		Dyeing and tanning extracts, and synthetic tanning materials
		533		Pigments, paints, varnishes, and related materials
PARTIAL	Apparel, textiles, footwear	65		Fabrics, made-up articles of textile materials
		652		Cotton fabrics, woven (not including narrow or special fabrics)
		653		Fabrics, woven, of man-made textile materials (not including narrow or special fabrics)
		654		Other textile fabrics, woven

		655		Knitted or crocheted fabrics (including tubular knit fabrics, N.E.S., pile fabrics and open-worked fabrics), N.E.S.
		656		Tulles, lace, embroidery, ribbons, trimmings and other small wares
		657		Special yarns, special textile fabrics and related products
		658		Made up articles, wholly or chiefly of textile materials, N.E.S.
		831		Trunks, suitcases, briefcases, camera cases and similar containers
		84		Articles of apparel and clothing accessories
		85		Footwear
PARTIAL	Jewelry and coins	897		Jewelry, goldsmiths' and silversmiths' wares, and other articles of precious or semi-precious material
		961		Coins (other than gold coin), not being legal tender
		885		Watches and clocks
PARTIAL	Furniture	821		Furniture and parts thereof
PARTIAL	Household goods, china, glass	635		Wood manufactures, N.E.S.
		664		Glass
		665		Glassware
		897		Household equipment of base metal, N.E.S.
PARTIAL	Wall coverings, carpets	659		Floor coverings, etc.
PARTIAL	Toys and games	8942		Toys, parts and accessories
		8942	8942101	Wheeled toys designed to be ridden by children (e.g., tricycles, scooters, etc)
			8942102	Dolls' carriages and parts
			8942108	Parts, N.E.S., of wheeled toys designed to be ridden by children
			8942200	Dolls representing only human beings
			8942301	Garments and accessories, footwear and headgear, of dolls representing only human beings
			8942309	Other parts and accessories of dolls representing only human beings
			8942401	Electric trains including tracks, signals and other accessories
			8942403	Reduced-size (scale) model assembly kits excluding of sub-item 8942401
			8942404	Parts, N.E.S. of sub-item 8942403
			8942409	Other construction sets and constructional toys, of plastic
			8942411	Parts, N.E.S. of sub-item 8942409
			8942412	Other construction sets and constructional toys, other than...
			8942501	Toys representing animals/non-human creatures, stuffed

			8942502	Parts, N.E.S. of sub-item 8942501
			8942503	Toys representing animals/non-human creatures, other than stuffed
			8942504	Parts, N.E.S. of sub-item 8942503
			8942601	Toy musical instruments and apparatus
			8942608	Parts, N.E.S. of sub-item 8942601
			8942700	Puzzles (toys)
			8942901	Toys, made up in sets/outfits, N.E.S.
			8942902	Parts, N.E.S. of sub-item 8942901
			8942903	Toys and models, incorporating motor, N.E.S.
			8942904	Parts, N.E.S. of sub-item 8942903
			8942909	Other toys, N.E.S.
			8942911	Parts, N.E.S. of sub-item 8942909
	Toys and games	8943		Games, equipment and parts
			8943301	Billiard chucks
			8943302	Billiard tables
			8943309	Other articles and accessories for billiards
			8943501	Other games, coin-/disc-operated machines, used, in cafes, funfairs, etc
			8943508	Parts, N.E.S. of sub-item 8943501
			8943700	Playing cards
			8943901	Mahjong, chess, checkers and similar game sets
			8943902	[Bowling alleys], pool and similar tables for indoor games
			8943903	Equipment for bowling, pool and similar table games except billiards
			8943904	Darts and dartboards
			8943905	Bowling requisites of all kinds (e.g., automatic bowling alley...)
			8943909	Equipment for parlor, table and funfair games for adults or children, N.E.S.
			8943911	Parts, N.E.S. of sub-item 8943909
PARTIAL	Architecture, engineering, surveying		8928200	Plans and drawings for architectural, engineering, industrial, or similar purposes
PARTIAL	Other crafts	8991		Molded/carved art
		8991	8991101	Worked capiz shells and articles (including articles obtained by molding), N.E.S.
			8991102	Handbags of shell
			8991109	Other manufactures of animal shell (including articles obtained by molding), N.E.S.
			8991112	Worked bone (excluding whale bone) and art (including art obtained by molding), N.E.S.
			8991114	Worked mother-of-pearl (excluding whale bone) and art (including art obtained by molding), N.E.S.
			8991119	Other animal carving material, N.E.S., and art, N.E.S., except imitation jewelry
			8991902	Art of unhardened gelatin, N.E.S., and worked, unhardened gelatin in shape (not rectangular)

		8991903	Worked vegetable carving materials (including corozo) and articles, N.E.S.
		8991904	Worked jet, mineral substitute for jet amber, meerschaum and other mineral carving material and art
		8991905	Molded/carved art, N.E.S., of wax, stearin, natural gums, and other molded/carved art, N.E.S.
Other crafts	8992		Artificial flowers, plants
	8992	8992101	Artificial flowers, foliage/fruit and parts, of plastics
		8992102	Artificial trees and plants, of plastics
		8992103	Art made of artificial flowers, foliage/fruit (other than artificial trees and plants), N.E.S.
		8992901	Artificial flowers, foliage/fruit and parts, of materials other than plastics
		8992902	Artificial trees and plants, of materials other than plastics
		8992903	Art of artificial flowers, foliage/fruit, of materials other than plastics
Other crafts	8997		Art and basketwork from plaited material
	89971	8997101	Baskets and basket ware containers, of vegetable plaited material
		8997102	Handbags, wallets, purses and similar art, of vegetable plaited material
		8997103	Abaca hemp coasters
		8997104	Coasters of other vegetable plaited material
		8997105	Abaca hot pads
		8997106	Abaca placemats
		8997107	Buri placemats
		8997108	Pandan placemats
		8997111	Placemats of other vegetable plaited material
		8997119	Other basketwork and art from plaited material goods-89973, 89974, 89979
		8997121	Basket and basket ware containers, from plaited material (except vegetable) goods of 89973, 89979
		8997122	Handbags, wallets, purses and similar art from plaited material (except vegetable) of 89973, 89979
		8997129	Other basketwork and other art from plaited material/goods-89973,89964 or 89979, except of vegetables
* PSCC is the nomenclature used in recording and classifying traded goods. 7-digit PSCCs are the most disaggregated level of classification.			

Source: National Statistical Coordination Board, Philippine Standard Commodity Classification.

Annex C

Brief History / Overview of Philippine Copyright Law

The United States Copyright Act of 1909, providing for a term of 28 years for copyright, was adopted in the Philippines during the American occupation through Act 3134 (Copyright Law of the Philippine Islands) approved on March 6, 1924, giving equal rights to citizens of the United States. After the Philippines gained its independence and became a republic, Proclamation 2819 was issued by US President Harry S. Truman on October 21, 1948 granting reciprocal rights to citizens of the Philippines citing reciprocal rights granted to United States citizens under Act 3134 and Republic Act 76 approved by the Philippine Legislature on October 21, 1946. Registration, preceded by examination, was required for copyright to exist. The requirement of examination and registration was removed by Presidential Decree No. 49 (Decree on Intellectual Property), approved on November 14, 1972, which declared that copyright exists from the moment of creation although registration and deposit of the work continued to be required before the copyright owner was entitled to recover damages in an infringement suit. The current law, Republic Act No. 8293 (Intellectual Property Code of the Philippines) maintains that copyright exists from the moment of creation and requires deposit of a work only to complete the collection of the National Library and the Library of the Supreme Court of the Philippines.

The IP Code provides copyright protection to original literary and artistic works from the moment of their creation. Certain derivative works are also protected by copyright.

Works are protected by the sole fact of their creation, irrespective of their mode or form of expression, as well as of their content, quality and purpose. However, for the purpose of completing the records of the National Library and the Supreme Court Library, two complete copies or reproductions of the work shall be deposited within three weeks after the first public dissemination or performance of the work by authority of the copyright owner. All copies deposited shall become the property of the Government and shall be open to public inspection.

Each copy of a work published or offered for sale may contain a notice bearing the name of the copyright owner, and the year of its first publication, and, in copies produced after the creator's death, the year of death.

Literary and artistic works include:

- (a) Books, pamphlets, articles and other written works
- (b) Periodicals and newspapers
- (c) Lectures, sermons, addresses, dissertations prepared for oral delivery, whether or not produced in writing or other material form
- (d) Letters
- (e) Dramatic or dramatic-musical compositions; choreographic works or entertainment in mime shows
- (f) Musical compositions, with or without words
- (g) Works of drawing, painting, architecture, sculpture, engraving, lithography or other works or art; models or designs for works of art
- (h) Original ornamental designs or models for articles of manufacture, whether or not able to be registered as an industrial design, and other works of applied art;
- (i) Illustrations, maps, plans, sketches, charts and three-dimensional works relating to geography, topography, architecture or science
- (j) Drawings or plastic works of a scientific or technical character
- (k) Photographic works including works produced by a process analogous to photography; lantern slides

- (l) Audiovisual and cinematographic works and works produced by a process analogous to cinematography or any process for making audio-visual recordings
- (m) Pictorial illustrations and advertisements
- (n) Computer programs
- (o) Other literary, scholarly, scientific and artistic works

Ornamental designs or models for articles of manufacture may also be protected as industrial designs under the IP Code but protection as such is not required for copyright to subsist. Topography or layout designs of integrated circuits are protected under the same provisions of the IP Code on industrial design. However, there is no indication in the IP Code that topography or layout designs of integrated circuits are ornamental designs that may be protected by copyright.

The following **derivative works are protected** by copyright:

- (a) Dramatizations, translations, adaptations, abridgements, arrangements, and other alterations of literary or artistic works
- (b) Collections of literary, scholarly or artistic works, and compilations of data and other materials which are original by reason of the selection or coordination or arrangement of their contents

These derivative works are protected as new works provided that they do not affect the force of any subsisting copyright used or any part thereof, or be construed to imply any right to such use of the original works, or to secure or extend copyright in such original works.

In addition to the right to publish granted by the author, his heirs or assignees, the publisher shall possess a copyright consisting merely of the right of reproduction of the typographical arrangement of the published edition of the work.

The following are **not protected** by copyright:

- (a) Any idea, procedure, system, method or operation, concept, principle, discovery or mere data as such, even if they are expressed, explained, illustrated or embodied in a work
- (b) News of the day and other miscellaneous facts having the character of mere items of press information
- (c) Any official text of a legislative, administrative or legal matter as well as any official translation thereof
- (d) Any work of the Government of the Philippines. However, prior approval of the Government is required for the exploitation for profit of such works. The Government may impose conditions such as the payment of royalties.

No prior approval is required for the use of any purpose of statutes, rules and regulations, and speeches, sermons, addresses, and dissertations, pronounced, read or rendered in courts of justice, before administrative agencies, in deliberative assemblies and in meetings of a public character. However, the author of such speeches, lectures, sermons, addresses, and dissertations shall have the exclusive right of making a collection of his works.

The Government is not precluded from receiving and holding copyrights transferred to it by assignment, bequest or otherwise. The publication or re-publication by the Government in a public document of any work in which copyright is subsisting shall not be taken to cause any abridgement or annulment of the copyright or to authorize any use or appropriation of such work without the consent of the copyright owners.

Copyright or economic rights consist in the exclusive right to carry out, authorize or prevent the following:

- (a) Reproduction of the work or a substantial portion thereof
- (b) Dramatization, translation, adaptation, abridgement, arrangement or other transformation thereof
- (c) The first public distribution of the original and each copy of the work by sale or other forms of transfer of ownership
- (d) Rental of the original or a copy of an audiovisual or cinematographic work, a work embodied in a sound recording, a computer program, a compilation of data and other materials or a musical work in graphic form, irrespective of the ownership of the original or the copy which is the subject of the rental
- (e) Public display of the original or a copy thereof
- (f) Public performance of the work
- (g) Other communication to the public of the work

Copyright in a work of architecture includes the right to control the erection of any building which reproduces the whole or a substantial part of the work in its original form or in any form recognizably derived from the original. However, the right does not include the right to control the reconstruction or rehabilitation in the same style as the original of a building to which the copyright relates.

The private reproduction of a published work in a single copy, where the reproduction is made by a natural person exclusively for research and private study does not require the authorization of the author, except as follows:

- (a) A work of architecture in the form of a building or other construction
- (b) An entire, or substantial part, of a book or a musical work
- (c) A compilation of data and other materials
- (d) A computer program
- (e) Any work where the reproduction would unreasonably conflict with a normal exploitation of the work or would unreasonably prejudice the legitimate interests of the author

The following do **not** constitute **infringement** of copyright provided the work is not used in a manner which conflicts with the normal exploitation of the work and does not unreasonably prejudice the right of the owner's legitimate interest.

- (a) The recitation or performance of a work, once it has been lawfully made accessible to the public, if done privately and free of charge or made strictly for a charitable or religious institution or society
- (b) The making of quotations from a published work if they are compatible with fair use and only to the extent justified for the purpose, including quotations from newspaper articles and periodicals in the form of press summaries provided the source and the name of the author, if appearing on the work, are mentioned
- (c) The reproduction or communication to the public by mass media of articles on current political, social, economic, scientific or religious topics, lectures, addresses and other works of the same nature, which are delivered in public if such use is for information purposes and has not been expressly reserved provided that the source is clearly indicated
- (d) The reproduction and communication to the public of literary, scientific or artistic works as part of reports of current events by means of photography, cinematography or broadcasting to the extent necessary for the purpose

- (e) The inclusion of a work in a publication, broadcast, other communication to the public, sound recording or film, if such inclusion is made by way of illustration for teaching purposes and is compatible with fair use provided that the source and name of the author, if appearing in the work, are mentioned
- (f) Recordings made in schools, universities, or educational institutions of a work included in a broadcast for the use of such schools, universities or educational institutions provided that such recordings must be deleted within a reasonable period after they were first broadcast and that such recordings may not be made from audiovisual works which are part of the general cinema repertoire of feature films except for brief excerpts of the work
- (g) The making of ephemeral recordings by a broadcasting organization by means of its own facilities and for use in its own broadcast
- (h) The use made of a work by or under the direction or control of the Government, by the National Library or by educational, scientific or professional institutions where such use is in the public interest and is compatible with fair use
- (i) The public performance or the communication to the public of a work, in a place where no admission fee is charged in respect of such public performance or communication, by a club or institution for non-profit-making charitable educational purposes only
- (j) Public display of the original or a copy of the work not made by means of a film, slide, television image or otherwise on screen or by means of any other device or process provided that, either the work has been published, or, that the original or the copy displayed has been sold, given away or otherwise transferred to another person by the author or his successor in title
- (k) Any use made of a work for the purpose of any judicial proceedings or for the giving of professional advice by a legal practitioner

Fair use of a copyrighted work for criticism, comment, news reporting, teaching including multiple copies for classroom use, scholarship, research, and similar purposes is not an infringement of copyright. In determining whether the use made of a work in any particular case is fair use, the factors to be considered shall include:

- (a) The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit-making educational purposes
- (b) The nature of the copyrighted work
- (c) The amount and substantiality of the portion used in relation to the copyrighted work as a whole
- (d) The effect of the use upon the potential market for or value of the copyrighted work.

Decompilation, which is the reproduction of the code and translation of the forms of the computer program to achieve inter-operability of an independently-created computer program, may also constitute fair use.

The reproduction in one back-up copy or adaptation of a computer program is permitted without authorization of the author or other owner of the copyright in a computer program where the copy or adaptation is necessary for:

- (a) The use of the computer program in conjunction with a computer for the purpose and to the extent for which the computer program has been obtained
- (b) Archival purposes, and, for the replacement of the lawfully-owned copy of the computer program in the event that the lawfully-obtained copy of the computer program is lost, destroyed or rendered unusable.

No copy or adaptation shall be used for purposes other than those given above, without prejudice to the application of fair use whenever appropriate.

Independent of the economic rights or the grant of an assignment or license, the author has the following **moral rights**:

- (a) To require that the authorship of the work be attributed to him, in particular, the right that his name, as far as practicable, be indicated in a prominent position on the copies, and in connection with the public use of his work
- (b) To make any alterations to his work prior to, or to withhold it from, publication
- (c) To object to any distortion, mutilation or other modification of, or other derogatory action in relation to, his work, which may be prejudicial to his honor or reputation
- (d) To restrain the use of his name with respect to any work not of his own creation or in a distorted version thereof

Moral rights may be waived in a written instrument except where the effect of the waiver is to permit another: (1) to use the name of the author, or the title of his work, or otherwise to make use of his reputation with respect to any version or adaptation of his work which would substantially tend to injure the literary or artistic reputation of another author because of the alterations made in the work, or, (2) to use the name of the author with respect to a work he did not create.

When an author contributes to a collective work, his right to have his contribution attributed to him is deemed waived unless he expressly reserves it.

In the absence of a contrary stipulation at the time an author licenses or permits another to use his work, the necessary **editing, arranging or adaptation** of his work for publication, broadcast, use in a motion picture, dramatization, or mechanical or electrical reproduction in accordance with the reasonable and customary standards or requirements of the medium in which the work is to be used shall not contravene the author's moral rights. Also, the **complete destruction of a work** unconditionally transferred by the author shall not be deemed to violate moral rights.

An author cannot be compelled to perform his contract to create a work or for the publication of his work already in existence but he may be liable for damages for **breach of contract**.

During his lifetime and for 50 years after his death, the author or his heirs shall have an inalienable right to participate up to the extent of 5 percent of the **gross proceeds of every subsequent sale or lease** of an original work of painting or sculpture or of the original manuscript of a writer or composer, except prints, etchings, engravings, works of applied art, or works of similar kind wherein the author primarily derives gain from the proceeds of reproductions.

Performers, producers of sound recordings, and broadcasting organizations enjoy rights under the law.

Performers have the following exclusive rights:

- (a) The right to authorize the broadcasting and other communication to the public, and the fixation of their performances
- (b) The right to authorize the direct or indirect reproduction of their performances fixed in sound recordings, in any manner or form

- (c) The right to authorize the commercial rental to the public of the original and copies of their performances fixed in sound recordings, even after distribution of the performances by or pursuant to authorization by the performer
- (d) The right to authorize the making available to the public of their performances fixed in sound recordings, by wire or wireless means, in a way that members of the public may access them from a place and time individually chosen by them
- (e) The right to authorize the first public distribution of the original and copies of their performance fixed in the sound recording through sale or rental or other forms of transfer of ownership.

Once the performer has authorized the broadcasting or fixation of his performance, these exclusive rights shall no longer apply but he shall be entitled to **additional remuneration** of at least 5 percent of the original compensation he received for the first communication or broadcast of the performance **for every subsequent communication to the public or broadcast** of the performance by broadcasting organizations, unless otherwise provided for in the contract.

Performers may agree under contract **to terms and conditions more favorable** for them in respect of any use of their performances

Producers of sound recordings have the following exclusive rights:

- (a) The right to authorize: (i) the direct or indirect reproduction of their sound recordings in any manner or form, (ii) the placing of these reproductions on the market and (iii) the right of rental or loan
- (b) The right to authorize the first public distribution of the original and copies of their sound recordings through sale or rental or other forms of transferring ownership
- (c) The right to authorize the commercial rental of the original and copies of their sound recordings, even after distribution by them or pursuant to authorization by the producer.

A **single equitable remuneration** for the performer or performers and the producer of the sound recording shall be paid by the user to both the performers and producer of the sound recording if a sound recording published for commercial purposes, or a reproduction of such sound recording, is used directly for broadcasting or for other communication to the public, or is publicly performed with the intention of making and enhancing profit. In the absence of any agreement, the performers and the producer shall enjoy an equal share.

Broadcasting organizations have the exclusive right to carry out, authorize or prevent any of the following acts:

- (a) The re-diffusion of their broadcasts
- (b) The recording in any manner, including the making of films or the use of video tape, of their broadcasts for the purpose of communication to the public of television broadcasts of the films or video tapes
- (c) The use of such records for a new transmission or for a new recording

The exclusive rights given to performers, producers of sound recordings and broadcasting organizations shall not apply to:

- (a) The use by a natural person exclusively for his own personal purposes
- (b) Using short excerpts for reporting current events

- (c) Use solely for the purpose of teaching or for scientific research
- (d) Fair use of the broadcast for criticism, comment, news reporting, teaching including multiple copies for classroom use, scholarship, research, and similar purposes taking into account factors that shall include:
 - (i) The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit-making educational purposes
 - (ii) The nature of the copyrighted work
 - (iii) The amount and substantiality of the portion used in relation to the copyrighted work as a whole
 - (iv) The effect of the use upon the potential market for or value of the copyrighted work.

Annex D

List of Laws

Current Laws

Intellectual Property Code of the Philippines (Republic Act. No. 8293)

An Act prescribing the Intellectual Property Code and establishing the Intellectual Property Office, providing for its powers and functions, and for other purposes

Effective Date: January 1, 1998

E-Commerce Law of the Philippines (Republic Act No. 8792)

An Act providing for the recognition and use of electronic commercial and non-commercial transactions, penalties for unlawful use thereof, and other purposes

Effective Date : July 3, 2000

Optical Media Act of 2003 (Republic Act No. 9239)

An Act regulating optical media, reorganizing for this purpose the Videogram Regulatory Board, providing penalties therefor, and for other purposes

Effective Date: March 2, 2004

Previous Laws

Act No 3134 Copyright Law of the Philippine Islands approved on March 6, 1924, adopted the US Copyright Law of 1909 and gave citizens of the United States equal rights

Republic Act 76 an Act to Repeal Laws or Provisions of Laws Granting Rights to American Citizens, Corporations, and Associations, unless they Affect Rights already Vested under the Constitution or Extended by Treaty, Agreement or Convention with the United States of America approved on Oct 21, 1946

Republic Act 422 (January 6, 1950) authorized the President to reorganize the executive department and thereby the Bureau of Public Libraries was mandated to conduct examination of copyright applications

Presidential Decree 49 (Nov 14, 1972) Decree on Intellectual Property – abolished the requirement of examination and registration by providing that copyright exists from the moment of creation although the failure to deposit with the National Library prevents the recovery of damages in an infringement suit

Presidential Decree 285 (September 23, 1973) amended by Presidential Decree 1203 (Sept 27, 1977) and PD 400 (March 1, 1974) – authorized the compulsory licensing or reprinting of educational, scientific or cultural books and materials as a temporary or emergency measure whenever the prices thereof became so exorbitant as to be detrimental to the national interest; and to provide effective controls or safeguards against any abuses of the rights of foreign or domestic authors and publishers and so as not to deprive them of the returns on their works or investments.

– repealed by Republic Act No 8293 (Intellectual Property Code of the Philippines, 1998)

List of abbreviations used

ASEAN	Association of Southeast Asian Nations
ASPBI	Annual Survey of Philippine Business and Industry
BMC	Broadcast Media Council
CBI	Copyright-Based Industries
CPBI	Census of Philippine Business and Industry
FIES	Family Income and Expenditures Survey
FILSCAP	Filipino Society of Composers, Artists and Publishers
GDP	Gross Domestic Product
GNP	Gross National Product
IP Code	Intellectual Property Code of the Philippines or Republic Act No. 8293
ISBN	International Standard Book Number
ISIC	International Standard Industrial Classification
KBP	Kapisanan ng mga Brodkaster sa Pilipinas
NAICS	North American Industry Classification System
NBDB	National Book Development Board
NCR	National Capital Region of the Philippines (The country's capital is considered the country's major commercial, financial and educational center and the heart of its national government. It is comprised of thirteen (13) cities, namely: Caloocan, Las Piñas, Makati, Malabon, Mandaluyong, Marikina, City of Manila, Muntinlupa, Parañaque, Pasay, Pasig, Quezon and Valenzuela; and four (4) municipalities, namely: Navotas, San Juan, Pateros and Taguig)
NEDA	National Economic and Development Authority
NSCB	National Statistical Coordination Board
NSO	National Statistics Office
PSIC	Philippine Standard Industrial Classification
PSCC	Philippine Standard Commodity Classification
QPSPI	Quarterly Survey of Philippine Business and Industry
SEC	Securities and Exchange Commission
UNSD	United Nations Statistics Division
WIPO	World Intellectual Property Organization
WIPO Guide	WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries

Bibliography

- Allen Consulting (2001). *The Economic Contribution of Australia's Copyright Industries*. Prepared for the Australian Copyright Council and Center for Copyright Studies.
- Bautista, Arsenio (2002). *History of Philippine Cinema*, National Commission for Culture and the Arts, www.ncca.gov.ph.
- Bolasco, Karina A. (2004). *Emerging Trends in Philippine Publishing*, *Bookwatch*. National Book Development Board, www.nbdb.gov.ph, Dec 2004.
- Buhain, Dominador D. (2005). *Publishing Today*. Paper presented during the 2005 Bangkok International Bookfair, 26 March 2005.
- Carmel, Erran (2003). *Taxonomy of New Software Exporting Nations*, *Electronic Journal on Information Systems in Developing Countries (EJISDC)*, www.ejisdc.org, vol.13 no. 2, pp.1-6.
- British Columbia Innovation Council (2004). *State of the Sector Report on Philippine Software Development*. Prepared for the Pearl2 Project (funded by the Canadian International Development Agency).
- Computerworld (2003). *Country Analysis: Philippines*. 15 Sept 2003.
- De la Cruz, Romeo (2004). *The Philippines Printing Industry in the Globalization Era*. Paper presented during the 7th Annual Meeting of the Forum of Asian Graphic Arts Technology (FAGAT) in Malaysia on 13 March 2004, Japan Association of Graphic Arts Technology, 1 Oct 2004.
- De Vera, Roberto E. (2002). *The Employment Impact of Business-to-Commerce E-Commerce on Philippine Workers*. Philippine APEC Study Center Network (PASCN) Discussion Paper No. 2002-09, Philippine Institute for Development Studies, September 2002.
- Garcia, Leonardo Jr. and Carmelita Masigan (2001). *An In-Depth Study on the Film Industry in the Philippines*.
- History of Philippine Cinema, (n.d.). www.onlineessays.com.
- Intellectual Property Office (2006). *Strengthening the IP System: the Campaign against Piracy and Counterfeiting in the Philippines (2005-2006)*, Comment of the GRP submitted to the USTRO in relation to the annual Special 201: Philippines, www.ipophils.gov.ph.
- International Intellectual Property Alliance (2005). *Initial Survey of the Contribution of the Copyright Industries to Economic Development*. April 2005.
- Chow Kit Boey, Leo Kah Mun, Lee Kee Beng, Ong Chin Huat, and Loy Wee Loon, (2004). *The Economic Contribution of Copyright-Based Industries in Singapore*. Prepared for IP Academy, NUS Consulting, October 2004.
- Manalastas, Leonardo G. Jr. (2003). *State of the Philippine Printing Industry (part 2): Facing the Challenges in the Printing and Graphic Arts Industry*. Paper presented during the 6th Annual Meeting of the Forum of Asian Graphic Arts Technology (FAGAT) in Singapore in 2002, Japan Association of Graphic Arts Technology, 25 July 2003.

Media Group of the Business Research and Development Center, Turku School of Economics and Business Administration (2003). *The Contribution of Copyright and Related Rights to the European Economy*. Prepared for the European Commission. 20 Oct 2003.

Medija, Brian Dexter M. (n.d.). *Philippine Radio Broadcasting: A Report*.

National Book Development Board (2004). *Annual Report*.

National Statistics Office (2000). *2000 Census of Philippine Business and Industry*. National Statistics Office (2003) Annual Survey of Philippine Business and Industry.

National Statistics Office (2003) *Family Income and Expenditure Survey*.

National Statistics Office (various). *Labor Force Surveys*.

National Statistics Office (1999). *Foreign Trade Statistics*.

National Statistics Office (2003). *Foreign Trade Statistics*.

New Royalty Payment for Authors, Publishers Unveiled, Bookwatch, December 2005, p.8

North American Industry Classification System (NAICS). Index to 2002 NAICS Coding.

Philippine Information Agency (1998). *Film and Video in the Philippines*, www.pia.gov.ph, posted 21 May 1998.

Santos, Rudymel (2004). *The Philippines as the Publishing Hub of Asia*, Bookwatch, National Book Development Board, www.nbdb.gov.ph, Dec 2004.

Siwek, Stephen E (2004). *Copyright Industries in the U.S. Economy: the 2004 Report*. Prepared for the International Intellectual Property Alliance.

State of the Philippine Printing Industry (n.d.).

State University of Campinas (UNICAMP) and World Intellectual Property Organization (WIPO) (2002). *Estudio Sobre la Importancia Economica de las Industria y Actividades Protegidas por el Derecho de Autor y los Derechos Conexos en los Paises de Mercosur y Chile*.

Tuazon, Ramon R. (2002). *Philippine Television: That's Entertainment*, National Commission for Culture and the Arts, www.ncca.gov.ph.

Tullao, Tereso Jr. and Raymund Habaradas (2001). *An In-Depth Study on the Printing and Publishing Industry in the Philippines*. Prepared by the Center for Business and Economics Research and Development of De La Salle University.

USAID-AGILE, *IPR Diagnostic Report*, September 2001.

US Commercial Service (2004). *Advertising, Media and Trade Promotion, in Country Commercial Guide*, 15 July 2004.

Wall Communications Inc. (2004). *The Economic Contribution of Copyright Industries to the Canadian Economy*. Prepared for Canadian Heritage.

World Intellectual Property Organization (2003). *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*. Geneva.

Emma Cariño Francisco

Emma C. Francisco was the first Director General and was responsible for setting up the Intellectual Property Office of the Philippines. As such, she promulgated the first (at least eight) major sets of rules and regulations and several office orders to institutionalize personnel mechanisms and office procedures utilizing information and telecommunications technology to attain transparency in government service. She served the only 7-year term (1998-2004) in that position, the rest being 5-year terms. Prior to becoming Director General, Attorney Francisco was the last Director of the Bureau of Patents, Trademarks and Technology Transfer (1996-1997). During her service in the Government, Attorney Francisco spearheaded legislative work which led to the enactment of the Intellectual Property Code of the Philippines (1998), the Law on Topographies of Integrated Circuits (2001), the New Plant Variety Protection Law (2002), the Optical Media Act (2003), ratification of the substantive provisions of the Berne Convention (1997), ratification and implementation of the Patent Cooperation Treaty (2001), ratification of the two WIPO Internet Treaties (2002). Mrs. Francisco was also a delegate to the Diplomatic Conference which adopted the WIPO Internet Treaties, 1996, Chairman, ASEAN Working Group on Intellectual Property Cooperation (AWGIPC), 1997 to 1999, Co-Chairman, ASEAN-EU *ad hoc* Experts' Group on Intellectual Property, 1997 to 1999, Philippine Representative, Asia Pacific Economic Cooperation-Intellectual Property Experts Group (APEC-IPEG), Chairman, ASEAN Working Group on Intellectual Property Cooperation (WGIPC) – Patents Expert Group, Head of Delegation, Patent Law Treaty (PLT), 2000, Head of Delegation, TRIPS Council Review, 2001, Chairman, Presidential Inter Agency Committee on Intellectual Property Rights (PIAC IPR), 1999 to 2000, during which she initiated the creation of the PIAC-IPR sub-committee on enforcement. When the Inter-Agency Committee was abolished, Mrs. Francisco convened the IPR Enforcement Action Panel (IP-REAP), 2002, a body with a broader base consisting of enforcement agencies, business and professional organizations, academia and other government agencies, to help ensure the continuity of coordination among public and private institutions concerned with intellectual property rights. The first major output of IP-REAP was the Handbook on IPR Enforcement.

Attorney Francisco arbitrated more than three hundred contested intellectual property cases. She likewise successfully mediated the cases between the Filipino Society of Composers, Authors and Publishers and the two leaders in the Philippine broadcasting industry which led to the signing of two separate agreements which form the basis for payment of royalties in the music industry.

She is the founding chairman of the Intellectual Property Professors and Researchers Organization of the Philippines (IP-PRO Phil) Inc. Now, as was the case prior to her joining the Government, Attorney Francisco practices law including commercial, civil and criminal litigation, taxation, with particular emphasis on intellectual property. Apart from her law practice and IP consultancy, Mrs. Francisco is a resource person in national, regional and international circles. She gives lectures in various national fora including the Institute of Judicial Administration attended by judges and other members of the judiciary, and the Mandatory Continuing Legal Education required by the Supreme Court of the Philippines for lawyers who wish to remain in good standing (abreast of changes).

Born on November 5, 1956, married with four children aged 19, 20, 22 and 24, Attorney Francisco obtained her college and law degrees from the University of the Philippines.

Loreli Cataylo de Dios

Mrs. de Dios is an economist with extensive research experience covering the Philippines and the rest of Asia under consultancy contracts with local and international institutions. She has undertaken projects for the Asian Development Bank (ADB), the Secretariat of the Association of Southeast Asian Nations (ASEAN), the United States Agency for International Development (USAID), and the European Commission, among other contracting agencies. These have dealt with trade and other policy issues, trade facilitation, regional integration, intellectual property rights, industry performance, as well as systems improvements and economic databases.

Mrs. de Dios has additional capabilities in project management including those with political reform objectives and was instrumental in establishing the institutional arrangements for international cooperation in one program and in the passage of critical legislation in another. She is also currently connected with the Center for the Advancement of Trade Integration and Facilitation.

Mrs. de Dios obtained her A.B. (1976) and M.A. (1983) in Economics from the School of Economics, University of the Philippines-Diliman.

Erniel B. Barrios

Mr. Barrios is a statistician whose research interests are the Spatio-Temporal Models, Nonparametric Bootstrap, Rural Development, Sustainable Development and Mining Business and Consumer Rights.

He is currently the Chairman of the Technical Committee on Survey Design of the National Statistical Coordination Board. He has held various academic positions in the School of Statistics of the University of the Philippines-Diliman, is a published author, and attended international and local conferences.

Mr. Barrios received his BS Statistics from the University of the East in 1985, his MA (1987) and PhD (1990) in Statistics at the University of the Philippines-Diliman. He finished Post-Doctoral Research in Bio-Economics at the University of Washington in 1997.

Albert P. Tijam, Jr.

Mr. Tijam is a junior researcher, with related research experience as Social Projects Assistant with the USAID-Winrock-Alliance for Mindanao Off-Grid Renewable Energy (AMORE) Program, and as a Supervising Legislative Staff Officer II at the House of Representatives Electoral Tribunal.

Mr. Tijam obtained his BA Public Administration degree at the University of the Philippines-Diliman. He is currently an MA History student at the same university.

The Economic Contribution of Copyright-Based Industries in Mexico

Prepared for
The World Intellectual Property Organization

Victoria Márquez-Mees
Mariano Ruiz Funes
Berenice Yaber

December 2006

* The survey was commissioned by the World Intellectual Property Organization. Ms. Marquez-Mees who acted as lead author / coordinator of the project is an Associate Director of PROA|StructurA and has worked extensively in the cultural industries arena; Mr. Funes and Ms. Yaber are respectively Director General and Partner at GEA|StructurA, a leading economic and political analysis consultancy firm in Mexico.

Note

The views expressed in this report are those of the authors and as such are not intended to reflect the views of the World Intellectual Property Organization.

StructurA is a group of leading consultancy firms specialized in providing integral services to the main economic sectors of Mexico and to governmental institutions.

The group specializes in economic and political analyses, communications and public and government relations with a focus on promoting competitive conditions.

Contact:

Victoria Márquez-Mees Telephone: +52.55.91493362

Mariano Ruiz-Funes Telephone: +52.55.5639900

vmm@proa.structura.com.mx

mrf@gea.structura.com.mx

Executive Summary

Mexico is a country with a rich cultural tradition that is locally cherished and internationally acknowledged and valued. One would therefore expect, when embarking on a survey such as the one the World Intellectual Property Organization (WIPO) commissioned in December 2005, to find a dynamic cultural sector in which creativity and innovation pave the way for cultural industries in general and copyright-based industries in particular. The purpose of the study was to measure, as accurately as data limitations allowed, the contribution made by copyright-based industries to the Mexican economy by applying the WIPO methodological framework in terms of value added, employment and foreign trade.

The study found that in 2003, value added for the total of the Mexican copyright-based industries amounted to 259,071,480 Mexican pesos which represented 4.77 percent of GDP. Employment for these industries was reported at 1,787,464, 11.01 percent of total employment according to census figures for the same year. The contribution of the copyright-based industries to the economy, as measured by value added, was slightly above the construction sector (4 percent).

During the period 1998-2003, copyright-based industries faced a reduction in economic contribution mainly due to their slower annual average growth (0.73 percent) compared to that of the economy as a whole (2.5 percent average annual growth).

In contrast, employment generation during the same period grew 24 percent. This reflects the importance of copyright-based industries as employment generators.

In terms of foreign trade, both imports and exports reported growth during the study period and represented totals for 2003 of 11 percent and 14 percent respectively, reporting an overall trade surplus of US\$4,032 million, in contrast to the overall Mexican trade deficit.

The study also showed a change in the inner structure of copyright-based industries, with an increase in the contribution of core copyright industries (from 26 percent in 1998 to 32 percent in 2003 for value added) and a reduction in the contribution of interdependent industries (from 46 percent in 1998 to 38 percent in 2003).

The Economic Contribution of Core Copyright-Based Industries

During the period 1998 to 2003, the economic evolution of core copyright-based industries resulted in the following:

- The total number of economic establishments in these industries increased 6 percent, from 91,945 in 1998 to 97,109 in 2003.
- Total employment rose 47.3 percent, with a total of 178,000 new jobs created between 1998 and 2003, representing an annual average growth of 9.5 percent. Nevertheless, the total income, measured in Mexican pesos in 1998, reported an 11.1 percent fall, which indicates an important deterioration in remuneration for people working in this sector.
- In this period, value added generated by these industries grew 30.6 percent in real terms.

- Lastly, the investment indicators reveal a more moderate increase compared to those of value added and employment: fixed capital formation decreased by 14.8 percent during the same period, while fixed assets increased 3.6 percent in real terms

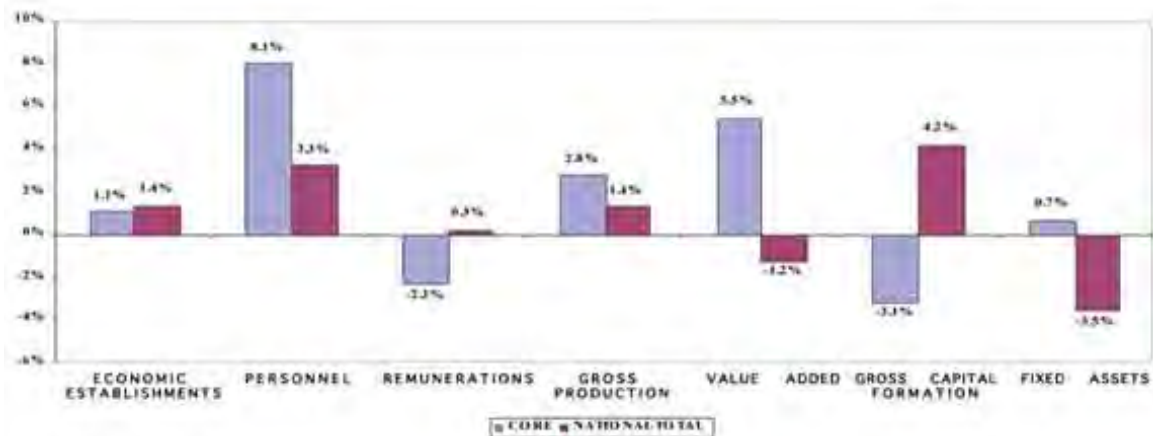
If we analyze the above findings we can reach relevant conclusions regarding Mexican core copyright industries. On the one hand, the number of premises and personnel employed represented more than 3 percent of the national total in the two-year reference period,¹ where growth in the contribution of employees went from 2.72 percent to 3.41 percent in the 1998 – 2003 period. In terms of value added, the shares are 2.47 percent and 2.6 percent respectively, showing a positive trend for core industries during the study period.

On the other hand, the fall in the income variable, from 3.2 percent in 1998 to 2.8 percent in 2003 reflects an important deterioration in remuneration to employees, thus counteracting the increase in employment in these industries in terms of quality.

In contrast, the negative trend for remuneration corresponding to core industries in the reference period should be noted as this decreased by an average of 2.3 percent annually in real terms, while capital formation increased 0.3 percent and 4.2 percent in comparison to the national level. This reflects a fall in human and fixed capital investments that will most probably make a negative contribution to the growth of core industries in the next few years.

Economic Indicators Core Industries vs National Total 1998-2003

(Annual percentage variations in real terms)



Source: INEGI

¹ Mexico's totals include industry, commerce and services; the primary sector is excluded (agriculture, livestock, forestry and fishery) and mining. See Chapter II for details of sectors included.

Finally, the study found that the Mexican copyright-based industries made a smaller contribution to the economy compared to other countries, although not significantly lower than the average.

For the future of these industries it is expected that with more effective enforcement of copyright protection legislation and the introduction of policies that generate an adequate investment environment, copyright-based industries will recover lost ground and provide ample employment opportunities for the country in general.

Another relevant recommendation resulting from this report is the need to create a satellite account for the cultural sector thus allowing for a more accurate and timely estimation of its contribution, as well as for the setting of priorities on policymaking.

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Acknowledgements

Our grateful thanks for their continued support, expert advice and time to everyone involved in this project but especially to:

Dimiter Gantchev, Creative Industries Division, World Intellectual Property Organization, for his patience and wise advice.

José Luis Zofio, Universidad Autónoma de Madrid, for his expert advice as one of the few economists working entirely in the cultural field.

Víctor Manuel Guizar, INDAUTOR, for believing that we could produce this report, his support during the process and his continued friendship.

Marcelo di Pietro, World Intellectual Property Organization, for his help, support and friendship.

Roberto Cantoral, SACM, for his advice and strength in pushing for stronger enforcement of the rule of law in Mexico.

To all cultural leaders, artists and creators whom we had the pleasure of meeting and who shared their expertise in this field.

To our family and friends who have for the last year constantly seen us working, complaining and creating this report.

Last, but not least, to César Alday, the best research assistant we could have ever found: best of luck in the world of economics.

Chapter I. Introduction

Copyright is recognized as one of the basic human rights in article 27, paragraph 2 of the Universal Declaration of Human Rights which states “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.”² This protection offers the possibility of developing and promoting the production of creative works that have traditionally been highly valued by society in terms not only of the value of their cultural heritage but more recently recognized for their contribution to economic growth.

Copyright, as a subject for study within the legal profession, has received little or no attention from economists, in spite of its representing one of the core production factors in the cultural industries. Recently, however, governments in different countries have started to recognize the economic importance of copyright and the industries which emerge as a result of copyright protection in a global environment where traditional economic systems based on agriculture and manufacture are slowly transforming into knowledge-based economies where intangible goods and works form the basis of growth and development.

This is linked to a series of factors:

- The growing acknowledgement of the role of intellectual property in post-industrial societies.
- The widening scope of copyright generated by the continuous innovation in digital technologies.
- As a result of this digital revolution, copyright-protected works are an essential element in e-commerce transactions.

In the case of Mexico, all the above factors contribute to the rich cultural heritage of our country which must be considered as a vital resource available for the promotion and growth of the industries that make it the basis of their output. Nevertheless, Mexico has been slow in taking advantage of such a wealth of resources as a motor for the country's development and it has continued to consider these industries to be merely a valuable cultural heritage and tradition. The main reason for this shortsightedness has been the lack of hard economic data to support the thesis that if properly promoted and supported, copyright-based industries could become one of the core elements for Mexico's economic growth and employment generation.

In December 2005, the Creative Industries Division of the World Intellectual Property Organization (WIPO), with the endorsement of the National Copyright Institute of Mexico, commissioned Victoria Márquez-Mees as lead consultant and *Grupo de Economistas Asociados (GEA|StructurA)* to produce a report measuring the economic contribution of copyright-based industries to the Mexican economy following the methodology developed by WIPO and published in 2003 under the title *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*.

In accordance with the terms of reference set by WIPO the survey aims at measuring the economic contribution of copyright and neighboring rights-based industries in Mexico, as well as improving the working of these industries.

² See www.unhcr.ch/udhr. Universal Declaration of Human Rights, Office of the High Commissioner for Human Rights.

Prior to the present survey, only one other study, by the economist Ernesto Piedras, commissioned by a group of Mexican copyright collecting societies, has attempted to estimate the contribution of copyright-based industries in the Mexican case.³ Therefore, it is expected that the present report will serve to generate greater awareness of the importance of copyright and its related industries for economic growth as well as to initiate the process of periodic measurement to evaluate their performance over time.

The research process involved in the production of this survey included the revision and classification of statistical data, carrying out a series of interviews with industry leaders, copyright collecting societies, government authorities and experts in the field, the revision of available literature for each of the industries and sectors analyzed and estimating the selected variables using the WIPO methodology for the calculation of the economic contribution of copyright-based industries in Mexico.

Following the terms of reference, the report is divided into six chapters: Chapter II presents the methodology used for estimating value added, employment and trade for the Mexican copyright-based industries; Chapter III gives a short summary of copyright protection in Mexico; Chapter IV is dedicated to estimating the economic contribution of the three selected variables for copyright-based industries (CBI), an analysis of the groups within the CBI and an international comparison of the Mexican CBI contribution with respect to a group of selected countries; Chapter V gives a more detailed background analysis of a group of core copyright industries and their recent performance. Finally, Chapter VI presents a series of conclusions and recommendations based on the findings of the study.

We hope that the present report will be seen not as an overriding conclusion to a final study but as a first step in a process of estimation requiring deeper analysis and research within a group of industries that, following international trends, will keep growing in importance if an adequate legal and economic environment is provided at the global and local levels.

³Piedras, Ernesto. *¿Cuánto vale la cultura? Contribución económica de las industrias protegidas por el derecho de autor en México* 2004. ISBN 968 7903 79 1. Study commissioned by the *Sociedad de Autores y Compositores de Música, SGC de IP, Sociedad General de Escritores de México, SGC de IP, Consejo Nacional para la Cultura y las Artes* and *Cámara Nacional de la Industria Editorial Mexicana*.

Chapter II. Study Methodology

This study has been commissioned by WIPO and its purpose is to estimate the economic contribution of industries and activities protected by copyright in Mexico through three main indicators: value added generated by the copyright-based industries, their share in employment and their contribution to foreign trade. The study follows the methodology proposed by WIPO for the measurement of the economic contribution of these industries. This methodology was published in 2003 under the title *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*⁴ and it outlines the methodological approach for identifying the contribution of copyright-based industries to the economy.

2.1. Definition of categories

Cultural industries include all those industries that combine the creation, production and marketing of intangible and cultural content. These industries produce “content” based on creativity and information under an economic system where intangible goods have increasingly gained importance and whose scope has expanded thanks to digital technology. This content is typically protected by copyright and may take the form of goods and/or services. By this definition, and in response to the main purpose of this study, it is possible to identify the sectors within the cultural industries that form part of what WIPO has termed copyright-based industries (CBI). Industries protected by copyright are those devoted to creation, production and manufacture, performing, broadcasting, communication and exhibitions, or distribution and sale of works and other protected materials.

WIPO’s approach to measurement of the economic contribution made by copyright-based industries has been aimed at categorizing these sectors according to the degree to which copyright protection constitutes a fundamental factor in their growth, development and strengthening in terms of production, employment and foreign trade. “Being a property right, the copyright in a work acquires a value which can be measured; it enables it to be traded and to participate fully in economic life.”⁵

Industries within this field are divided into fully or predominantly copyright-based industries and those others that to a lesser extent depend on copyright-based content. These industries can also be defined as “core” copyright industries, i.e., industries which predominantly produce or distribute copyright-based goods, and “non-core” industries, i.e., those that support or are interrelated with “core” copyright industries.⁶

The category of core copyright-based industries includes those industries whose main purpose is to produce protected materials for final consumption, whether for local or international markets, as well as those industries whose main purpose is the distribution of protected materials to businesses and/or private consumers. Also included in this category are industries that not only produce but also distribute protected materials.

⁴ See *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*, WIPO Publication No. 893(E), ISBN 92-805-1225-7, Geneva, WIPO 2003.

⁵ *ibid*, page 19.

⁶ *ibid*

Interdependent industries may be identified through the analysis of each chain in their pre-production and post-production stages. As presented in WIPO's methodology, these interdependent CBI are dedicated to production, manufacturing and sale of equipment whose total or fundamental function is to facilitate the creation, production or use of works and other materials protected by copyright.⁷

Partial industries are those in which some of the industrial activities are related to works and other materials protected by copyright and may involve the creation, production, manufacture, dissemination, communication or exhibition, as well as distribution and sale of these works and materials. In this category only those activities that are related to copyright-based works and materials should be included when estimating the economic contribution.

Finally, non-dedicated support industries are those that dedicate part of their activities to facilitating the dissemination, communication, distribution or sale of copyright-based works and materials that have not been included in the core category.

Table 2.1 shows the WIPO breakdown of the activities that make up each of the aforementioned categories and this may help the reader to clarify the industries and activities included in each category:

⁷ *ibid*, page 33.

Table 2.1. WIPO List of Copyright-Based Industries⁸

Category	Industry	Subgroups
CORE INDUSTRIES	Press and Literature	Authors, writers, translators; Newspapers; News agencies; Magazines; Book publishing; Cards and maps, directories and other published material; Pre-press, printing and post-press of books, magazines, newspapers, advertising materials; Press and literature retail and wholesale (bookstores, newsstands, etc.); Libraries.
	Music, Theater, Opera	Composers, arrangers, choreographers, directors, performers and others; Printing and publication of music; Production of recorded music; Recorded music wholesale and retail (sales and rental); Artistic and literary creation and interpretation; Staging and related agencies (reservations, tickets, etc.).
	Motion Picture and Video	Writers, directors, actors, etc; Motion picture and video production and distribution; Motion picture exhibition.
	Radio and Television	National radio and television broadcasting companies; Other radio and television broadcasters; Independent producers; Cable TV (systems and channels); Allied services.
	Photography	Studios and commercial photography; Photographic agencies and libraries.
	Software and Databases	Programming, development and design, manufacturing; Wholesale and retail prepackaged software (business programs, video games, educational programs, etc.); Database processing and publishing.
	Visual and Graphic Arts	Artists; Art galleries, wholesale and retail; Picture framing and other allied services; Graphic design.
	Advertising	Agencies, buying services.
	Copyright Collecting Societies	

⁸ See Appendix 1 in the WIPO *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*.

INTERDEPENDENT INDUSTRIES	Television equipment, radios, video-recorders, CDs, DVDs and cassette players, electronic gaming equipment and other similar equipment	Manufacturing Wholesale and retail (sales and rental)
	Computers and equipment	Manufacturing Wholesale and retail (sales and rental)
	Musical instruments	Manufacturing Wholesale and retail (sales and rental)
	Photography and movie equipment	Manufacturing Wholesale and retail (sales and rental)
	Recording material	Manufacturing Wholesale and retail (sales and rental)
	Paper	Manufacturing Wholesale and retail (sales and rental)
PARTIAL INDUSTRIES	Apparel, textiles and footwear	
	Jewelry and coins	
	Other handicrafts	
	Furniture	
	Household goods, china and glass	
	Wall coverings and carpets	
	Toys and games	
	Architecture, engineering and surveying	
	Interior design	
	Museums	
NON-DEDICATED SUPPORT INDUSTRIES	General wholesale and retail	
	General transportation	
	Telephony and Internet	

Source: WIPO

2.2. Identification and selection

According to the above and following the WIPO methodology, the first step taken to estimate the contribution of copyright-based industries to the Mexican economy involved the identification and selection of categories to be included in each of the sectors proposed by the methodology, subject to the availability of recent reliable statistical data and the level of disaggregation.

The first decision made during this process was to apply selection criteria for categories and activities as close as possible to that used in *Copyright Industries in the U.S. Economy: the 2004 Report*.⁹ Given that this is the first US report which follows the new definitions and guidelines set out in the 2003 WIPO Guide and that the statistical information used is of similar periodicity, and given the similarity of industrial systems and close trade relations resulting from the participation of the two countries in the North Free Trade Agreement (NAFTA), we decided not only to provide more reliable and comprehensive cross-country data comparisons between the two neighboring economies.

However, it should be mentioned that in spite of much common ground as regards economic structures, there persist differences between the two countries due to their different cultural, resource and development structures, which, as we will see, have resulted in two relevant factors as regards data selection:

- a. The more developed and sophisticated industrial structures of the US have given way to a series of economic activities which do not yet exist in Mexico. Therefore, not all activities reported for the US study have a counterpart in the Mexican case.
- b. In the case of Mexico, a more limited reporting system means that not all statistical information available in the case of copyright-based industries is reported at the lowest aggregation level, i.e., as a class of economic activity, which is the case for the US statistical data.

This limitation forced the authors to use whenever possible the statistical data at its most disaggregated level; that is the class of economic activity equivalent to the US class data. In those other cases where there was no corresponding census information available at the class level, a decision to use the subdivision information was taken. Examples of this are the use of a subdivision for the rental of computing equipment and electronic appliances (Subdivision 53221 and Subdivision 53242) as no data was reported at the class level. Appendix 6 shows in more detail the implication of these two issues for the Mexican core copyright-based industries and the selection made for the present study.

The classification system used in keeping with the US study was the North American Industrial Classification System (NAICS).¹⁰ It is important to point out that NAICS was selected due to the comparability of statistical reporting that it offers for the three signatories to NAFTA. This classification system was designed, agreed and signed by the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, Statistics Canada and

⁹ Siwek, Stephen, *Copyright Industries in the US Economy: The 2004 Report*. Economists Incorporated, prepared for the International Intellectual Property Alliance. ISBN 0-9634708-2-5. 2004, reproduced in WIPO (2006) *National Studies on Assessing the Economic Contribution of the Copyright Industries*.

¹⁰ This study is based on the 2002 revised version of NAICS which incorporates creative and broadcasting activities by Internet.

the Office of Management and Budget of the US, allowing for broad comparability of economic activities among the countries by implementing the collection and grouping of statistical data under a common methodology that not only facilitates comparability but homologizes statistical concepts and category definitions. In addition to this, and in contrast to the systems used before, NAICS includes the “mass media information” sector that was nonexistent prior to 1997 and now contains those industries that create and disseminate copyright protected goods. NAICS also allows for comparison with all the economic activities of the UN’s Uniform International Industrial Classification Revision 3 (CIIU-3), which is the reference system for classifiers of activities in most countries.

2.3. Statistical sources used

In line with the above methodology and NAICS, the present analysis has been produced using the statistical information contained in the Economic Census series report by INEGI which is the official body in charge of statistical information in Mexico. This is published every five years and covers the diverse economic activities performed on the Mexican territory.

The Economic Census reports the economic situation of establishments or businesses on a specific date. This method of data collection makes it unfeasible to derive exact aggregate macroeconomic variables such as gross national product (GNP), government consumption, public investment, etc., as to obtain these variables, economic relationships among households, governments, businesses and foreign trade must be analyzed. These economic relationships are not fully reported in the census with the exception of activities performed by businesses, which provided the only source of information.

The 2004 Economic Census collected basic economic information on all economic activities performed in the country (except those given in Table 2.2) which are grouped in NAICS as follows:

- Agriculture, cattle farming, forestry, fishing and hunting
- Mining
- Supply of electricity, water and gas
- Construction
- Manufacturing
- Wholesale
- Retail
- Transportation, mail and warehousing
- Mass media information
- Financial services and insurance
- Real estate and rental
- Professional, scientific and technical services
- Business support services, waste disposal and other remedial services
- Education
- Health and social security
- Cultural and sports services and other entertainment services
- Temporary accommodation services and the food and drink industry
- Other services except governmental activities
- Governmental activities and those of other international organizations.

The Economic Census 2004 gives information collected on all businesses¹¹ operating during the information collecting period (March 1 to June 30, 2004) and dedicated to non-primary economic activities.

Table 2.2. Economic Activities excluded from the 2004 Economic Census

From sector 11	All activities except fishing (branch 1441) and aquaculture (classes 112522, shrimp farming and 112519, animal aquaculture).
From sector 48-49	All classes 485112, public transport both urban and suburban in public transport of fixed routes; 485311, taxi stand services; 485312, taxi services; 485320, limousine services; crude oil pipeline transportation; and 486990, pipeline transportation of all other products except oil derivatives.
From sector 71	Class 712190, caves, natural parks and other national heritage sites.
From sector 72	Class 722330, food services in mobile units.
From sector 81	Class 813210, Religious associations and organizations; 813220, political associations and organizations; and 814110, households with domestic help.
From sector 93	Class 932110, international organizations; and 932120, diplomatic missions and extraterritorial units.

The 2004 Economic Census coverage on manufacturing activities was performed by door-to-door canvassing at all urban locations and industrial parks but using a representative sample for the rest of the territory.

The level of disaggregation of the census is dictated by the North American Industrial Classification, which splits the economy into 20 sectors, 95 subsectors, 309 branches and, at its most detailed level, 1051 activity classes. For the 2004 Economic Census, 959 classes of a total of 1051 were covered.

It is important to highlight the limitations of the census as regards economic establishments. It only takes into account those businesses that operate in fixed or semi-fixed units. It does not take into account non-permanent business locations, nor business operations carried out in households, where production activities are performed for self-consumption or when services are offered and performed outside the business location.

The decision to rely on public information was made based on the time and scope of the study as well as on the quality of other data collected. Based on this, one of the most relevant recommendations resulting from this study is the need to create a satellite account for the CBI which would enable the systematic reporting of disaggregated data on these industries and generate a larger pool of statistical information.

¹¹In the 2004 Economic Census, business is an economic unit that in one permanent physical location combines actions and resources under the control of one sole owner or entity, dedicated to the production of goods, the whole or part of one or more good, the sale or purchase of goods or services.

As mentioned earlier, the study aims at measuring value added, employment and foreign trade for CBI. In keeping with this, the value added measurement was obtained using the data reported for the census gross value added variable of the Economic Census produced by INEGI, which provided the most recent information available at the time of the study. The use of this variable is consistent with the direct approach included in section 6.4.4.1 of the WIPO Guide.¹² In order to clarify the scope of the value added measurement, readers should be aware that the total gross value added given in the census is defined as the value of the production added during the work process, by the creative and transformative activity of the personnel, the capital and the organization (production factors) exerted on the materials consumed in the execution of the economic activity.

The census gross value added (CGVA) is the result of deducting intermediate consumption from total gross production; it is referred to as “gross” as fixed capital consumption has not yet been deducted. CGVA is reported at producer prices, which is equal to the price charged by the producer less value added tax (VAT) charged to the consumer. The census might report negative CGVA in the case of non-profit-making activities (cultural activities), which do not usually generate income, obtaining their resources from donations, subsidies or other grants. This produces negative CGVA reporting.

As regards business units within the public sector, their data is generally excluded as they differ greatly in nature from those of the private sector regarding their aims and reporting system which makes it extremely difficult to provide information as required by the Economic Census.

In terms of employment, the statistical data used includes all personnel employed by the business and by other businesses that provided services to the former and took up at least one third of the working day. Staff included in this definition can be part-time, full-time, project-based or voluntary. This variable does not include the informal sector of the economy nor household employment for self-consumption as all employment has to be reported by an economic establishment as defined above.

As a consequence, the information derived from the census is different from that provided by the national accounting system, although they complement each other in clarifying the economic situation.

In all cases, the categories and classes used by sector correspond to the WIPO methodology in *The Guide on Surveying the Economic Contribution of the Copyright-Based Industries* (see Appendix 5 List of classes and sub-classes by sector).

Finally, as regards the foreign trade estimation of CBI, the World Trade Atlas database produced by the National Bank for Foreign Trade (BANCOMEXT) was used and categorization was made based on tariff item numbers in the Atlas database. This database, however, given its structure and aggregation, presented limitations in the itemization of some tariff items in relation to the categories of each of the sectors being analyzed. For example, in estimates of non-dedicated foreign trade industries, the variable was taken as the difference between total exports and imports of core, interdependent and partial industries and total exports and imports, with the exception of the oil industry.

¹² See Page 48 of *The Guide on Surveying the Economic Contribution of the Copyright-Based Industries*.

Finally, to understand the trend in CBI performance for the three estimated variables, the study analyzes the industries' performance for the years 1998 and 2003. That a historic comparison could be made was of extreme importance in order to document how the industries performed during the period 1998-2003 and how we can expect them to evolve, subject to innovation and stronger rule of law in the future.

However, certain comparability limitations among data from the two periods analyzed must be mentioned. On the one hand, there are differences in classification between the 2002 and 1997 Mexico NAICS which are the result of a permanent revision and updating process. The second factor relates to the operative implementation of the system. The classification process involves the definition of classes that are very similar in nature and generate confusion at the moment of assigning a code, thus affecting census results and historic comparability. Although these limitations do not affect the overall trends of the industries during the 1998–2003 time period, the reader must bear in mind that an exact comparison between the aggregates is not feasible.

2.4. Determination of copyright factors

In terms of aggregation of the different sectors, it is worth mentioning that the exercise of measuring the economic contribution of the copyright-based industries must take into account the fact that not all participating industries per segment (core, interdependent, partial and non-dedicated) can fully attribute their contribution to the economy to copyright. As reported in the WIPO Guide: "In analyzing any copyright-based industry one faces the problem of how to eliminate elements that cannot be fully attributed to copyright."¹³ In view of this, the Mexican study has used a weighting system that seeks to establish the proportion of the copyright-based component of an industry. In the case of the core copyright-based industries the contribution can easily be given a copyright factor of 1, but in the other industries the factors must acknowledge the lesser contribution of copyright to the overall result. A more detailed study would establish these factors according to the production process of each industry and the participation of copyright in it. In the absence of information related to the specific process and participation in the production chains of these industries in Mexico, an in-depth analysis is beyond our remit. We have therefore decided to use a simple average of two existing weighting schemes: the US and the Hungarian¹⁴ models.

The use of these models is based on the following reasoning: on the one hand, the set of weights from the US is relevant to the Mexican case; this is because of the common use of the information classification systems resulting from NAICS and the assumption that both countries share similar industrial structures given the close linkage of their economies. On the other hand, the use of the Hungarian model is based on the fact that this is a mid-income level country with similar development levels to Mexico; thus, it may be assumed that both industrial structures share similar characteristics.

¹³ *ibid*, page 57.

¹⁴ Penyigey, Krisztina & Péter Mukácsi. *The Contribution of Copyright-based Industries in Hungary*. Hungarian Patent Office. November 2005. Reproduced in WIPO (2006) *National Studies on Assessing the Economic Contribution of the Copyright Industries*.

As a result, a simple average of the two weighting sets per industry provides an adequate estimate for Mexico. It is recommended that future studies improve on this by making one of their aims the estimation of a country-specific weighting system that reflects the Mexican industrial structure and the contribution made by copyright in each case with greater accuracy.

2.5. Study limitations

Finally, it is important to mention the specific limitations encountered by the study in following the WIPO methodology.

On the one hand, the study has met limitations based on the availability of recent statistical information. In the case of other country studies available, the measurement of the economic contribution of copyright-based industries was carried out using gross domestic product (GDP). In the Mexican case, measuring the economic contribution of the total gross value added estimated for copyright-based industries as a ratio of GDP would result in an underestimation of their participation as it would exclude government participation in the different sectors that comprise CBI, as well as economic activities performed by households, independents and those in the informal sector of the economy. This is in line with other studies such as that prepared for Canada.¹⁵

In addition to the above, and with the aim of preserving the highest economic rigor regarding the measurement of the contribution of copyright-based industries, it was decided to focus the analysis on the formal sector of the Mexican economy using only the official indicators available. If we consider that this economy has maintained a high degree of informality to date, the decision to measure only the formal sector of the economy – especially in a sector whose employment structure, unlike other sectors, has a high number of independent workers and informal productive structures – entails an underestimation of the economic contribution of the copyright industries to the country's economy. However, given the lack of a generally-accepted methodology in the area of informal cultural sector measurement, we agreed that the study would not take account of the estimates for this segment.

However and bearing in mind the limitations stated, an estimation of its contribution has been made for comparison purposes by incorporating value added into total CBI VAT at 15 percent, this being one of the elements present in GDP but not in the estimate of total value added. This means that when comparing the Mexican findings with those for other countries as regards the economic contribution, we should be aware that there will be a degree of underestimation of the contribution of these industries to the total economy with the estimated contributions serving as a proxy for a more rigorous estimate which is impossible with the available data.

Finally, real term figures for all CBI categories have been calculated applying the same general GDP deflator. As pointed out by Dr. Zofio we are aware that a better approach in terms of accuracy would be to apply differentiated deflators; however this would have required estimating deflators and that goes beyond the

¹⁵ *The Economic Contribution of Copyright Industries to the Canadian Economy* prepared for Canadian Heritage, Wall Communications, March 31, 2004, page 66, reproduced in WIPO (2006) *National Studies on Assessing the Economic Contribution of the Copyright Industries*.

scope of this study. Therefore, the reader must be aware that figures have been produced to facilitate the analysis of general trends.

In summary, we believe that in spite of the limitations both statistical and structural faced in performing the measurements, the present study adequately reflects the economic importance of the copyright-based industries in Mexico and serves to highlight the development trends in each sector. The following chapters will aim at presenting general and specific findings that mark the economic behavior of the CBI and allow us to generate a series of recommendations related to the challenges and opportunities of the industries and their future performance.

Chapter III. Copyright Protection in Mexico

Creative capacity is, to a greater or lesser degree, inherent in humans and any creator of an intellectual work of whatever type is considered an author. The protection of an author and his/her work is constituted by a series of rules aimed at promoting and offering an incentive to creativity by acknowledging ownership of rights and ensuring economic benefits. In consequence, copyright protection offers conditions that are necessary for the promotion of investment in the areas of creativity and innovation.

The purpose of copyright is the protection of literary and artistic works by way of recognizing an author and creator's broad spectrum of exclusive and non-exclusive rights.

Copyright protection reflects two types of interests generally referred to as economic rights and moral rights.

The creators' economic rights enable them to receive an income from their creations. Copyright grants authors the exclusive right to authorize others to use their work under the terms agreed upon by the parties and to take legal action in case of unauthorized use. Economic rights are acknowledged by copyright legislation worldwide and they usually include all relevant commercial activities, from physical copying of books, staging of plays and other forms of choreography, to reproduction of works on the Internet.

Furthermore, creators have another non-pecuniary interest in their works, which is that of deciding whether they can be released in the public domain, to demand acknowledgment of authorship and to object to any use that may be perceived as prejudicial to the integrity of the work. These prerogatives are known as the author's moral rights.

It is universally accepted that the protection of copyright flows automatically from the act of creating and does not require any formal deed. This principle is safeguarded by a variety of international conventions signed by most countries. The most important conventions are:

- 1886: The Berne Convention for the Protection of Literary and Artistic Works (revised in 1971)
- 1952: The Universal Copyright Convention (UCC) (revised in 1971)
- 1961: The International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (known as the Rome Convention)
- 1971: The Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms
- 1994: The Agreement Between the World Intellectual Property Organization and the World Trade Organization
- 1995: The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)

Today, most countries have signed up to one or more of these treaties under which creators are ensured the respect of their rights in Member States and minimum homogeneous protection standards are offered to them.

Protection of copyright and neighboring rights is essential for the promotion of individual creativity, the development of cultural industries and the promotion of cultural diversity. This legal protection provides creators with legal security regarding the use of their works by third parties and reduces the risk of unauthorized copying or piracy. It is clear that piracy or non-observance of copyright legislation destroys creation and incentives for distribution of cultural products.

In the case of Mexico, copyright law was incorporated in the 1824 Constitution, which set forth the power of Congress to “promote illustration, ensuring exclusive rights for a limited period of time to authors regarding their respective works.”¹⁶

The Literary Property Decree (*Decreto sobre Propiedad Literaria*) was published in 1846. This legal instrument included 18 Articles and integrated copyright into the Ownership Right. This Decree was incorporated to the Civil Code on August 8, 1870 and was slightly modified in the 1884 Civil Code.¹⁷

The 1917 Constitution incorporated copyright into Article 28 and the 1928 Civil Code regulated matters concerning authorship discipline in three chapters (Articles 1181 to 1280).

As a participant in the Inter-American Expert Conference for the Protection of Copyright, Pan-American Union, held in June 1946, Mexico signed the Inter-American Convention on Copyright in Literary, Scientific and Artistic Works.

With the purpose of making the Mexican Copyright Legislation compatible with the commitments under the above-mentioned Convention, the first Copyright Act was issued on December 31, 1947 and published in the Federation’s Official Gazette on January 14, 1948. This Federal Act granted the creator the rights of publication of his/her work through any means, representation for profit, transformation, communication, translation and partial or total reproduction in any form; it extended copyright protection twenty years after the death of the creator and for the first time considered certain copyright violations to be offenses.

In addition to this, the Copyright Act of 1947 owes its importance to the introduction of the protection of works from the moment of their creation, whether they are registered or not. The legal change allowed Mexican law to meet international copyright standards.

On December 20, 1955, Mexico adhered to the Convention for the Protection of Literary and Artistic Works.

On December 29, 1956, a second Act was issued, under which the Directorate of Copyright was created, and in 1957, Mexico became a co-founder of the Universal Copyright Convention. The new law set out a more precise definition of performers’ rights by establishing their right to receive economic remuneration for the broadcasting and communication of their works. The law also became the first regulator of authorial societies.

On December 21, 1963, a series of reforms and additions to the Act were made defining moral and economic rights; guaranteeing access to cultural goods; regulating the right to public performances and setting specific rules for the operation and administration of authors’ societies while widening the catalogue of offenses derived from copyright violation.

¹⁶ 1824 Constitution, Title III, Section Five of the Legislature, Article 50.

¹⁷ The section on Mexico’s copyright background has been taken from information produced by the *Instituto Nacional del Derecho de Autor (INDAUTOR)*.

On December 20, 1968, Mexico signed the Berne Convention for the Protection of Literary and Artistic Works and, in 1974, the Paris Act.

On January 1982, further amendments and additions to the law were made, including resolutions on works and performances used for marketing purposes and widening protection terms for creators, performers and musicians.

In 1991, the catalogue of creative activities protected by copyright was augmented by including photographic, cinematographic, audiovisual, radio and television works and software. As regards the latter, limitation on backup copies was included. The reforms also included rights for phonogram producers and the catalogue of offenses was again revised and enlarged. Penalties were increased and administrative issues clarified.

Further amendments and additions were made in December 1993, giving a longer term of protection of up to 75 years after the creator's demise and abandoning the regime of public domain, allowing for the free use and communication of works that, because of the time elapsed, were no longer under copyright protection.

Finally, on December 29, 1996, the new Copyright Act was issued and became effective as of March 24, 1997. It was conceived as a need to modernize the legal framework in order to respond to technological development as well as to incorporate the signed international commitments into Mexican legislation (such as NAFTA). The Act led to the setting up of the *Instituto Nacional del Derecho de Autor* (INDAUTOR/National Copyright Institute) as a separate body under the Ministry of Education. This Act foresaw an extension of the validity of economic rights from 50 to 75 years effective from the author's death or the death of the last co-author.

On July 23, 2003, the decree to amend the Copyright Act (*Decreto de Reformas y Adiciones a la Ley Federal del Derecho de Autor*) was published. This reform was aimed at strengthening the powers of collection of copyright collecting societies and the management of public communication rights.

The reform included the recognition of a compulsory right in favor of the author or his/her heir to benefit economically from the income generated by public communication of his/her work. With this action, the handing over of economic rights in favor of a third party was neutralized.

In addition, coverage was extended by establishing the protection of copyright to "any media known or to be known".

The legal effects of the author's economic rights were extended to a 100-year term after his/her death. Thus, Mexico became the country with the longest protection for creators in Latin-America. In the case of musicians or performers, this period was extended from 50 to 75 years from the first recording of a performance on a phonogram or of an unrecorded work or the first radio, television or any other media broadcast.

Finally, on September 14, 2005 the Decree by which reforms and additions to the provisions of the Federal Copyright Act were carried out was published in the Federal Official Gazette. The following amendments are relevant:

1. A constitutional principle stating that acquired international commitments are of a binding nature and overrule any counterargument stated in the LFDA (Federal Copyright Act).
2. A new provision for copyright on photographic works, payment of royalties and payment of property damage and damage to reputation is introduced.
3. Confirmation that the right to public distribution is of an exclusive nature in favor of phonogram producers.
4. Several aspects related to the exercise of follow-up or participation right (*droit de suite*).

As mentioned, according to Mexican legislation, the protection and promotion of intellectual property is basically managed by The Mexican Institute of Industrial Property (IMPI) and INDAUTOR.

IMPI is a public decentralised body of the Ministry of the Economy, charged with providing technical and professional support to the administrative authority and providing guidance and advisory services to the private sector for industrial property in Mexico. It also deals with copyright infringement as it relates to economic rights. This division on moral and economic rights is seen by some legal experts as an unnecessary administrative complexity of intellectual property legislation.

The National Copyright Institute (INDAUTOR) is responsible for the promotion and protection of copyright, the promotion of the creation of literary and artistic works, the public copyright registry, and the investigation of copyright infringement. It is an administrative body and its functions as regards enforcement are of a civil nature.

Although recently set up, it has already managed to develop highly efficient processes for both registry and complaints. It has been awarded several ISO 9000 recognitions and its organisational culture is based on active training of its employees to enable them to develop a strong knowledge base on a very new subject for Mexico.

In the matter of intellectual property rights' enforcement, responsibility is shared by another institution, the *Procuraduría General de la República* (PGR), the federal body in charge of investigating crime. They have formed a special unit *Unidad Especializada en Investigación de Delitos contra los Derechos de Autor y la Propiedad Industrial* following a system of specialisation and an attempt to answer specific reports on articles 424 *bis* and 424 III in Matters of Copyright of the Federal Penal Code and Articles 223 and 223 *bis* of the Federal Law of Industrial Property on crimes related to trademarks.

The anti-piracy strategy implemented by the Fox administration (2000-2006) is supported by an inter-institutional body that includes the participation of the different ministries (SE, SHCP, PGR, SEP, SSP, SFP, PROFECO) affected by the phenomenon as well as the private sector. The inter-institutional body is divided into three working committees: legislation, inspection and training.

To promote greater awareness of the piracy problem and its impact on the economy among the population, a fourth committee was created to work on communication and awareness-raising. At this stage it is not clear what the inter-institutional body has achieved nor what the Calderón administration will set as its priorities in this matter.

As mentioned, Mexico has constantly revised its copyright legislation since the early twentieth century and has been able to move towards international standards through the signing of the different copyright and intellectual protection treaties. At present it has one of the most developed copyright legal frameworks in the world.

However, the everyday reality of the Mexican legal system is the weakness of the rule of law, not only as regards intellectual property but as a countrywide factor that reduces incentives for investment as well as the possibility for effectively combating illegal activities.

In the case of copyright protection this is more serious, as the subject matter is still not widely known by the general public and creators have very little power to enforce their rights.

In order for Mexico to provide a good environment that fosters creation and promotes investment within copyright-based industries, it needs more than good copyright legislation.

On the one hand, there should be a proper law enforcement system that guarantees equity for all parties and the effective protection of rights.

On the other, greater awareness of the law, its implications and the reasoning behind it is necessary. The population in general has little knowledge of the legal framework and scope for copyright protection. At present, consumers and distributors of pirated goods justify their actions by protesting against multinationals, claiming reduced purchasing power and complaining about the gross social inequities in our economic system.

This lack of awareness of the law also applies to sectors which, as a result of their activities, obtain economic benefit from products and services protected by copyright. This also means the judiciary in general which lacks the expertise and manpower to deal with copyright violations. All of these factors make compliance, payment of rights, complaints and legal processes expensive and ineffective.

Mexico can and should keep reforming its copyright protection legislation but this will not be possible without a strong program to strengthen the rule of law and an effective scheme against piracy at all levels.

Chapter IV. Estimate of the Economic Contribution of Copyright-Based Industries in Mexico

As mentioned earlier, copyright-based industries (CBI) in Mexico according to the WIPO classification comprise a series of sectors and activities divided into four groups: core, interdependent, partial, and non-dedicated.

This chapter addresses the statistical estimation of the contribution of these industries to the Mexican economy through the use of three main economic indicators: value added, employment and foreign trade for the two-year reference period, 1998 and 2003. The initial sections focus on the measurement of the economic contribution of each of the variables as regards all CBI; the following sections look into the individual economic contribution of each of the groups (core, partial, interdependent and non-dedicated), while the last section compares the Mexican findings with those of the three other countries: Canada, Hungary and the US.

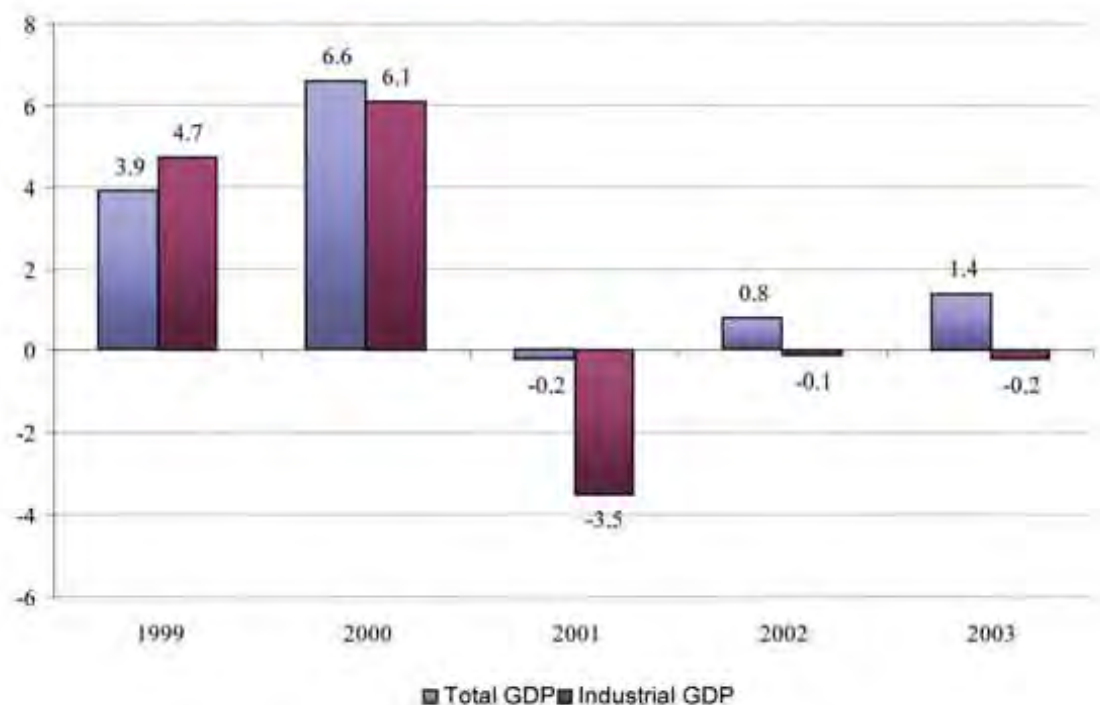
Finally, as has already been mentioned, the statistical information used for the estimation of the variables is taken from the 1999 and 2004 Economic Census produced by the *Instituto Nacional de Estadística, Geografía e Informática* (INEGI) (the official statistical body in Mexico) and the World Atlas published by *Banco Nacional de Comercio Exterior* (The National Bank of Foreign Trade) (BANCOMEXT). The international comparisons make use of the findings reported in the relevant country studies.

4.0. General economic outlook

In order for the reader to more clearly understand Mexican copyright-based industries and their performance during the 1998-2003 period, a general overview on how the economy was performing during the same period is indispensable. First, the period being studied marked the end of one administration (the Zedillo presidency 1994-2000) and the first three years of the Fox administration (2000-2006). The start of the latter was marked by a reduction in the GDP growth rate, especially at the industry level. GDP grew at an average rate of 2.5 percent annually, while industrial GDP had an average annual 1.4 percent growth rate with negative growth rates for the 2001-2003 period.

This slowing of the economy affected the CBI as well and can, in general, help explain the poorer performance for 2003 as compared to 1998 estimates, in addition to other factors that affected them directly.

Chart 4.1. Total and industrial real GDP
(Annual growth rates)



Source: INEGI

4.1. Value added of copyright-based industries in Mexico

Total value added for copyright-based industries (CBI) in Mexico for the year 2003 amounted to 259,071,480 pesos, representing 8.07 percent of the total census value added. For the year 1998, and according to Table 4.1, the CBI reported a value added of 157,485,574 pesos (9.58 percent of total census value added). This implies that for the period 1998-2003, both in nominal and real terms (See Table 4.2) total copyright-based industry value added reported an absolute real growth of 3.69 percent, which, if making an average annual estimate (0.73 percent annual growth) meant that the CBI grew at a slower rate than the economy during the period. This can be explained by a series of factors listed below on which the study will report in more detail later:

- Weak enforcement of the rule of law
- Growth in piracy rates
- Government policies that favored the growth of the informal sector
- Progressive loss of a young industrial sector due to NAFTA and the opening up of the economy
- Public policies that reduced support to culture and its linked industries
- Fall in disposable income

This slower growth, versus more dynamic performances in other sectors of the Mexican economy, generated a reduction in the contribution of the CBI to total value added. We find a fall in participation from 9.58 percent in 1998 to 8.07 percent in 2003.

When comparing the contribution of copyright-based industries to GDP, we find this same effect in the participation of a CBI value added proxy (value added + VAT)¹⁸ to GDP. For 1998, the estimated contribution of the CBI to GDP was 5.15 percent, which by 2003 had fallen to 4.77 percent (see Table 4.3).

Table 4.1. CBI Total and Per Industry: Value Added and Employment 1998 - 2003 Comparative

COPYRIGHT-BASED INDUSTRIES	Number Employed (Units)		Value Added (Thousands of Pesos)	
	1998	2003	1998	2003
CORE	376,210	554,218	40,609,231	84,120,840
INTERDEPENDENT	526,229	592,549	74,067,178	91,634,879
PARTIAL	372,544	410,955	27,561,859	46,481,271
NON-DEDICATED	169,649	229,741	15,247,305	36,834,491
TOTAL CBI	1,444,632	1,787,464	157,485,574	259,071,480
Total Industrial Census	13,827,025	16,239,536	1,643,397,302	3,208,379,859
CBI Contribution with regard to the total	10.45%	11.01%	9.58%	8.07%

Source: Estimates based on INEGI data

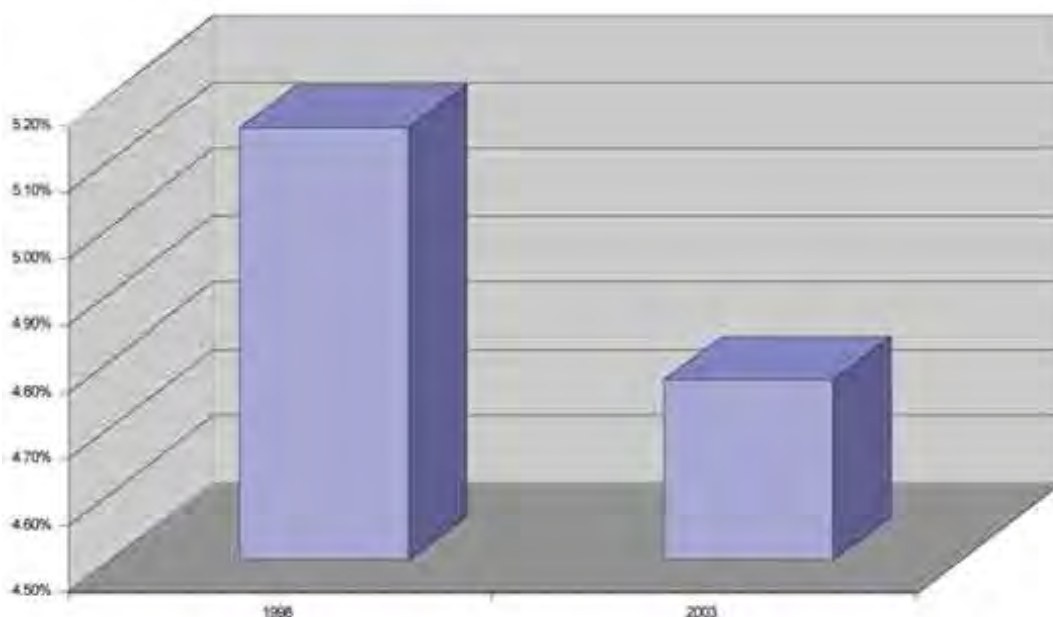
Table 4.2. CBI: 1998 - 2003 Real Value Added Comparative
Thousands of Pesos in Real Terms 1998 = 100

CBI GROUPS	1998	2003
CORE	40,609,231	53,026,948
INTERDEPENDENT	74,067,178	57,763,546
PARTIAL	27,561,859	29,300,230
NON-DEDICATED	15,247,305	23,219,224
CBI TOTAL	157,485,574	163,309,948
CENSUS TOTAL	1,643,397,302	2,022,454,758
% CBI / TOTAL INDUSTRIAL CENSUS	9.58%	8.07%
% CBI/ GDP	5.15%	4.77%

Source: Estimates based on INEGI data

¹⁸See Chapter II, section 2.3 for more details on methodology and comparison estimates.

Chart 4.2. Contribution of Copyright-Based Industries to GDP



Source: Estimates based on INEGI data

In terms of the contribution of value added per group of industries, we find that the share of the core industries with respect to the total increased, as well as that for the non-dedicated segment. Simultaneously, the interdependent and partial industries' shares have decreased (see Table 4.3).

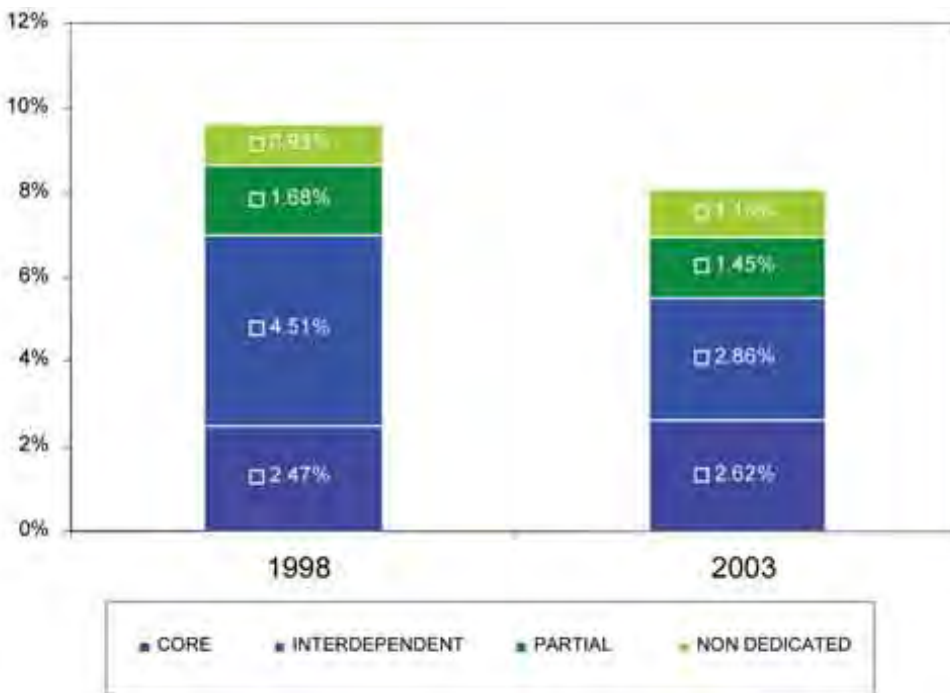
Table 4.3. Contribution of the CBI to Total

Share by Group of Industries with regard to Total Census	Employment		Value added	
	Number Employed		Thousands of pesos 1998=100 Real Terms	
	1998	2003	1998	2003
CBI TOTAL	10.45%	11.01%	9.58%	8.07%
CORE	2.72%	3.41%	2.47%	2.62%
INTERDEPENDENT	3.81%	3.65%	4.51%	2.86%
PARTIALS	2.69%	2.53%	1.68%	1.45%
NON-DEDICATED INDUSTRIES	1.23%	1.41%	0.93%	1.15%

Source: Study estimates based on INEGI data

As regards structural shares, we find especially relevant the decrease shown by the interdependent group from 4.51 percent in 1998 to 2.86 percent in 2003 (see Chart 4.3).

Chart 4.3. CBI: Participation in Total Census Value Added



Source: Study estimate based on INEGI data

4.2. Employment in copyright-based industries in Mexico

In terms of employment, the CBI registered an increase in the number employed during the study period as reflected in Table 4.4.

Table 4.4. Employment 1998 - 2003

	Number Employed (Units)	
	1998	2003
CORE	376,210	554,218
INTERDEPENDENT	526,229	592,549
PARTIALS	372,544	410,955
NON-DEDICATED	169,649	229,741
TOTAL CBI	1,444,632	1,787,464
Total Industrial Census	13,827,025	16,239,536
CBI Contribution with regard to the Total	10.45%	11.01%

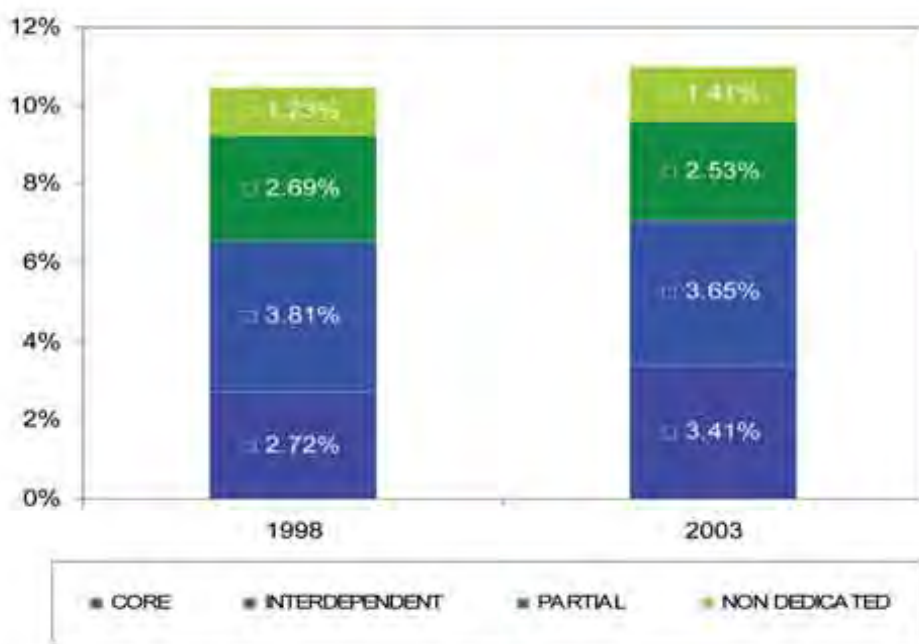
Source: Study estimate based on INEGI data

The CBI reported a level of employment of 1,444,632 employees (10.45 percent of the total workforce) for 1998. Five years later, the 2003 data reported 1,787,464 employees, representing 11.01 percent of the total workforce.

Therefore for the period 1998-2003, employment not only grew in number of employees (24 percent), but also showed an increase in share of total employment from 10.45 percent to 11.01 percent. This reflects the importance of the CBI as employment generators during what was a particularly complex period for employment creation in the Mexican economy as a whole.

As shown in Chart 4.4, the employment share of the CBI grew from 1998 to 2003, reflecting the importance of these industries as employment generators, particularly in the case of the core group. These findings are of special relevance to an economy such as Mexico which requires the creation of at least one million jobs annually to absorb the growing labor force. Clearly, the CBI seem to provide one of the answers.

Chart 4.4. Copyright-Based Industries: Employment Contribution



Source: Study estimate based on INEGI data

4.3. Foreign trade of copyright-based industries in Mexico

In terms of foreign trade, we find that both imports and exports in these industries grew during the period 1998 to 2003 by 26 and 28 percent respectively, producing a 39 percent global increase in trade surplus (see Table 4.5).

However, and as shown in greater detail in the following section, the core industry component reflects a growth in the trade deficit as a result of a significant drop in exports by these industries. Likewise, partial and non-dedicated industries reveal trade deficits for the year 2003. The only component of the CBI with a trade surplus was the one linked to the interdependent industries.

These findings seem to indicate a growth in domestic consumption of copyright-based goods which is not being satisfied by local production. In this sense, there seems to be an economic incentive to increase local production with greater investment in these industries as long as local products can compete in terms of cost with imported goods.

Table 4.5. Copyright-Based Industries:1998 -2003 Foreign Trade Comparative

Copyright-Based Industries	Imports		Exports		Trade Balance	
	Millions of US\$		Millions of US\$		Millions of US\$	
	1998	2003	1998	2003	1998	2003
CORE	459	546	299	220	-160	-326
INTERDEPENDENT	7,227	7,970	11,859	15,156	4,632	7,186
PARTIAL	613	891	756	679	143	-212
NON-DEDICATED	9,927	13,666	8,213	11,051	-1,715	-2,616
CBI TOTAL	18,226	23,073	21,127	27,105	2,900	4,032

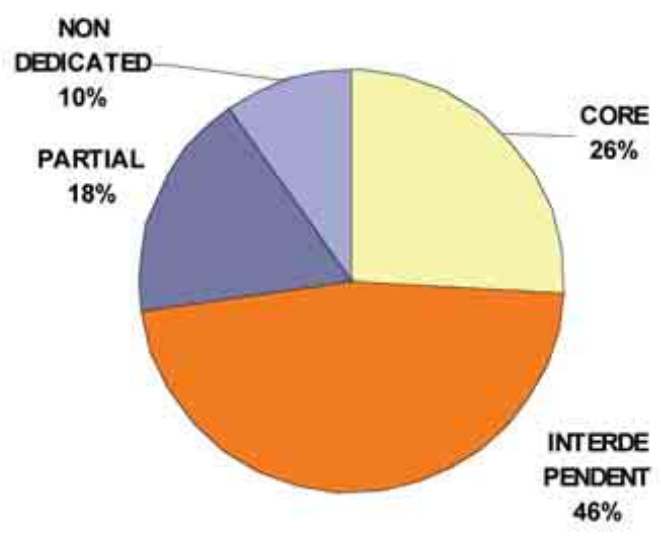
Source: Estimate based on BANCOMEXT data

4.4. Contribution of copyright-based industries per industrial group

In structural terms, the contribution of the value added generated by the interdependent sector, 46 percent in 1998 and 38 percent in 2003, stands out and is followed by the contribution of the core industries (26 percent and 32 percent). In addition, the growth of contributions from core industries resulting from a decline in the contribution of interdependent industries is worth mentioning.

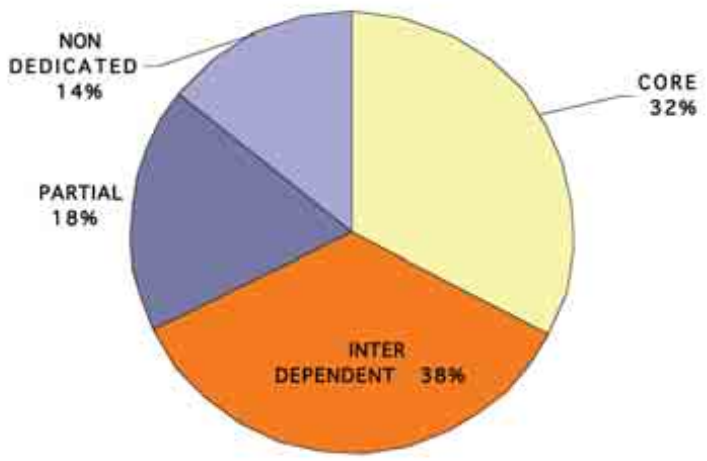


Chart 4.5. Value Added of Copyright-Based Industries:
Contribution per Industrial Group, 1998



Source: Estimates based on INEGI data

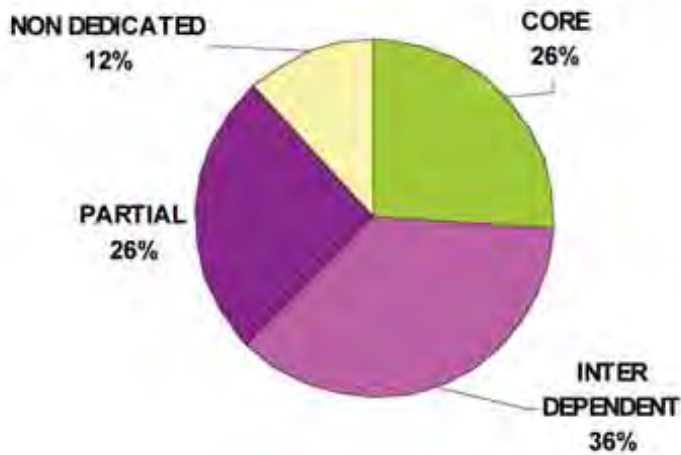
Chart 4.6. Value Added of Copyright-Based Industries:
Contribution per Industrial Group, 2003



Source: Estimates based on INEGI data

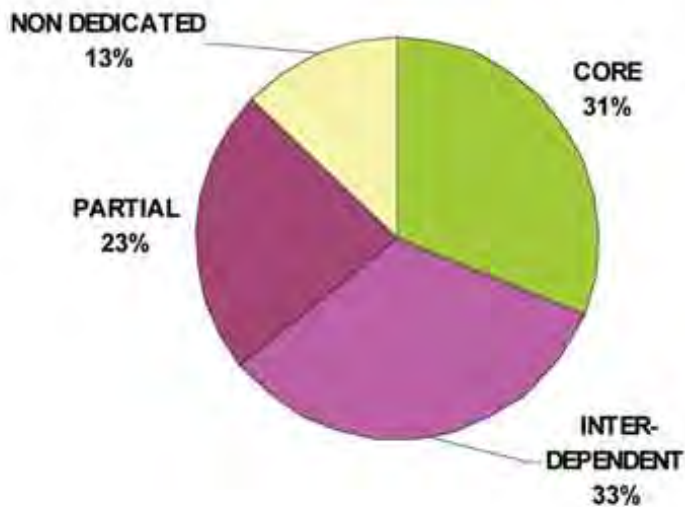
As regards employment, the same trend was maintained, with the highest contribution from interdependent industries within all the CBI (36 percent and 33 percent, respectively) and a rising tendency in core industries, from 26 percent in 1998 to 31 percent in 2003.

**Chart 4.7. Employment in the Copyright-Based Industries 1998-2003:
Share per Industrial Group**



Source: Estimates based on INEGI data

**Chart 4.8. Employment in the Copyright-Based Industries
Share per Industrial Group, 2003**



Source: Estimates based on INEGI data

Finally, if we analyze the composition of the CBI in terms of core and non-core industries, we discover that it is the latter component which makes the highest contribution, although the core component shows a growing contribution between 1998 and 2003. The contribution of value added produced by core industries to the CBI total value increased from 25.7 percent in 1998 to 32.4 percent in 2003 and for employment, from 26 percent in 1998 to 31 percent in 2003. This indicates the growing importance of core copyright industries to the Mexican economy, due to the increasing importance of these industries globally and this should be encouraged by strengthening them.

In summary, we conclude that despite the fact that the CBI have reduced their contribution to the total Mexican economy during the reference period, within the CBI the core industry component has gained in importance. In addition, the results show that the CBI are important generators of employment, which would reinforce the value of investment in the sector in terms of human resources as well as material resources in a country where employment generation is one of the fundamental challenges faced.

In order to obtain more information on the performance and economic structure of these industries within the Mexican economy the following sections offer an analysis of the economic contributions of the CBI per group.

4.5. Economic contribution of core copyright-based industries

As shown in Table 4.6, during the period 1998 to 2003, the economic evolution of core copyright-based industries gave the following results:

- The total number of economic establishments in these industries increased 6 percent, from 91,945 in 1998 to 97,109 in 2003.
- Total employment rose 47.3 percent, with a total of 178,000 new jobs generated between 1998 and 2003 representing an annual average growth of 9.5 percent. Nevertheless, total income, measured in constant Mexican pesos in 1998, reported a fall of 11.1 percent, which indicates an important deterioration in remuneration for people working in the sector.
- In this period, value added generated by these industries grew 30.6 percent in real terms.
- Lastly, the investment indicators reveal an increase of more moderate dimensions compared to that of value added and employment: fixed capital formation decreased by 14.8 percent during the same period, while fixed assets increased 3.6 percent in real terms.

Table 4.6. Core Copyright-Based Industries: 1998 - 2003
Number of Units and Thousands of 1998 Constant Pesos = 100

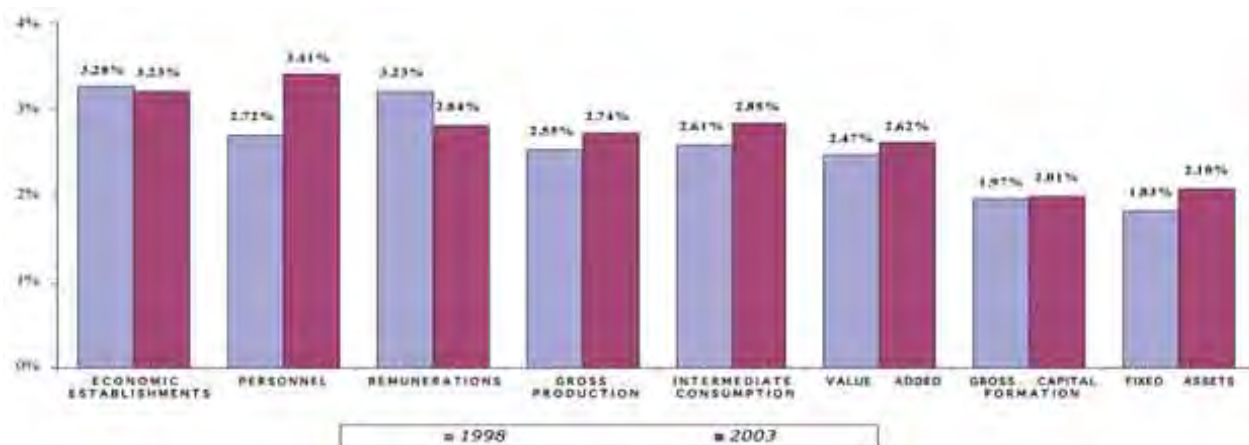
Economic Indicators	1998	2003	Real % Growth 1998-2003
Economic establishments (Number of units)	91,945	97,109	5.6
Employed Personnel (Number of people)	376,210	554,218	47.3
Remunerations (Thousands of pesos)	16,862,829	14,997,293	-11.1
Gross production (Thousands of pesos)	94,743,984	108,789,308	14.8
Value added (Thousands of pesos)	40,609,231	53,039,622	30.6
Gross capital formation (Thousands of pesos)	3,995,919	3,406,200	-14.8
Fixed assets (Thousands of pesos)	46,335,273	48,022,637	3.6

Source: INEGI

If we analyze the above findings we can reach relevant conclusions regarding core copyright industries (see Chart 4.9). On the one hand, the number of premises and personnel employed represent more than 3 percent of the national total in the two-year reference period,¹⁹ where growth in the contribution of employed personnel went from 2.72 percent to 3.41 percent in the period 1998–2003. In terms of value added, the shares were 2.47 percent and 2.6 percent respectively, which also show a positive trend for core industries in the reference period.

On the other hand, the fall in the income variable, from 3.2 percent in 1998 to 2.8 percent in 2003, reflects an important deterioration in remuneration to employees, which counteracts the increase in employment of these industries in terms of quality.

Chart 4.9. Contribution of Core Copyright-Based Industries to the Economy
Percentage of Total



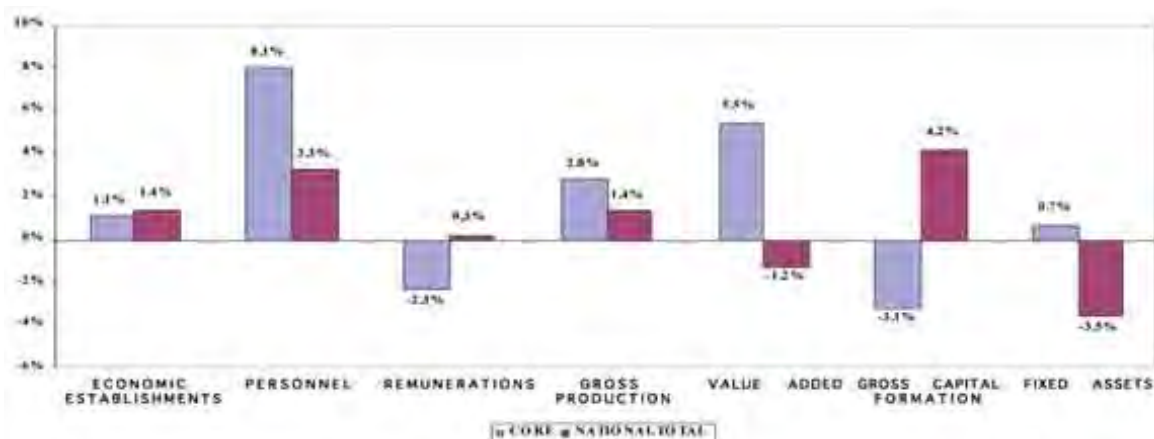
Source: INEGI

¹⁹The totals include industry, commerce and services; the primary sector is excluded (agriculture, livestock, forestry, fishery and mining). See Chapter II for details of sectors included.

As shown in Chart 4.10, the performance indicators of the core industries during the period 1998 to 2003 were better than those for the national level, particularly regarding the number of employees (which in core industries increased by an average of 8.1 percent annually compared to 3.3 percent for the economy as a whole), gross production (2.8 percent and 1.4 percent in real terms, respectively), value added (5.5 percent and -1.2 percent) and value of assets (0.7 percent and 3.5 percent).

In contrast, importance should be given to the lowering of remuneration corresponding to core industries in the reference period, decreasing by an average of 2.3 percent annually in real terms, while capital formation increased 0.3 percent and 4.2 percent in comparison to the national level. This reflects a fall in human and fixed capital investment that will probably contribute negatively to the growth of the core industries in the next few years.

Chart 4.10. Economic Indicators: Core Industries vs National Total 1998-2003 (Annual percentage variations in real terms)



Source: INEGI

Regarding the contribution of value added of the core industries to total value added for 2003, we find that the former made a 2.62 percent contribution. In terms of employment, their contribution is 3.41 percent of the total recorded employment.

**Table 4.7. Value Added, 2003
Thousand Pesos 1998 = 100**

Core Industries	Total CAV Mexico	Contribution
53,026,948	2,022,454,758	2.62%
Total CBI (core + non core)	Total CAV Mexico	Contribution
163,309,948	2,022,454,758	8.07%

Source: Study estimates based on INEGI data

**Table 4.8. Employment 2003
Number Employed**

Core Industries	Total CAV* Mexico	Contribution
554,218	16,239,536	3.41%
Total CBI (core + non-core)	Total CAV Mexico	Contribution
1,787,464	16,239,536	11.01%

**CAV: Industrial Census Value added*

Source: Study estimates based on INEGI data

4.6. Structure of core industries

In relation to the sectorial structure of the copyright-based core industries, the highest relative contribution was made by press and literature. In 2003 it represented 36 percent of all personnel employed in the core group, 32 percent of production and 33 percent of value added. This contribution was maintained despite the fact that in the period 1998 to 2003 there was a drastic reduction from a level of nearly 40 percent in the three indicators for 1998.

Next in importance is radio and television, which, although employment levels are lower when compared to other sectors (9.8 percent of the total), in 2003 it generated 24 percent of the total production and 28 percent of value added. This sector registered a substantial increase in its contribution as a result of the emergence of new products and services, such as cable television and DTH (which were not included in the 1998 Census).

During the period 1998 to 2003, the software and database sector decreased in all its indicators and the film and video sector reported a fall in the generation of value added.

**Table 4.9. Sectorial Structure of Copyright-Based Core Industries:
Percentage Contribution to Total**

Industry	Employees		Value added		Imports		Exports	
	1998	2003	1998	2003	1998	2003	1998	2003
Advertising	10.6	12	10.4	9.6	-	-	-	-
Copyright Collecting Societies ²⁰	0	0.4	0	0				
Graphic and Visual Arts	5.3	4.7	3.1	3.2	5.8	1.9	4.8	4.5
Motion Picture and Video	7.9	8.2	6.8	4.4	1.3	1.4	1.5	4.3
Music, Theater and Opera	11	11.2	15.4	10	0.1	0.2	0	0
Photography	5.8	4.9	2.6	1.7	4.6	4.7	3	7.5
Press and Literature	48.2	35.8	45.5	32.8	88.2	91.8	90.7	83.6
Radio and Television	1.8	9.8	2	28.4	-	-	-	-
Software and Databases	9.3	13	14.4	9.8	-	-	-	-
Total	100	100	100	100	100	100	100	100

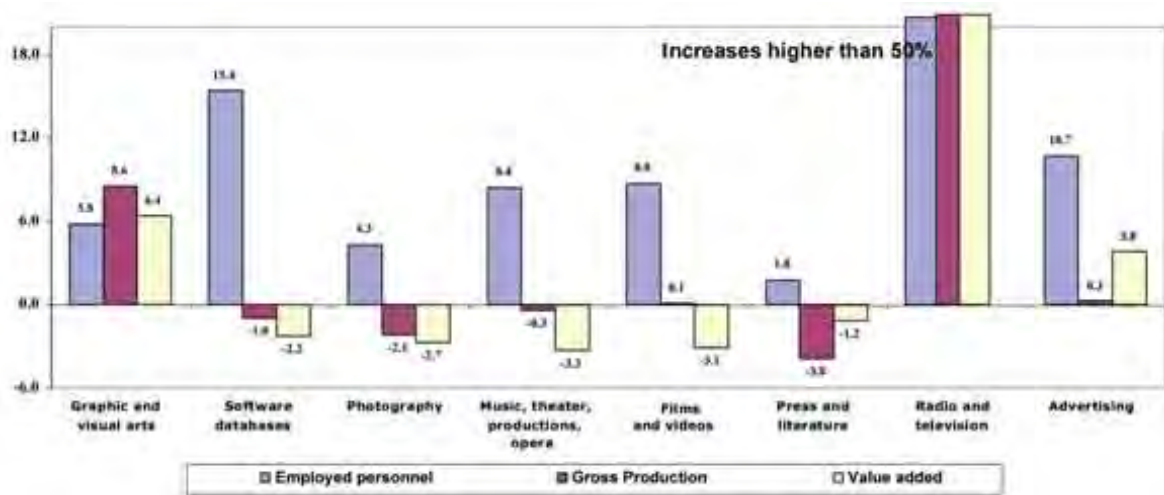
The data related to foreign trade of some industries were not included due to lack of statistical information.

Source: INEGI, BANCOMEXT

In summary, the behavior of the sectors grouped under the copyright-based industries during the period 1998 to 2003 can be explained as follows: a substantial increase was seen in radio and television activities (52 percent in personnel employed, 38 percent in production and 80 percent in annual value added); relatively favorable in graphic and visual arts, theater and opera, and advertising services; and an unfavorable evolution in terms of production and value added in software and databases, despite reflecting a significant increase in the workforce; and unfavorable for all items of photography and press and literature.

²⁰ It is worth noting that no statistical data is reported for copyright collecting societies for 1998. Also relevant is the fact that for 2003, the statistical information shows negative values due to the formal structure of these societies and the class incorporates data on other societies and associations not linked to the activity in question.

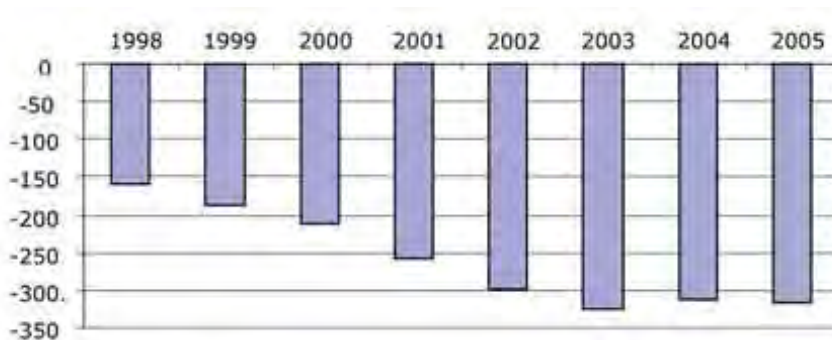
Table 4.11. Indicators by Sector of the Core Industries
Annual Percentage Variations in Real Terms



Source: INEGI

With regard to foreign trade, during the period 1998 to 2005, the core CBI registered a trade deficit of US\$316 million in 2005, well above the US\$160 million deficit reported in 1998.

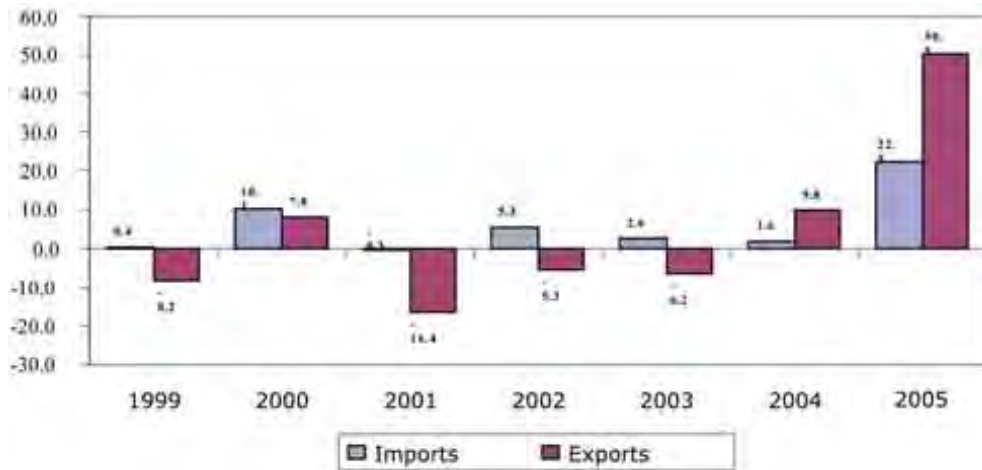
Chart 4.12. Trade Balance of Core Industries
Millions of US\$



Source: INEGI

The above was the result of a rise in imports from 1998 to 2005 at an annual rate of 5.8 percent, whereas exports rose only by 2.8 percent.

**Chart 4.13. Imports and Exports of Core Industries
Annual Percentage Variations**



Source: BANCOMEXT

In general terms the industry trade deficit can be attributed to two sectors: press and literature, and photography, the sectors that report a higher level of foreign trade.

**Table 4.10. Foreign Trade of Core Industries by Sector:
Millions of US\$**

SECTOR	1998	1999	2000	2001	2002	2003	2004	2005	Rate of Change 1998-2005
IMPORTS									
Graphic and Visual Arts	26.5	9.0	13.3	14.4	13.7	10.6	14.1	20.1	-3.9
Motion Picture and Video	5.9	4.3	7.3	5.8	6.6	7.6	5.7	4.8	-2.9
Music, Theater and Opera	0.5	0.6	0.6	0.8	0.9	1.1	0.9	0.6	2.2
Photography	21.3	21.5	23.3	22.2	36.6	25.8	33.9	133.6	30.0
Press and Literature	405.0	425.6	463.1	462.6	474.7	501.1	499.9	520.2	3.6
TOTAL	459.2	461.0	507.6	505.9	532.4	546.0	554.5	679.3	5.8

EXPORT	1998	1999	2000	2001	2002	2003	2004	2005	% Change
Graphic and Visual Arts	14.4	14.0	45.3	12.8	7.5	9.9	12.6	13.7	-0.7
Motion Picture and Video	4.5	3.8	7.1	6.3	8.7	9.5	9.8	10.8	13.2
Music, Theater and Opera	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.3
Photography	9.0	19.2	31.9	28.9	20.2	16.6	13.3	15.8	8.4
Press and Literature	271.2	237.6	211.9	199.5	198.2	184.0	205.9	323.3	2.5
TOTAL	299.2	274.7	296.2	247.7	234.7	220.0	241.6	363.6	2.8
TRADE BALANCE									
Graphic and Visual Arts	-12.1	5.0	31.9	-1.6	-6.3	-0.7	-1.5	-6.4	
Motion Picture and Video	-1.3	-0.5	-0.2	0.5	2.2	2.0	4.1	6.0	
Music, Theater and Opera	-0.5	-0.5	-0.5	-0.7	-0.8	-1.0	-0.8	-0.6	
Photography	-12.3	-2.3	8.5	6.7	-16.4	-9.2	-20.6	-117.8	
Press and Literature	-133.8	-188.0	-251.2	-263.1	-276.5	-317.1	-294.0	-196.9	
TOTAL	-160.0	-186.2	-211.4	-258.2	-297.8	-326.0	-312.9	-315.7	

Source: BANCOMEXT

Within the sectors that constitute the core CBI, the following are the most important aspects of the period 1988 to 2003.

- In graphic and visual arts, the two most relevant sub-sectors, graphic design and fashion design, registered substantial increases above the average in all the indicators: employment, production and value added.
- In software and databases, electronic information processing and web sites showed almost no growth, while software production decreased substantially.
- In the case of photography, a moderate increase was observed in the two industrial classes in which it is featured.
- In music, theater and opera, the classes of activity corresponding to ticket sales and event promotion registered accelerated growth, which was partially offset by the poor performance of music recording, production and distribution, as well as that of theater and dance companies.
- In motion picture and video, almost all classes recorded a negative performance, with the exception of film distribution.

- In press and literature the performance per class was mixed: favorable in printing and book publishing, newspapers and magazines, as well as directories and integrated mailing lists; but the rhythm of activities linked to trade, especially retail, decreased substantially.
- In radio and television, as previously seen, the important growth of the sector resulted from the incorporation of new activities of recent inception into the Mexican economy, which, in 2003 generated a high volume of jobs and value added; among these we find programming and distribution for pay television systems, creation and broadcasting of content over the Internet. This clearly reflects technological innovations in these sectors.
- In advertising, substantial expansion was reported in: production, promotion agencies, media agencies and distribution of advertising material.

4.7. Structure of non-core industries

The creative process, as reported in WIPO's methodological guide, clearly represents an economic activity in itself since it adds value within the production process. Nevertheless, the total economic effect of these industries is not only linked to production activities, but also to other activities carried out along the production chain; mainly, distribution and consumption.

The economic effects generated in this way take different forms and use diverse methods depending on the character of the work. For this reason, measurement of the economic contribution of a product or good protected by copyright requires the analysis of those activities that result from the multiple effects of copyright upon the economy – those of the creators, rights holders, distributors, users, equipment manufacturers, and advertising agents, among others. Chart 4.14, extracted from WIPO's methodological guide, enables us to identify these links.²¹

According to the above, the estimate of the economic contribution of copyright-based industries requires that all the activities in the value chain be taken into account, bearing in mind that the contribution of each one will not have the same weight as those generated by the core industries.

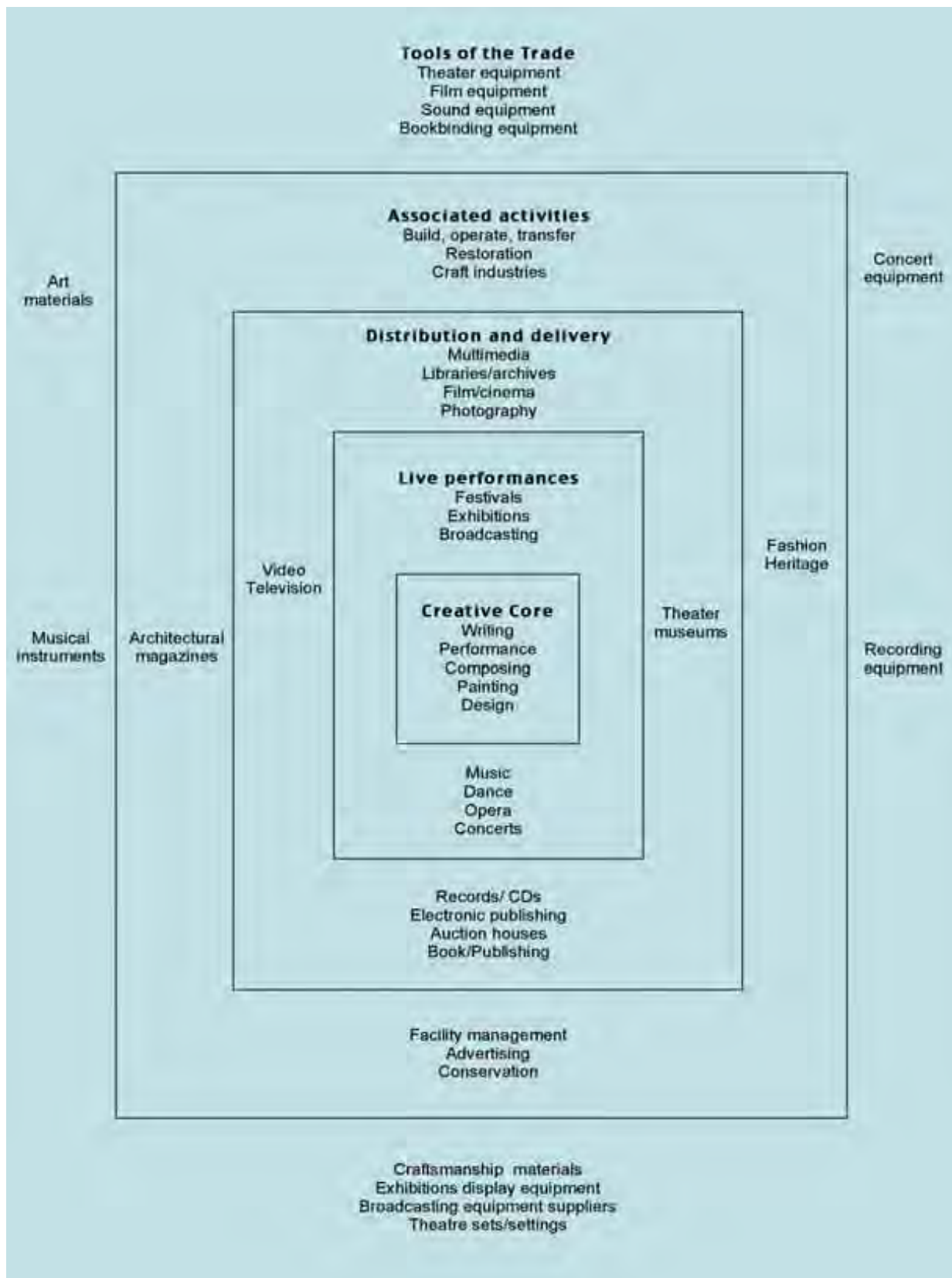
As defined by WIPO, "the weighting process represents the establishment of the proportion of the copyright-based component of an industry. It has to be done in relation to all industries that are not core copyright-based industries where the contribution will be counted as 100 percent."²²

In the next section, we will revise our three indicators (value added, employment and foreign trade) for the non-core industries: interdependent, partial and non-dedicated.

²¹ WIPO. *idem*, page 25.

²² WIPO. *idem*, page 57.

Table 4.14. Creative Industries



Source: WIPO

Table 4.11 shows the value added estimated for non-core copyright-based industries that can be attributed to copyright protection through the application of the estimated weighting factors.²³

Table 4.11. Non-Core Industries. Weighted Value Added 1998 – 2003
Thousands of Pesos (in real 1998 = 100 and nominal terms)

INDUSTRY GROUPS		1998	2003	% change
NON-CORE	Nominal	116,876,343	174,950,640	49.69%
	Real	116,876,343	110,283,000	-5.64%
INTERDEPENDENT	Nominal	74,067,178	91,634,879	23.72%
	Real	74,067,178	57,763,546	-22.01%
PARTIALS	Nominal	27,561,859	46,481,271	68.64%
	Real	27,561,859	29,300,230	6.31%
NON-DEDICATED	Nominal	15,247,305	36,834,491	141.58%
	Real	15,247,305	23,219,224	49.69%

*The figures reported in the census have been multiplied by a weighting factor that estimates the portion of these sectors that are in effect protected by copyright. (The formula used is $b = a \cdot C$; where a is the estimated copyright factor of the contribution to the economic contribution of partial industries in all CBI, C is the statistical figure reported by INEGI and b is the final figure reported in this table.

Source: Estimates based on INEGI data

In general, during the reference period, the non-core CBI reported a 5.64 percent fall in value added in real terms, which resulted in a negative effect of the economic contribution of total CBI. This overall reduction is explained as the result of the diverse growth performance of each sector in terms of real value added.

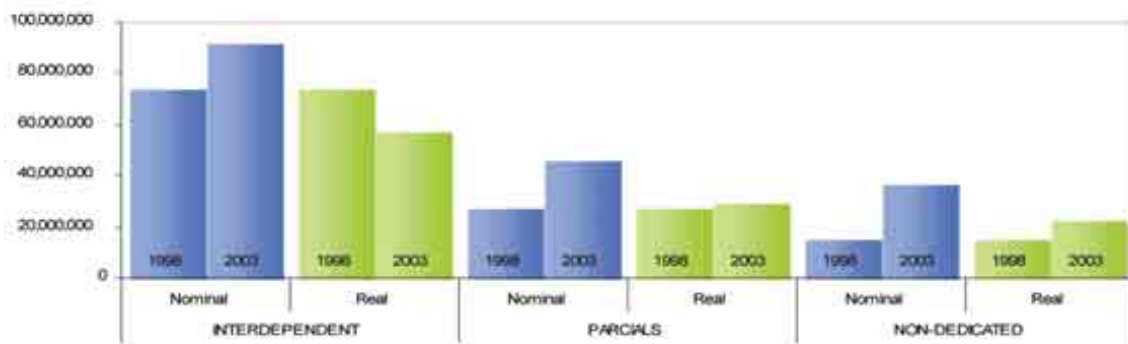
As shown in Chart 4.15, the value added of interdependent industries decreased significantly (-22.01 percent in real terms); at the same time, partial industries showed an increase (6.31 percent) while non-dedicated industries grew significantly (49.69 percent).

Given the importance of interdependent industries in estimating the economic contribution of CBI,²⁴ this real drop in their value added variable greatly affected them, and could not be counteracted by the increase in the partial and non-dedicated industries in view of their lower copyright contribution to the performance of total CBI.

²³ See Chapter II, section 2.4. for a detailed explanation of the calculation of copyright factors to estimate the economic contribution of Mexican CBI.

²⁴ Interdependent copyright industries made a bigger contribution to CBI than partial or non-dedicated support industries.

Chart 4.15. Non-Core Industries Comparative Value Added 1998-2003
Thousands of Pesos in Nominal and Real Terms



Source: Estimates based on INEGI data

4.8. Structure of interdependent industries

Interdependent industries are those industries dedicated to the production, manufacture and sale of equipment whose function is primarily aimed at facilitating the creation, production and use of works and other protected materials. Based on this, and according to WIPO methodology, interdependent industries include manufacture, wholesale and retail for the following sectors:

- Television, radios, VCRs, CDs, DVDs and cassette players, electronic gaming equipment and other similar equipment
- Computers and equipment
- Musical instruments
- Photographic and film equipment
- Recording materials
- Paper

In terms of measuring the economic contribution of interdependent industries, we have to analyze the type of goods produced and their link to copyright products. The consumption of some of the products from these industries is entirely complementary to those of the core industries and, in this case, their economic contribution should be measured in full since their consumption depends on the availability of the protected works: television, radio, VCRs, CD/DVDs and cassette players, electronic gaming equipment, musical instruments and computers and equipment.

A second group of goods produced by the interdependent industries does not exist primarily for activities or functions related to copyright-protected works. The main function of these products does not depend on protected works; on the contrary, they facilitate the use of these protected works. In this sense, their contribution to the CBI is partial and this should be taken into consideration.

As explained in Chapter II of this study, the estimate of the copyright contribution of non-core industries follows the weighting methodology and factors used in the US and Hungarian studies cited earlier and applies a simple average of the two-country factors to estimate proxy weighting factors for the Mexican case.

To simplify, this section considers that all interdependent industries respond to the principle of total complementarity, leaving the differentiation between the first and second group of interdependent industries mentioned above for future study.

According to the above, the interdependent industries generated a value added of 91,634,879 pesos in the year 2003, reflecting a growth rate compared to the 1998 value added (74,067,178 pesos) of around 23.7 percent in nominal terms.

However, as can be seen in Table 4.12, in real terms the value added of interdependent industries fell 22 percent mainly as a result of the deterioration of the computing and equipment sector as well as the paper sector.

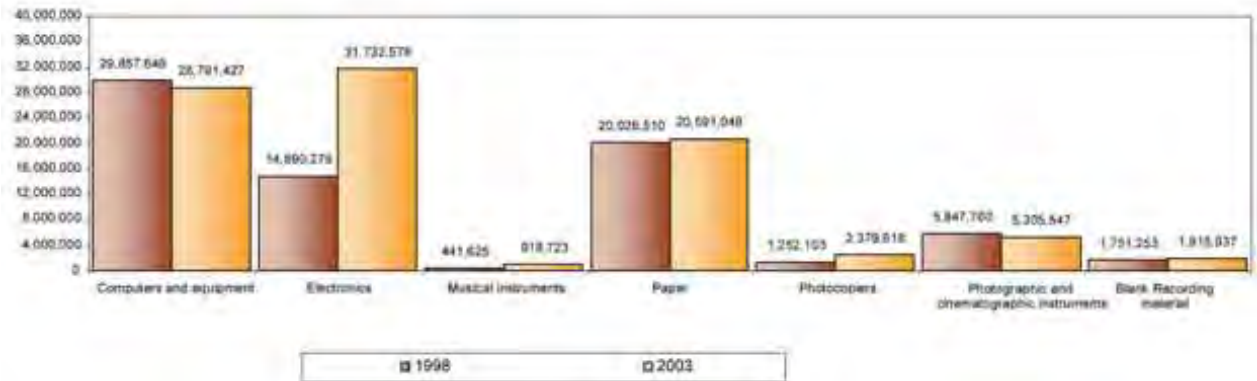
Table 4.12. Interdependent Industries: Value Added per Sector of Activity

INTERDEPENDENT INDUSTRIES	Value Added Thousands of Pesos			
	Nominal Terms		Real Terms	
	1998	2003	1998	2003
Total	74,067,178	91,634,879	74,067,178	57,763,546
Computers and equipment	29,857,648	28,791,427	29,857,648	18,149,147
Electronics	14,890,279	31,732,578	14,890,279	20,003,150
Musical instruments	441,625	918,723	441,625	579,132
Paper	20,026,510	20,591,049	20,026,510	12,979,905
Photocopiers	1,252,103	2,379,618	1,252,103	1,500,031
Photography and motion picture	5,847,760	5,305,547	5,847,760	3,344,438
Recording material	1,751,253	1,915,937	1,751,253	1,207,742
Deflator				1.5864

Source: INEGI

For the interdependent industries, it is evident that computers, electronic equipment and paper are their highest contributing sectors. Therefore, falls in any of these will have a greater effect on the performance of the interdependent industries than any other (see Chart 4.16).

Chart 4.16. Interdependent Industries: Composition of Value Added 1998 -2003.
Thousands of current Pesos



Source: INEGI

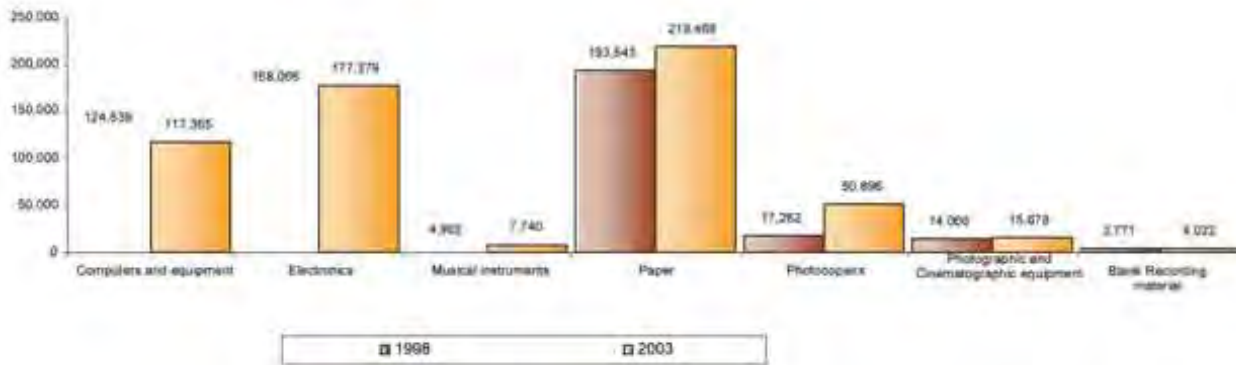
Interdependent industries experienced a 12.6 percent increase in the number of personnel employed between 1998 and 2003. This growth in employment is more or less apparent in all sectors, except for computers and equipment (see Table 4.13 and Chart 4.17).

Table 4.13. Interdependent Industries: Employment per Sector 1998-2003
Number Employed

INTERDEPENDENT INDUSTRIES	Number Employed (Units)		
	Units		% change
	1998	2003	
Total	526,229	592,549	12.6%
Computers and equipment	124,539	117,365	-5.7%
Electronics	168,066	177,379	5.5%
Musical instruments	4,962	7,740	55.9%
Paper	193,543	219,469	13.39%
Photocopiers	17,282	50,896	94.5%
Photographic and cinematographic instruments	14,066	15,678	11.46%
Blank recording material	3,771	4,022	6.6%

Source: INEGI

Chart 4.17. Interdependent Industries: Employment 1998-2003
Number Employed



Source: INEGI

In terms of foreign trade, during the study period imports increased by 10.3 percent while exports grew by 27.8 percent, allowing for the maintenance of the trade surplus. This performance was led by the electronic products sector, which cannot be disaggregated due to limitations in the availability of foreign trade statistics. Yet, it seems that this most probably includes a significant contribution from the products generated by the in-bond industry, as well as from the computers and equipment sector.

Table 4.14. Interdependent Industries: Foreign Trade
US\$ Millions

Interdependent Industries	Imports		Exports		Trade Balance	
	Millions of US\$					
	1998	2003	1998	2003	1998	2003
Total	7,227	7,970	11,859	15,156	4,632	7,186
Computers and equipment	-	-	-	-	-	-
Electronics	3,672	4,106	9,929	13,451	6,256	9,345
Musical instruments	37	54	74	50	37	-4
Paper	2,811	3,399	833	1,032	1,978	-2,367
Photocopiers	458	173	676	138	217	-35
Photographic and cinematographic instruments	248	238	348	486	99	247
Blank recording material	-	-	-	-	-	-

Source: BANCOMEXT

4.9. Structure of partial industries

Partial industries are those industries in which a segment of the activities is related to copyright-protected works and materials and which can involve creation, production and manufacture, performing, broadcasting, communication and exhibition or distribution and sales.²⁵ Partial industries include the following:

- Architecture, engineering, surveying
- Household goods, china and glass
- Jewelry and coins
- Other crafts
- Toys and games
- Furniture
- Museums
- Wall coverings and carpets
- Apparel, textiles and footwear

All of these sectors include some activities and products that result from copyright, but they also include other non-copyright-linked activities. Their importance in estimating the economic contribution of copyright-based industries is partial and as such, a copyright factor that acknowledges this limited participation has been applied.

This section analyses partial industries in Mexico and their participation in the economic contribution of CBI. As in the case of interdependent industries, the tables and charts given have taken into consideration the copyright factor that seeks to estimate the degree of contribution of these industries to total CBI.

During the study period, the value added for these industries increased by 69 percent in nominal terms, from 27,561,859 pesos in 1988 to 46,481,271 in 2003. In real terms, this represented a 6.31 percent growth for interdependent industries as a whole.

²⁵ WIPO. *idem*, page 33.

Table 4.15. Partial Industries: Weighted Value Added 1998 -2003
Thousands of Pesos in Nominal and Real Terms

PARTIAL INDUSTRIES*	Value Added			
	Nominal Terms		Real Terms	
	1998	2003	1998	2003
Total	27,561,859	46,481,271	27,561,859	29,300,230
Apparel, textiles and footwear	143,505	116,848	6,199,152	6,760,345
Architecture	10,803,938	17,441,379	10,803,938	10,994,459
Furniture	495,429	555,084	495,429	349,906
Household goods, china and glass	7,322,413	14,118,964	7,322,413	8,900,120
Jewelry and coins	505,405	862,716	505,405	543,827
Museums	71,069	91,311	71,069	57,559
Other crafts	192,316	224,333	192,316	141,412
Toys and games	1,879,569	2,293,604	1,879,569	1,445,811
Wall coverings and carpets	1,174	1,664	92,568	106,791

*The figures reported in the census have been multiplied by a weighting factor that estimates the portion of these sectors that are protected by copyright. (The formula used is $b = a \cdot C$; where a is the estimated copyright factor of the contribution of partial industries to the economy in all CBI, C is the statistical figure reported by INEGI and b is the final figure reported in this table.

Source: Estimates based in INEGI data

Employment for partial industries reported a 10 percent rate of growth during the period, from 372,544 employees in 1998 to 410,955 in 2003. This overall growth in employment was primarily the result of an increase in the household goods and architecture sectors.

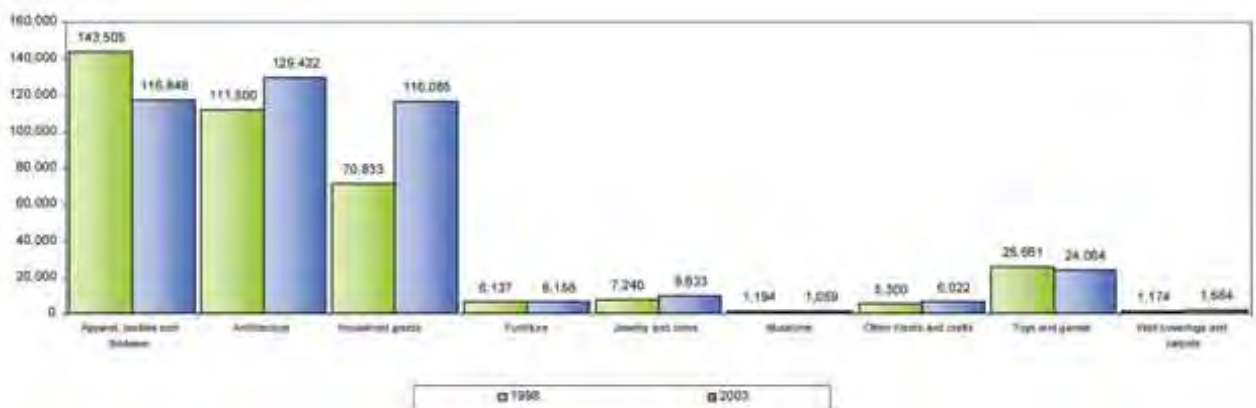
However, a decrease in the partial industries was reported in toys and games, museums and apparel, textiles and footwear (see Table 4.16).

Table 4.16. Partial Industries: Employment 1998-2003
Number Employed

PARTIAL INDUSTRIES	Number Employed Weighted Units	
	1998	2003
Total	372,544	410,955
Apparel, textiles and footwear	143,505	116,848
Architecture	111,500	129,422
Furniture	6,137	6,158
Household goods	70,833	116,085
Jewelry and coins	7,240	9,633
Museums	1,194	1,059
Other handicrafts	5,300	6,022
Toys and games	25,661	24,064
Wall coverings and carpets	1,174	1,664

Source: Estimates based on INEGI data.

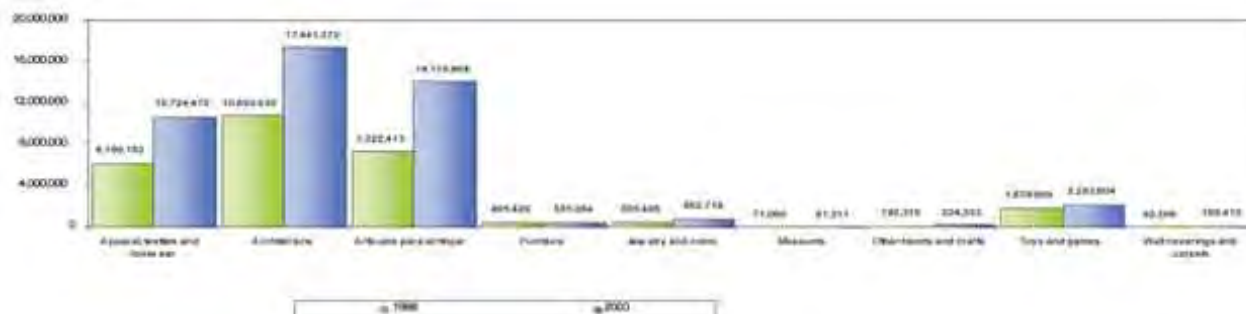
Chart 4.17. Partial Industries: Employment by Sector 1998- 2003.
Weighted Units



Source: Estimates based on INEGI data

In terms of the composition of the partial copyright industries, those that stand out for their contribution are, in order of importance, architecture, household goods, apparel, textiles and footwear and toys.

Chart 4.18. Partial Industries: Value Added 1998 - 2003
Thousands of Pesos (nominal weighted terms)



Source: Estimates based on INEGI data

Finally, as regards foreign trade variables, partial copyright industries have increased their level of imports, generating a trade deficit with only one surplus reported in the jewelry and coins and furniture items.

Table 4.17. Partial Industries: Foreign Trade 1998 - 2003
Millions of US\$ (weighted)

Partial Industries	Imports (Millions of US\$)		Exports (Millions of US\$)		Trade Balance (Millions of US\$)	
	1998	2003	1998	2003	1998	2003
Total	613	891	756	679	143	-212
Apparel, textiles and footwear	227.38	325.44	125.24	102.26	-102	-223
Architecture	-	-	-	-	-	-
Furniture	8.15	11.02	22.19	21.15	14	10
Household goods	134.28	205.34	166.40	187.67	32	-18
Jewelry and coins	128.48	140.63	176.32	204.23	48	64
Museums	-	-	-	-	-	-
Other handicrafts and crafts	-	-	-	-	-	-
Toys and games	114.35	208.46	265.41	163.58	151	-45
Wall coverings and carpets	-	-	-	-	-	-

Source: Estimates based on BANCOMEXT data

4.10. Structure of non-dedicated support industries

Non-dedicated support industries are those industries in which a portion of the activity is related to facilitating broadcasting, communication, distribution or sales of works and other copyright-protected goods, but that have not been included in the core industries.²⁶ These include:

- General wholesale and retail
- General transportation
- Telephony and Internet

These industries have an economic effect on the CBI as part of the production and distribution chain of copyright-based goods, but to a lesser degree than the other industries. Thus, to estimate their economic contribution, we have once again applied a weighting factor aimed at quantifying their participation in the economic contribution of the CBI to the Mexican economy.

In addition, a careful selection of classes and subclasses was made, eliminating those that, in our view, have no link to copyright protection and the industries within CBI groups.

Table 4.18. Non-Dedicated Industries: Value Added 1998- 2003
Thousands of Pesos (weighted figures in nominal and real terms)

NON-DEDICATED INDUSTRIES*	Value Added			
	Nominal Terms		Real Terms	
	1998	2003	1998	2003
Total	15,247,305	36,834,491	15,247,305	23,219,224
General transportation	5,508,403	10,141,119	5,508,403	6,392,620
General wholesale and retail	9,738,902	16,155,103	9,738,902	10,183,634
Telephony and Internet	0	10,538,269	0	6,642,970
Deflator				1.5864

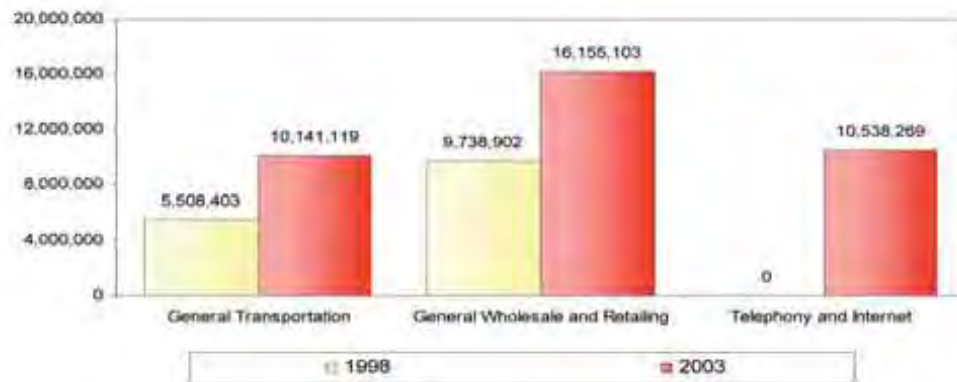
Telephony and Internet were not registered independently in 1998 as reflected by the zero figure for that year.
Source: Estimates based on INEGI data

In terms of value added, the non-dedicated industries report an important increase of 52 percent in real terms, with the rapid development of the telephony and Internet sector that resulted from the introduction of technological innovations in IT during the period under study. This sector's dynamism has created a breakthrough for the CBI in terms of broadcasting of copyright-based works, on the one hand, and of the degree of response from the legal system as regards copyright protection.

²⁶ WIPO, *idem*, page 35.



Chart 4.19. Non-Dedicated Industries. Value Added 1998-2003.
Thousands of Pesos (weighted nominal terms)



Source: Estimates based on INEGI data

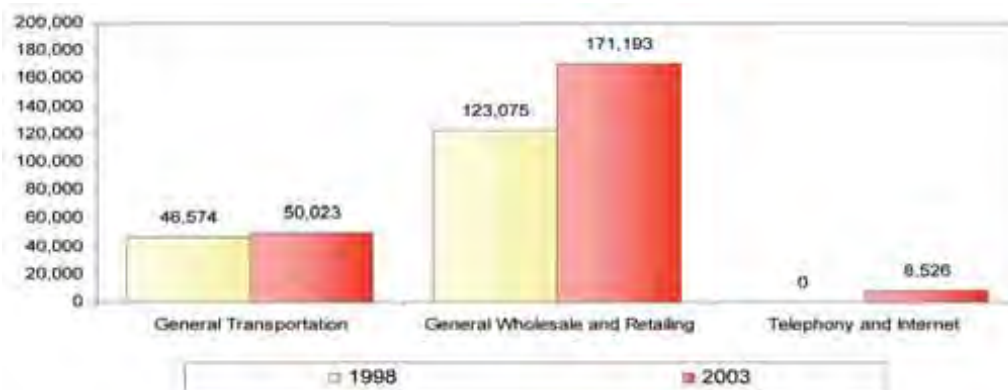
In terms of employment, an important increase of 35.4 percent in the number of personnel employed between 1998 and 2003 in these industries was reported as shown in Table 4.19.

Table 4.19. Non-Dedicated Industries: Employment 1998 – 2003.
Weighted Units

NON-DEDICATED INDUSTRIES	Number Employed (Units)	
	1998	2003
Total	169,649	229,741
General transportation	46,574	50,023
General wholesale and retail	123,075	171,193
Telephony and Internet	0	8,526

Source: Estimates based on INEGI data

Chart 4.20. Non-dedicated Industries. Employment 1998 - 2003
Weighted Units



Source: Estimates based on INEGI data

Finally, as regards foreign trade for the non-dedicated segment, a strong trade deficit (derived from a greater increase in imports than that reported in exports) persists.

Table 4.20. Non-Dedicated Industries: Foreign Trade
Millions of US\$ (weighted figures)

NON-DEDICATED INDUSTRIES*	Imports		Exports		Trade Balance	
	Millions of US\$					
	1998	2003	1998	2003	1998	2003
Total	9,927	13,666	8,213	11,051	-1,715	-2,616

* Source: The original statistics were obtained from BANCOMEXT and they appear different. A contribution to the CBI weighting factor was later applied to them.

Source: Estimates based on BANCOMEXT World Database

In summary, in the five year period, the non-dedicated industries showed strong growth that can be attributed to innovation related to the development and growth of IT and communications. However, the sector shows a continuing dependence on imports which in general reflects the strong dependence of the Mexican economy on foreign markets and a weakness of the local market in terms of production that would allow it to compete effectively. Also relevant is the capacity of labor absorption during the period which once again confirms the importance of the sector as a generator of employment.

4.11. International comparisons

We have analyzed the national composition of Mexican copyright-based industries and their contribution to the local economy. However, given the increasingly global nature of the CBI and to meet the aims of the study, a comparison with certain other countries is made in this section.

The selection of countries with which to establish an international comparison of copyright industries was made, based on the following:

- Countries that had carried out similar studies using the WIPO methodology
- Countries that, using the WIPO methodology, had data for 1998 and 2003 or close time periods
- Countries with a close link with Mexico as regards their trade relationship and level of development

As a result of the above, the countries selected were Canada,²⁷ the US²⁸ and Hungary.²⁹

The comparison is made in relative terms of the contribution of copyright-based value added to GDP in the four countries and regarding the composition of the CBI in each.

Table 4.21. International Comparisons

Country	Data Year	CBI Value Added as percentage of GDP
Canada	2002	5.33
Hungary	2003	6.67
Mexico	2003	3.31
United States	2002	9.59

Source: INEGI and country studies

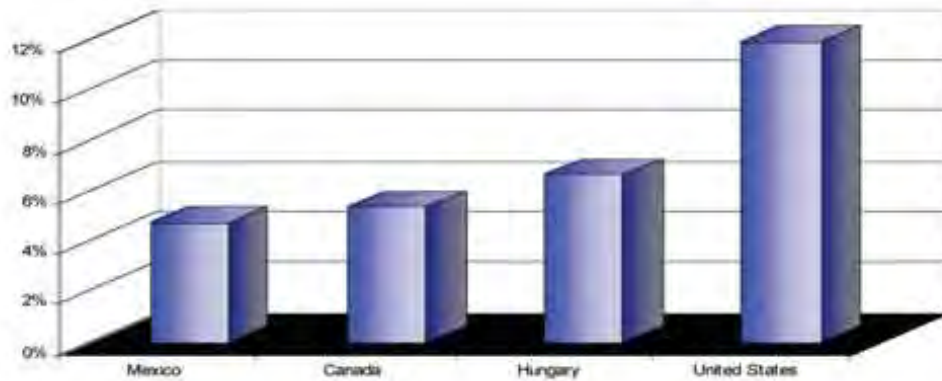
As regards the importance of copyright-based industries as a percentage of GDP, the US leads with a 12 percent share, followed by Hungary with 6.67 percent, and 5.34 percent for Canada. In the case of Mexico, the CBI represented only 4.77 percent of GDP for the year 2003.

²⁷ *The Economic Contribution of Copyright-Based Industries in Canada: the 2004 Report*, prepared for: Canadian Heritage by Wall Communications, March 31, 2004.

²⁸ *Copyright Industries in the U.S. Economy: the 2004 Report*, prepared for the International Intellectual Property Alliance by Stephen Siwek, Economists Incorporated, 2004, ISBN 0-9634708-2-5.

²⁹ *The Economic Contribution of Copyright-Based Industries in Hungary: the 2005 Report*, prepared by Dr. Krisztina Penyige and Dr. Peter Munkacs, Hungarian Patent Office, November 2005.

Chart 4.21. International Comparison of the Economic Contribution of the CBI



Note. Data used for Canada and the US is for 2002; Mexico and Hungary use data for 2003.

The lower level of participation of copyright-based industries to GDP in Mexico compared to other countries is a reflection of different issues:

- A slower process for bringing Mexican intellectual property legislation into line with international standards, not only as regards the law itself but primarily as regards awareness and the rule of law
- A flourishing informal sector that affects copyright-based industries more than others
- Public policies that have reduced support for these industries in Mexico
- The slower introduction of innovative communication technologies such as telephony and Internet especially in rural areas
- The continuing belief among the industries' stakeholders that these activities are more a cultural heritage than a potential source of economic growth and development

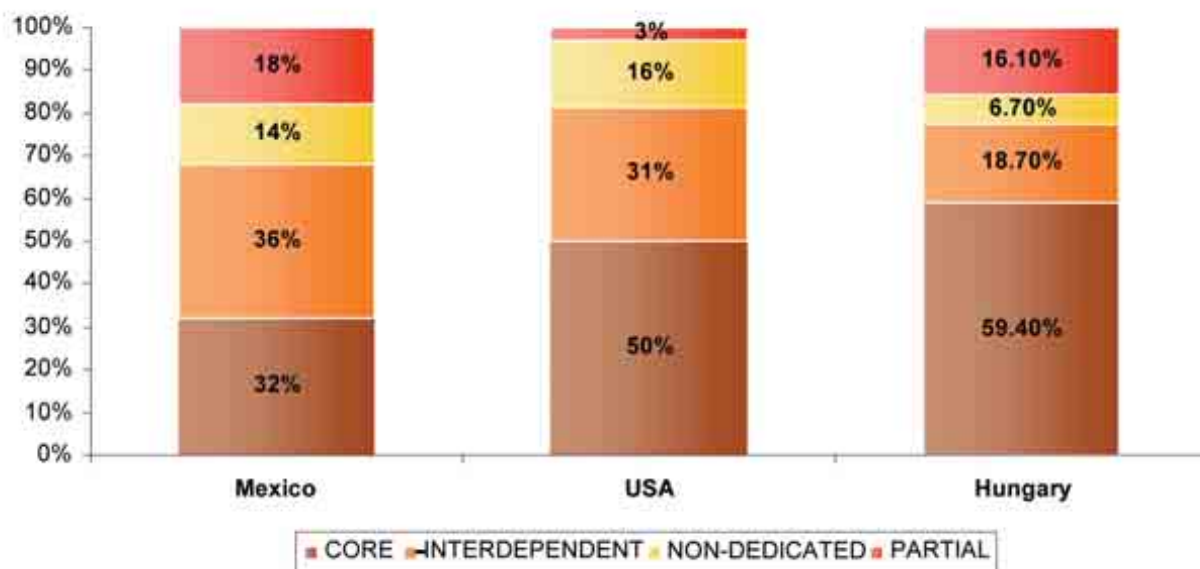
As regards the internal composition of these industries among the countries compared, we find that while Mexican core industries represent 32 percent of total copyright industries, in Canada and the US they represent 43 percent and 50 percent respectively, with a figure of 59.4 percent for Hungary.

Table 4.22. Value Added. Industrial Structure Contribution per Country

INDUSTRY GROUP	Mexico 2003	US 2002	Hungary 2002	Canada 2002
CORE	32%	50%	59.40%	42.55%
INTERDEPENDENT	36%	31%	18.70%	57.45%
NON DEDICATED	14%	16%	6.70%	
PARTIAL	18%	3%	16.10%	

For non-core industries, these appear stronger for Mexico and the US, while Hungary reports a smaller contribution (see Chart 4.22).

Chart 4.22. Composition of Copyright Based Industries in Selected Countries



In general, we find stronger copyright industries in the other three countries included in this comparative analysis, but the growth in share of core copyright-based industries vs. non-core industries, the positive expectations regarding economic growth for the Mexican economy and a slow but progressive strengthening of the rule of law in Mexico must surely translate into a growing contribution of these industries to our economy.

As will be reviewed in the next section, copyright-based industries include quite diverse sectors as regards their historic and economic performance and one can expect that the growth of each will depend on sector-specific factors.

In general terms, Mexican CBI could improve their performance in the coming years subject to receiving higher levels of investment both in human and physical capital that could increase productivity as well as the quality of the employment generated within the sectors. However, these levels of investment will not be increased if tighter protection of copyright and effective measures against piracy are not effected by the incoming presidential administration.

Chapter V. Description of the Evolution of some Core Copyright-Based Industries in Mexico

The present chapter aims at describing the recent evolution of some of the core copyright-based industries in Mexico in order to give the reader a general overview of how each industry has evolved and the specific nature of its present economic situation. As mentioned earlier, culture in Mexico has generally been regarded as a fundamental element of heritage and therefore worth keeping alive through government support. However, the notion of these industries as a source of economic growth has been less-well accepted and explains not only the lack of the availability of hard economic data but also the limited level of investment as compared to other sectors of the economy.

As shown in Chapter II, core copyright-based industries are divided into nine main groups:

- Press and Literature;
- Music, Theater and Opera;
- Motion Picture and Video;
- Radio and Television;
- Photography;
- Software and Databases;
- Visual and Graphic Arts;
- Advertising;
- Copyright Collecting Societies.

The economic activities of these industries and therefore their growth are based on copyright protection. Thus, it is of great relevance to not only review the statistical data for each sector but also to present the recent evolution of these activities as part of the arguments that explain performance and future trends.

In Mexico, as elsewhere, many factors explain the development of the sectorial structure in these industries in global terms:

- Technological trends marked by ongoing innovation, specifically in the development of information technology
- A growing global communication network that opens up new alternatives for the daily dissemination and distribution of contents
- The introduction of new regulations in the fields of protection of copyright, personal data safety and others related to trade and exploitation of copyright-protected works to keep up with the innovative process
- The transformation of economic structures that have taken countries from primary sector-based economies towards service-based economies where knowledge and content become the main inputs

These global trends have gradually permeated into the Mexican economy and taken on a local behavioral pattern defined by a series of changes that have occurred here in the last decade. These changes have radically altered the scene for copyright-based industries and might, if properly managed, support their long-term development. At present, among the most relevant are:

- A greater openness of the Mexican economy that has accelerated the introduction of new technologies and greater contact with global issues
- A growing awareness of the importance of our rich cultural and artistic heritage at the international level
- A growing social appreciation of this heritage as inherent to the Mexican culture, accompanied by a change in perception which increasingly takes into account its economic value as an industry that can help promote economic growth and development
- A greater awareness and understanding of copyright protection among authorities and the general public which has led to a stronger legal framework, more sensitive to the industry's needs
- A stronger, though still ineffective rule of law, which is essential for the protection of intellectual property rights

These global and local trends have slowly changed the CBI scene, but they are still the first steps in the development process of these industries and of the economic structure of Mexico. As will be seen in the next sections, copyright-based industries are highly dependent on government support which is still offered as a subsidy to preserve cultural identity, instead of being offered as an attractive investment venture that can support the much-needed growth in employment and value added.

In Chapter IV, the contribution of the copyright-based industries was shown using only statistical data without consideration of the cultural and human elements that accompany their growth. The economic contribution of the CBI is directly linked to the richness in terms of economic, human, natural and, especially, cultural resources of Mexico. Therefore, a study of this kind cannot simply submit raw statistics and estimates of the contributions of these industries to explain performance and future trends. The present chapter aims at presenting a brief description of the evolution of some of the core sectors as a background to the estimates presented and the general trends observed. This will enable the reader to understand the particularities faced by Mexico in the development and growth of these industries and the challenges that we all face in their consolidation.

The diversity of factors, both of a global and a local nature, has produced a slow and modest consolidation of the copyright-based industries which, nevertheless, require a sector-specific analysis in order for us to understand their behavior and be able to define alternatives for the growth of each one.

If we review the statistical information in the Mexican case, the core components of the copyright-based industries show an outstanding contribution in terms of value added in the sectors of press and literature, radio and television, and music. In terms of the employment contribution, press and literature and the music sectors are the most important (see Tables 5.1 and 5.2).

Table 5.1. Core Industries by Sector of Activity 1998 and 2003

CORE INDUSTRIES	Employment		Value Added		Imports		Exports	
	Number Employed		Thousands of Pesos 1998 = 100		Millions of US\$		Millions of US\$	
	1998	2003	1998	2003	1998	2003	1998	2003
Total	376,210	554,218	40,609,231	53,026,948	459	546	299	220
Advertising	39,994	66,381	4,210,902	5,076,059	-	-	-	-
Copyright Collecting Societies	-	1,940	-	-9,075	-	-	-	-
Graphic and Visual Arts	19,770	26,249	1,249,793	1,704,785	27	11	14	10
Motion Picture and Video	29,831	45,391	2,745,634	2,349,135	6	8	5	10
Music, Theater and Opera	41,501	62,239	6,259,120	5,287,935	1	1	0	0
Photography	21,951	27,118	1,055,238	919,167	21	26	9	17
Press and Literature	181,371	198,647	18,460,632	17,414,690	405	501	271	184
Radio and Television	6,715	54,372	799,298	15,070,495	-	-	-	-
Software and Databases	35,077	71,881	5,828,614	5,213,756	-	-	-	-

Source: INEGI, BANCOMEXT

**Table 5.2. Core Industries. 2003 Sectorial Structure
Contribution with respect to Total Core CBI**

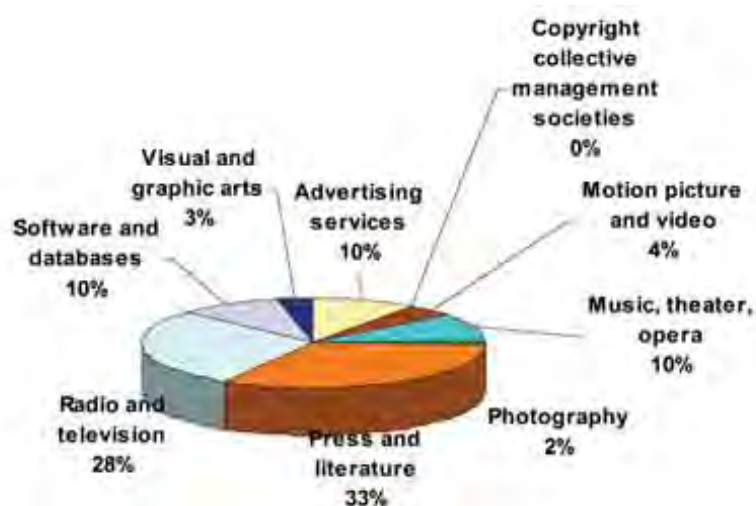
Sector	Number Employed % of total	Value Added % of total
Advertising	12	9.6
Copyright Collecting Societies	0.4	0.1
Graphic and Visual Arts	4.7	3.2
Motion Picture and Video	8.2	4.4
Music, Theater and Opera	11.2	10
Photography	4.9	1.7
Press and Literature	35.8	32.8
Radio and Television	9.8	28.4
Software and Databases	13	9.8

Source: INEGI.



In terms of value added, the most important sector is again press and literature (32.8 percent), followed by radio and television (28.4 percent), and music, theater and opera (10 percent) (see Chart 5.1).

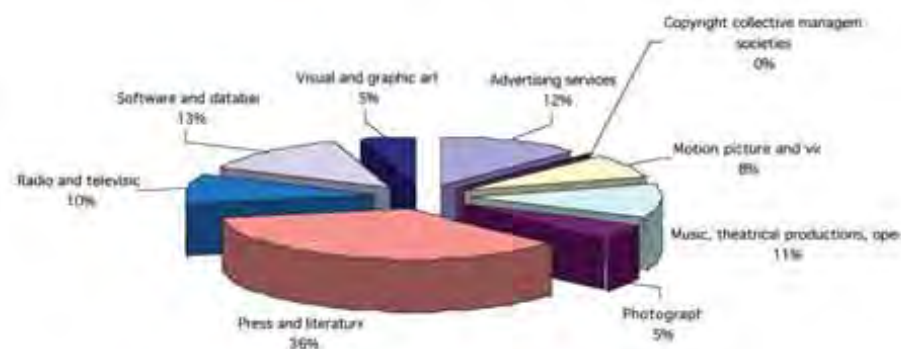
Chart 5.1. Core Industries: 2003 Sectorial Structure
Contribution of the Value Added with respect to Total



Source: INEGI

Employment generation in 2003, as shown in Chart 5.2, was led by the press and literature sector, with a 35.8 percent contribution to employment in total core copyright-based industries, followed by software and databases (13 percent) and advertising services (12 percent).

Chart 5.2. Core Industries: 2003 Sectorial Structure
Contribution of Employment by Sector with respect to Total



Source: INEGI

It is important to consider these structures, since a high contribution in terms of employment does not necessarily mean a greater value added. This is the case of the software and databases sector which, despite contributing to the growth of employment for these industries, in terms of value added contributed less than that reported for 1998.

The behavior of core industries responds to different historical, regulatory and economic situations that will be briefly reviewed so that they may serve as the framework for a better understanding of the results obtained in estimating the economic contribution of the CBI in Chapter IV.

5.1. Press and literature

Mexico is one of the three Latin American countries with the most vigorous publishing industries in the region in terms of production and distribution. In the Mexican case, its focus has been on elementary school textbooks with the government playing a leading role in production.

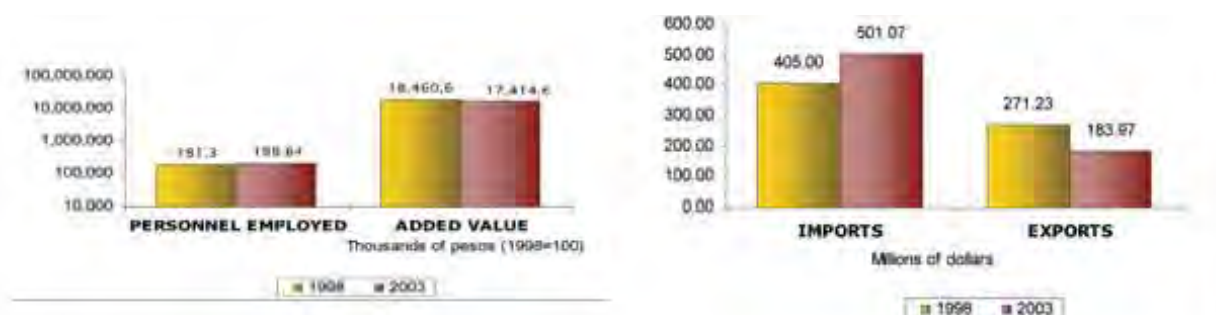
The industry's growth is marked by consumer preferences. According to a study conducted by the Organization of American States (OAS),³⁰ these preferences have focused on entertainment, mostly fiction, current events, sports, esotericism, traveling and self-help.

As regards the industry's structure, the small publishing companies have been replaced by large conglomerates and new distribution schemes through the Internet have replaced the traditional bookstores.

In economic terms, the press and literature industry is undoubtedly the most important within the core CBI. In 2003, with 198,467 employees, it represented 35.84 percent of the total CBI industrial labor force and generated 32.84 percent of the total value added, with 17,414,690.38 pesos.

Additionally, the sector's importance as regards its foreign trade activity compared to other CBI is worth mentioning; its reported imports and exports for 2003 of US\$501.07 million and US\$183.97 million respectively represented 91.77 percent and 83.61 percent of the total imports and exports of core industries, in the same period. Also worth noting is the increase in imports and reduction in exports for 2003 when compared to 1998 figures.

Table 5.3. Press and Literature: 1998-2003 Economic Indicators

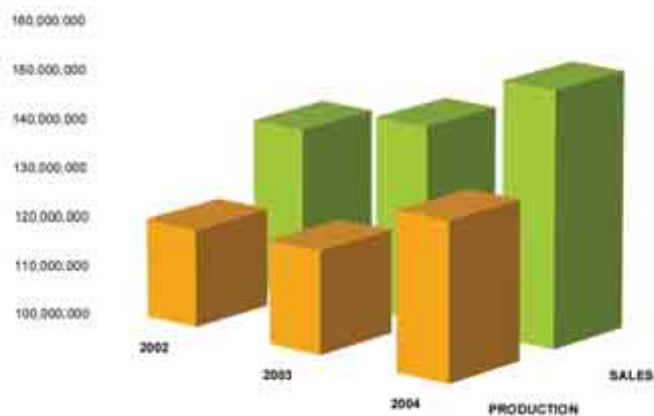


Source: INEGI

³⁰ OAS. *Cultural Industries in the Latin American Economy: Current Status and Outlook in the Context of Globalization*.

Although a decrease in value added occurred during the period 1998-2003, the past two years in the Mexican publishing industry have been of relative stability. The National Chamber of Mexican Publishing Industry (CANIEM) reports in its 2004 Book Publishing Activity³¹ a total of 216 book publishers operating within the private publishing sector in that year, four less than in 2002. Additionally, during the same period, a 10.35 percent increase in the number of copies produced was reported, as well as a 13.35 percent rise in sales. Chart 5.4 shows the growth trend during the period 2002 to 2004.

Chart 5.4. Volume of Production and Publishing Sales

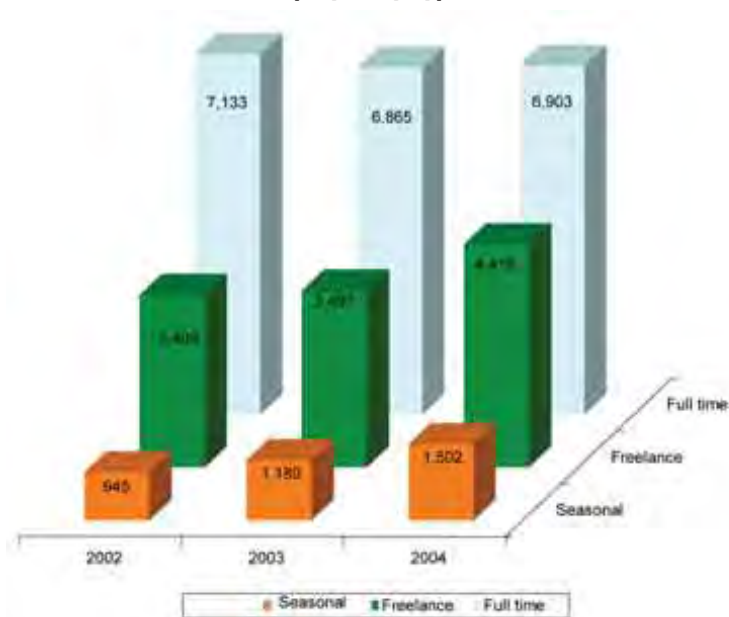


Fuente: CANIEM

The number employed increased by 58.7 percent from 2002 to 2004, with a total workforce of 16,566 in 2004. Of these, 55.8 percent were full-time employees, 34.5 percent were freelance and 9.6 percent, seasonal. As shown by the figures, despite the positive increase reported, the structure has changed, with full-time employment decreasing and freelance employment increasing (see Chart 5.5).

³¹ CANIEM. *Actividad Editorial Libros 2004*.

**Chart 5.5. Employment in the Private Sector
Number Employed by Type of Job**



Source: CANIEM

As regards periodicals, CANIEM reported a total of 462 publishers in 2004, with 1,132 titles published giving a total of 606,742,933 copies.³² In this segment, *Editorial Televisa*, a subsidiary of *Grupo Televisa*, is the leader in terms of publications and distribution in the Mexican market, as well as in the Spanish-speaking market worldwide. The company reports an annual circulation of 137 million magazines with more than 50 titles distributed in 18 countries, which makes it the largest publishing company in the Spanish-speaking world.³³

It is worth mentioning that during the last three years, the number of titles has shown a downward trend, while the circulation of titles published has increased.

According to industry leaders, despite the stability, the sector is facing important challenges for its growth. On the one hand, Mexico is a country where reading is not popular; estimates of half a book per capita per year are constantly quoted and compared to higher international averages.

In order to tackle this situation, the government launched a reading promotion program in May 2002 known as *Towards a Country of Readers (Hacia un país de lectores)*. This program envisaged the remodeling of school and public libraries, the creation of a new National Library and the production of more than 30 million books for classroom libraries. The permanence of the program, in conjunction with educational policies for the promotion of reading practices must be one of many strategies for the consolidation of the sector.

Another fundamental growth deterrent, and which does not appear to be changing, is the competition that the private publishing industry faces from the state publishing industry. The government's participation in this sector is estimated at 70 percent of production in Mexico, while the private sector accounts for the remaining 30 percent. "In Mexico, unlike elsewhere in the world, the textbooks provided free-of-charge for the six-year elementary education program are published by the state. In other countries, it is private

³² CANIEM. *Actividad Editorial: Publicaciones Periódicas 2004-2005*. March 2006.

³³ Information reported by Televisa on its web site: <http://www.televisa.com.mx>.

publishers who print these books and then sell them to the government."³⁴ In the past few years, government acquisitions in the publishing sector have increased but the purchasing price has been severely reduced, which implies a sharp drop in the revenues of the sector's industries.

In the case of the state publishing industry, 180 million copies are produced by the Free Textbook Commission (*Comisión de Libros de Texto Gratuitos*) with the remaining 20 million produced by different public institutions, such as the *Fondo de Cultura Económica* (Fund for Economic Culture), the *Universidad Nacional Autónoma de México* (the National Autonomous University of Mexico), the *Consejo Nacional para la Cultura y las Artes* (National Council for Culture and Arts) and state governments and universities.³⁵

This state participation and the corresponding fragility of the private publishing sector has been acknowledged by the government which has in the past offered preferential fiscal treatment to counterbalance the situation. For decades the industry obtained significant fiscal benefits to compensate for the negative effects that state competition represented to its growth: a zero rate on value added tax had been the rule with a 100 percent exemption from income tax. However, in 1993 the tax authorities decided to withdraw the first 50 percent exemption and in the last reform of 2001, a gradual elimination of the remaining 50 percent exemption was announced, with the benefit to disappear completely in 2006. As a result, the industry has seen its margins reduced while still facing strong state competition.

Other initiatives to strengthen the industry have been taking place in recent years. For example in the last legislative period, the *Ley de Fomento para la Lectura y el Libro* (The Act for the Promotion of Reading and Books) was passed establishing a single price for books. This Act laid down that publishers and book importers should determine a single retail selling price for works less than three years old, published or imported. However, in the last days of the LXIX legislature, the act was vetoed by the President.

Leaders in the sector were hoping that with this Act, together with the creation of the *Consejo Nacional de Fomento para el Libro y la Lectura* (The National Council for the Promotion of Books and Reading) aimed at generating a higher number of readers, it would be strengthened. The Presidential veto on the Single Price Act introduced further uncertainties to a sector already plagued by challenges.

Last but not least, the situation of the industry is affected by piracy and photocopying; it has been estimated that: "Mexico occupies the third position worldwide in photocopying, production and commercialization of counterfeit publishing products," which represents "an annual economic loss of 1,250, 000 pesos for bookstores and 950 million pesos for publishing companies."³⁶

In order to reduce the negative impact of this phenomenon, the *Centro Mexicano de Protección y Fomento de los Derechos de Autor* (CEMPRO) (Mexican Center for Protection and Promotion of Copyright), a copyright collective management society, was established in 1998 to protect and collectively manage reproduction rights of authors and publishers.

According to CEMPRO, the photocopy market in Mexico is valued at around 52,800 million copies per year, with an estimated value of 26,400 million pesos, of which approximately 25 percent can be attributed to the student sector. The loss to authors in terms of unrecovered royalties due to students photocopying published works is estimated by CEMPRO at approximately 500 million pesos causing a reduction in annual sales amounting to around 6,000,000 pesos.³⁷

³⁴ Ayala, Diego. *Falta de lectores: debilidad de la CANIEM*, en *Revista Impresión Digital*, March 2005.

³⁵ *ibid.*

³⁶ *Una década perdida para la industria editorial en México*, in *Público*, February 26, 2003, p. 44.

³⁷ CEMPRO. Press Dossier February 2006.

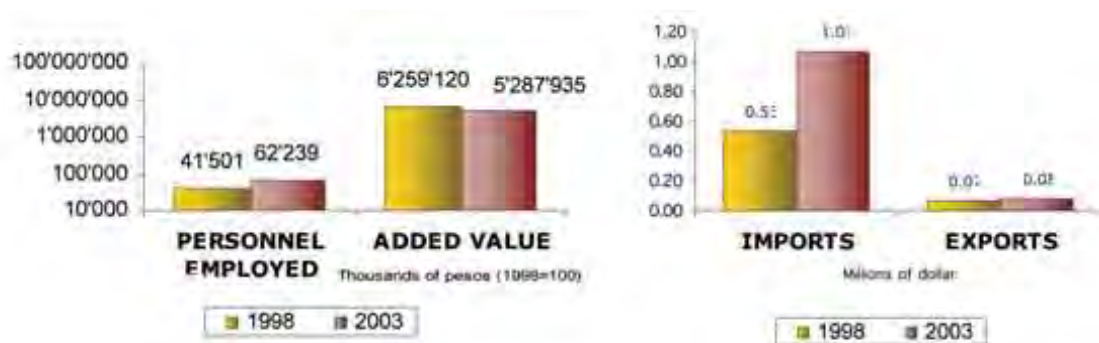
In summary, the private publishing sector in Mexico faces a series of challenges that limit its growth in the immediate future. On the one hand, the more attractive textbook market is controlled by the state both in producing the textbooks required at the elementary level and by exerting a monopolistic control on prices of textbooks bought by the private sector for secondary level education. On the other hand, a strengthening of demand for other published goods depends on income and culture. An improvement in the country's economic situation might lead in the coming years to small increases in demand but the cultural change sought by the policies to promote reading will take much longer. Time is something the industry might not have if we consider the increase in imports during the period reviewed and the change in the employment structure of the sector.

5.2. Music, theater and opera

In the composition of this sector, the great diversity of participating economic stakeholders is remarkable: from composers, choreographers and singers to promoters and ticket agencies, including the music sector and artistic and literary performers.

The music, theater and opera sector makes up an outstanding contribution to the entertainment industry, which has marked an important level of growth in the past years in Mexico. This sector reported a total of 11,730 premises and 62,236 employees in 2003. These figures represent 12.07 percent and 11.23 percent with respect to all core CBI. As to value added, this sector reported a total of 8,388,669 pesos, representing 10 percent of the core CBI total in real terms (see Chart 5.6).

Chart 5.6. Music, Theater and Opera: 1998–2003 Economic Indicators de IPDA básicas



Source: INEGI, BANCOMEXT

As regards demand, the figures presented in Table 5.3 reflect the behavior of the population in terms of entertainment, as shown by the *Encuesta Nacional de Ingreso y Gasto en los Hogares 2004* (National Household Income and Expenditure Survey) which reported that Mexican families spend around 75,166,000 pesos quarterly on entertainment.

According to INEGI's cultural statistics, attendance at shows increased from 17,541,733 in 2001 to 19,505,344 in 2004.³⁸ Trend analysis per type of show reveals that sports events are the most popular, above cultural events, but already showing a negative trend. More relevant to our study was the growth in audiences for music, theater and dance shows during the period 2001-2004, in this order.

³⁸ INEGI. *Estadísticas de Cultura 2004*.

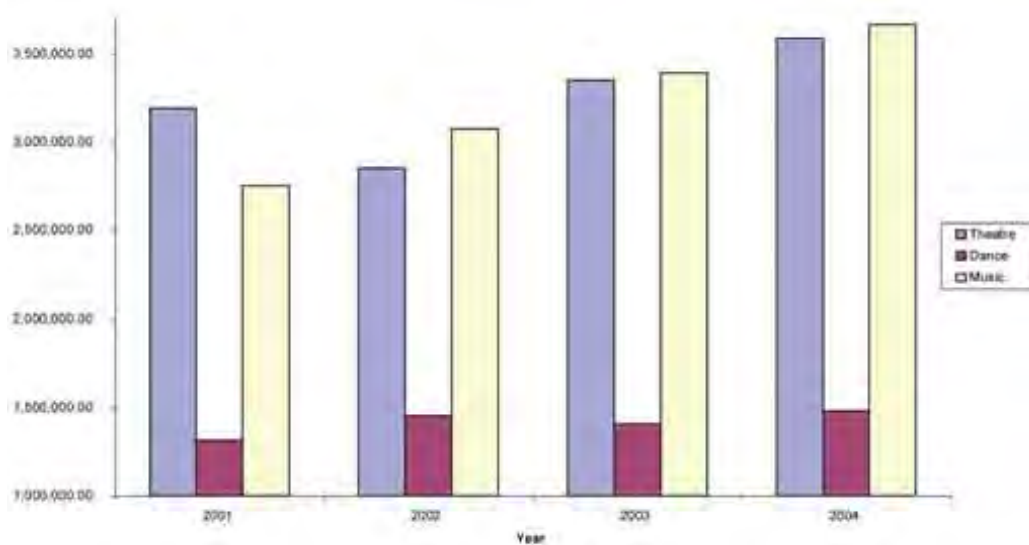
**Table 5.3. Attendance by Type of Show
Percentage Distribution**

Year	Total Attendees	Theater	Dance	Music	Sports	Entertainment
2001	17,541,733	18.2	7.5	15.7	41.5	6.7
2002	18,410,046	15.5	7.9	16.7	43.3	4.7
2003	20,687,388	16.2	6.8	16.4	42.7	9.6
2004	19,505,344	18.4	7.6	18.8	39.2	7.4

Source: INEGI. Cultural Statistics

This can be attributed to diverse factors: greater economic stability enabling families to spend a growing amount of their income on entertainment; a wider offer of world class music and dance events as well as an increase in cultural festivals throughout the country and new collaborative schemes between partner countries for the staging of innovative projects. This, in conjunction with a vast young public demanding more entertainment options compared to their predecessors, is responsible for the growth in this sector.

**Chart 5.7. Attendance at Cultural Shows 2001–2004
Number of Attendees**



Source: INEGI

A logical consequence of the growth in the number of attendees is the expansion in the number of venues available in urban areas. Between 2001 and 2004, the number of venues for entertainment purposes rose 25 percent with approximately half offering cultural events.

Table 5.4. Public Venues by Type. Percentage Distribution

Year	Venues	Theater	Sports	Bullfighting	Leisure ^{a/}
2001	502	55.6	28.7	7.2	8.6
2002	541	54.9	29.2	7.8	8.1
2003	561	55.6	28.7	7.3	8.4
2004	628	52.9	31.8	7.5	7.8

a/ The recreational premises correspond to all those shows offered sporadically, such as equestrian events (*charreada*), Mexican style cowboy festivals (*jaripeos*) and some circus performances.

Source: INEGI. *Cultural Statistics*

For the reader to better understand the structure of this sector, it is important to mention that, in Mexico, private entertainment is mainly generated by one corporation, the Interamerican Entertainment Corporation (CIE) founded in 1995. It has become the foundation of the showbusiness industry in Mexico, with more than 13,000 employees at home and abroad. CIE can boast theaters, ticket reservation systems and artists' agencies among its assets. In recent years CIE has partnered Televisa (one of the two leading private television companies in Mexico)³⁹ allowing for more control of the industry both locally and regionally.

The Mexican music sector has well-known artists, recognized both nationally and internationally, and covers a broad range of genres. In addition to this, there is a strong presence of international music, especially from the US.

In terms of recorded music, the *Asociación Mexicana de Productores de Fonogramas* (Mexican Association of Phonogram Producers) reports that by the end of 2005,⁴⁰ the Mexican Phonogram Industry had marketed around 67 million units, equivalent to 4,474 million pesos. Unit sales increased 19 percent compared to 2004 as a result of the initiative of record companies in launching higher quality productions at lower prices. However, the volume of records sold shows a negative trend, with a 28 percent drop between 2000 and 2005 in terms of value. This reflects the pernicious effect that piracy has on the industry and which has caused a reduction in the development of new artists, as well as the introduction of new products.

As a reflection of this drop in sales, according to figures reported by AMPROFON, the record production companies reduced direct employment by 68 percent during the period and more than 7,000 original music points of sale were eliminated.

A survey conducted by AMPROFON in late 2005 reported that Mexico was one of the countries with the highest piracy rates in music, with approximately 130 million records reproduced illegally. This has had an impact on sales equivalent to a loss of US\$377 million and almost US\$100 million in terms of tax evasion as reported by the Association. Emphasis should be placed on the fact that 65 percent of all records marketed in 2005 were pirated products in a market of 207 million consumers, 61 percent of whom purchased pirated products.

The music, theater and opera sector, which is mainly led by the music component, experienced a reduction in value added during the period 1998-2003 that can be attributed mainly to piracy which has weakened the local industry. However, also relevant is the increase in imports reported during the period, which raises questions about local costs of production, the strength of the local industry and its future. Productivity is

³⁹ Lazcano, Norma. *CIE segundo acto en Revista Expansión*. www.expansion.com.mx

⁴⁰ AMPROFON. *Puntos Relevantes del Mercado Discográfico Mexicano 2005* at www.amprofon.com.mx

also an issue, as in spite of the reduction in value added, employment levels have increased during the period of observation. Last but not least, there is the question of law enforcement. Mexico is a country with a more-than-adequate legal framework for protecting copyright, but its law enforcement system invalidates this if it is unable to protect basic rights.

5.3. Motion picture and video

In Mexico the motion picture industry is faced with important challenges. This is particularly true since the structural changes experienced by the industry during the 1980s.

The Mexican film sector, which during its “Golden Years” reported significant growth and prestige worldwide, later underwent a drastic contraction process due to excessive government control both in the areas of production and distribution.

“The era of prosperity that coincided with the so-called “Golden Era” (1925-1955) started to decline at the end of the 1950s as a result of a series of adverse factors: the first being the contraction of the domestic market by the penetration of foreign products; the second being the arrival of television. The third and last factor, which had the most serious repercussions, was the gradual loss of Spanish-speaking markets, with a consequent drop in foreign income.”⁴¹

The experience left the Mexican film industry with a serious reduction in production levels and low costs above quality were promoted. Naturally, audiences reacted to this by changing their consumption habits in favor of foreign productions.

At the beginning of the 1990s, after more than 30 years of industrial recession, the state-owned screening company COTSA was sold, *Estudios Churubusco* underwent a significant reduction in size and the distributing companies *Continental de Películas*, *Nuevas Distribuidoras de Películas y Películas Mexicanas*, as well as *Publicidad Cuauhtémoc*, *Corporación Nacional Cinematográfica* (CONACINE), CONACITE production companies and *Banco Cinematográfico* went into liquidation as part of a global rationalization of government activities that sought to limit its role to that of stewardship. Thus, IMCINE was created to incorporate both the state distribution and financing roles.

These structural changes, added to low levels of investment in the sector and reduced demand, resulted in the fall of the nation’s cinematographic production. In response to this, the authorities and the cinematographic community took a series of steps to support the reactivation of the industry.

In 1992, both the cinematographic community and the government decided to end ticket price controls which had been in effect since the early 1950s and submitted to Congress the *Ley Federal de Cinematografía* (Federal Cinematography Act), which was approved on December 29, 1992. Throughout this year, 189 film production companies closed as well as most movie theaters.

Two years later, the construction of the first theater complexes by Cinemark started in Aguascalientes and Monterrey. In that same period, *Cinemex* opened its first complex in Mexico City. Simultaneously, *Organización Ramirez* opened its first multiplex under the name of *Cinépolis*.

⁴¹ Fernández Violante, Marcela, *Agonía y Resurrección del Cine Mexicano* presentation made during the FIU Conference on World Cinema, Miami, January 2002.

In 1997, the federal government granted 135 million pesos to the *Fondo de Producción Cinematográfica* (Fund for Cinematography Production, FOPROCINE), a funding body for film production seeking to respond to the needs of the movie-making community by establishing an environment favorable for the reactivation of the Mexican movie industry. FOPROCINE started funding festival-type films with a more cultural and formal focus showing a less immediate return on investment but having a higher cultural impact. For funding projects with more commercial potential, the FIDECINE was constituted.

Additionally, a new *Ley de Cinematografía de 1998* (1998 Cinematography Act) was passed that established a 10 percent mandatory screen allocation for local films allowing in theory the possibility for national films to be shown within six months of being registered.

In summary, during the 1990s, the motion picture industry experienced a liberalization process that facilitated the entry of new companies dedicated to film screening; new complexes emerged in the main Mexican cities leading to greater competition among participating companies within the industry. Table 5.5 and Chart 5.8 clearly reflect this new era of growth in the industry in terms of access to the movies.

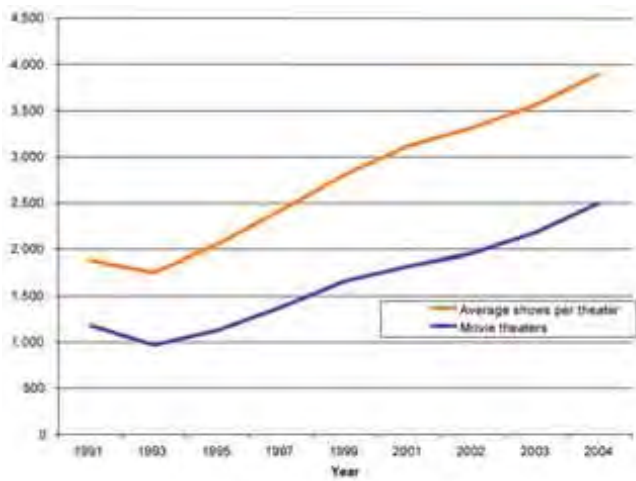
As regards demand, Chart 5.9 shows the initial enthusiasm of moviegoers when the new complexes opened. This then decreased as a result of the fall in household income after the 1994 recession.

Table 5.5. Movie Theaters, Screenings and Tickets Sold. 1991-2004

Year	Movie Theaters a/	Screenings (Average per Theater)	Tickets sold by Theater (Thousands)
1991	1,177	706	96
1993	967	778	76
1995	1,126	921	62
1997	1,378	1,040	58
1999	1,659	1,143	54
2001	1,817	1,296	54
2002	1,951	1,355	54
2003	2,178	1,384	45
2004	2,500	1,396	49

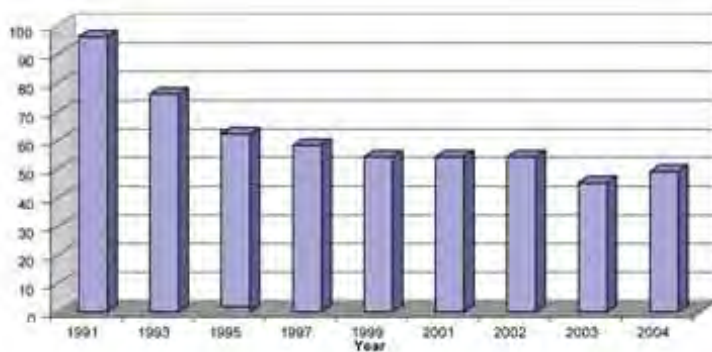
a/ This figures are related only to the premises reporting data
Source: INEGI. *Estadísticas de Cultura*

Chart 5.8. Movie Theaters and Screenings per Theater



Source: INEGI

Table 5.9. Tickets sold per Theater Thousands of Tickets



Source: INEGI

However, the period of growth of movie theaters and complexes was not matched by growth in film production. From 1990 to 2002, there were only 151 state-financed full-length motion pictures, with productions costs and lack of investment the main reasons for the reduced number of local productions. Technological innovations such as the possibility of using digital video for filmmakers, who have found that this format lowers costs, are being slowly introduced but the lack of funding is still the constant in the sector. As shown in Table 5.6, the national film industry share is still very limited despite the various promotion initiatives, with the US film industry dominating Mexican movie theaters.

Table 5.5. Movie Theaters, Films Screened and Percentage Distribution of Films by Country of Origin, for Selected States: 2002, 2003 and 2004

Federal State	MovieTheaters a/	Films Screened	Percentage Distribution by Country of Origin			
			US	Mexico	Other Countries b/	Co-production
2002						
United States of Mexico	1,951	64,975	82.3	8.7	7.3	1.7
Coahuila	75	2,376	90.6	6.7	2.2	0.5
Chihuahua	38	1,079	79.5	9.5	9.5	1.5
Distrito Federal	454	14,950	70	13.5	12.6	3.9
Jalisco	112	2,978	78.5	9.7	9.7	2.1
México	152	4,737	79	10.3	9	1.7
Nuevo León	175	6,696	92	3.1	3.5	1.4
Tamaulipas	160	4,403	91.6	6	2.2	0.2
Veracruz	106	3,391	87.1	8.1	4.6	0.2
2003 c/						
United States of Mexico	2,178	73,144	81.7	8	8.4	1.9
Coahuila	107	3,723	89.5	7.8	2.3	0.4
Chihuahua	37	1,228	85.3	7.4	6.3	1
Distrito Federal	446	15,192	68.6	11.7	15.5	4.2
Jalisco	111	3,160	74.1	8.7	13.9	3.3
México	213	6,350	75.5	9.7	12.4	2.4
Nuevo León	177	7,097	93.5	2.8	3.1	0.6
Tamaulipas	153	4,672	92.3	5.7	1.8	0.2
Veracruz	150	5,047	91.8	5	2.9	0.3
2004						
United States of Mexico	2,500	82,050	81.2	7.4	9.1	2.3
Coahuila	111	3,527	90.3	5.6	3	1.1
Chihuahua	133	4,601	89.7	7.3	2.6	0.4
Distrito Federal	459	15,029	64.9	11.3	17.5	6.3
Jalisco	186	4,099	73.1	9.2	14.2	3.5
México	213	6,446	74.1	9.4	13.1	3.4
Nuevo León	264	10,303	91.9	4.1	3.5	0.5
Tamaulipas	152	3,988	90.7	5.2	3.9	0.2
Veracruz	136	4,871	90.4	5.2	4	0.4

a/ The figures refer only to premises that report data.
b/ Includes Germany, Argentina, Brazil, Spain, India, the UK, Italy, Japan, Russia and Sweden, among others.
For this year, the States of Chihuahua, Durango and the Federal District excluded cinematographic premises belonging to GABAL c/ S.A. de C.V.

Source: INEGI

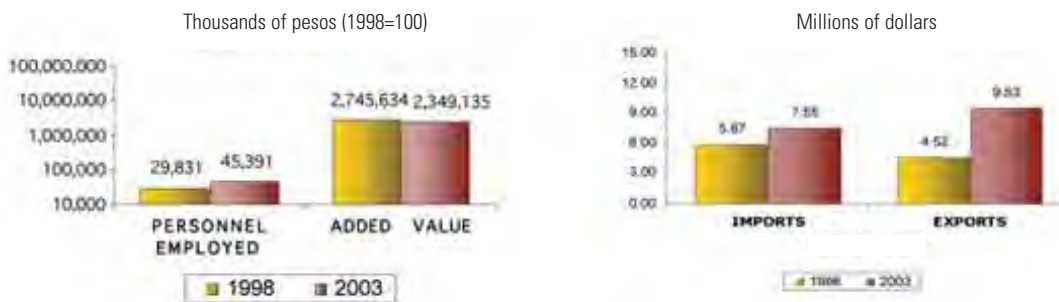
For video production, the new complexes started to attract the middle classes who had stopped attending movie theaters during the 1980s. In contrast, the more popular movie theaters which had operated during the 1970s and 1980s closed as they were unable to compete with the new multiplexes.

This local factor added to the global phenomenon of bringing entertainment to the home supported the growth of the home video market. A survey by the OAS⁴² reported a 43.5 percent household penetration of videos in 1997, with 1.7 million VCRs reported in these households. Given the high costs of film production, the more traditional filmmakers chose the video alternative to continue producing sexy soap operas, thrillers and a few political critiques.

By the end of 2003 the film and video industry reported a total of 45,391 employees and a value added of 3,726,619 pesos, which represented 8.1 percent and 4.43 percent of CBI totals respectively. With regard to its contribution to the foreign trade of the core industries, this sector reported US\$7.55 million in imports and US\$9.53 million in exports, representing 1.34 percent and 4.33 percent respectively.

However, if we compare the value added figure to that for 1998, we find that in real terms, the industry contracted during the period. This is the result of many factors which together have diminished the sector's opportunities:

Chart 5.10. Film and Video: Economic Indicators 1998-2003



Source: INEGI, BANCOMEXT

Investment in the sector is almost non-existent due to a high risk–low return perception by investors.

- The lack of risk capital limits local production and producers have scarce resources available for marketing, which is necessary to compete with foreign productions.
- The limited perspective at the box office drives movie complexes and theaters to reduce screening opportunities for local productions.
- Due to the lack of employment opportunities, directors, screenwriters and other film professionals tend to look for opportunities abroad or in other fields such as marketing and television.

⁴² OAS, *Cultural Industries in the Latin American Economy: Current Status and Outlook in the Context of Globalization*.

In addition to this, and as part of the general challenge faced by the CBI in Mexico, the piracy phenomenon has become a real threat to the industry. According to a survey commissioned by the Motion Picture Association of America,⁴³ piracy in Mexico accounts for an estimated 62 percent loss of potential sales, ranking Mexico as the country with the highest rate of loss in terms of revenue generated by cinematographic companies affiliated to MPAA.

5.4. Radio and television

The first radio transmissions in Mexico date back to the early 20th century. In 1930, Emilio Azcárraga Viduarreta founded *XEW*, which became the basis for a national network chain to begin the process that would make radio the communication medium *par excellence* in our country at that time.

In the 1940s, large chains offering national coverage appeared and, together with radio-soaps, they attained maximum audience rating levels. By the end of the decade, the first news broadcasts were established. In 1946, the first experimental television studio was opened and in 1950, the first commercial television transmissions began with Channel 4, which was licensed to Rómulo O'Farril. Within a year, Channel 2 started operations and Channel 5 merged with Channel 4 to constitute the *Telesistema Mexicano Company*. From then on, the launch of broadcasting companies commenced rapidly to ensure nationwide coverage.

Between 1959 and 1973, more TV channels appeared and in 1963, color television transmission began with the arrival of the first microwave live international transmissions. It was in this year that *Telesistema Mexicano* and *Televisión Independiente* merged to form *Televisa*, which grouped Channels 2, 4, 5 and 8.

In 1985 Imevisión was created and operated Channels 13 and 7, as well as regional channels: 22 in Mexico City, 8 in Monterrey, 2 in Chihuahua and 11 in Ciudad Juárez. At the beginning of the 1990s, Channels 13 and 7 were privatized and became the *Televisión Azteca* network, and Channel 22 remained a public television channel whose cultural contents are coordinated by CONACULTA.

During this process, the growth of radio broadcasting was maintained and from the 1980s the diversification of content based on types of audiences began.

As regards cable television, *Cablevision*, a subsidiary of *Televisa*, was founded in 1969 offering cable television services in Mexico City; its growth was modest but steady up to the 1980s, when it started to gain in importance.

In 1989, a new subscription television system emerged: microwave pay television or Multipoint Multi-Channel Distribution System. *MVS Multivisión* started operating this system and was followed by *Teleglobo*, which operates licenses in Monterrey and Guadalajara. Finally, satellite television was launched in 1996 with *DirectTV* and *Sky*, also part of the *Televisa* group which now controls the satellite television market.

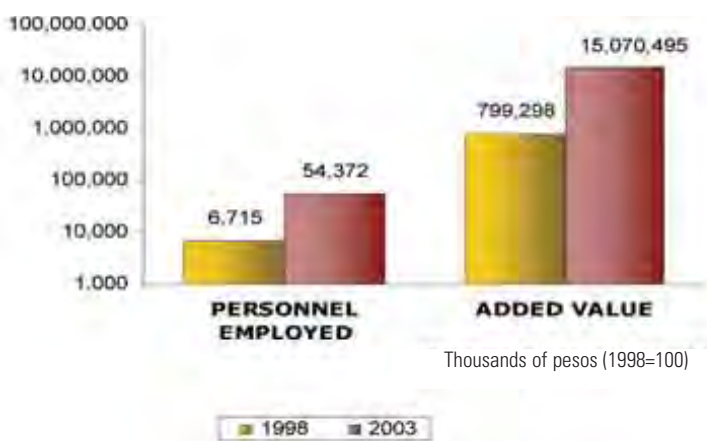
⁴³ MPAA. *Worldwide Study of Losses to the Film Industry and International Economies due to Piracy: Piracy Profiles 2005*.

This process of emergence and consolidation of the radio and television industries has resulted, according to the Ministry of Communications and Transport, in 1,471 radio stations operating in 2003, where the main radio broadcasting groups are: *Rádiorama* with 190 stations, *Grupo Acir* with 190, *Radiocima* with 92, *Organización Impulsora de Radio* with 89, and *Sociedad Mexicana de Radio* with 77.

In the case of free television, Mexico reported 721 television channels in 2003 with a total of 19.5 million households owning at least one television set.

This industry has shown important growth during the study period. In terms of employment, it went from 6,715 in 1998 to 54,372 employees in 2003, an increase that represents almost a 12 percent contribution to the total. Likewise, the value added generated by this industry was 15,070,495 pesos in 2003, which positioned the sector in second place, with 28.42 percent of the total value added generated by core CBI (see Chart 5.11).

Chart 5.11. Radio and Television: 1998 -2003 Economic Indicators

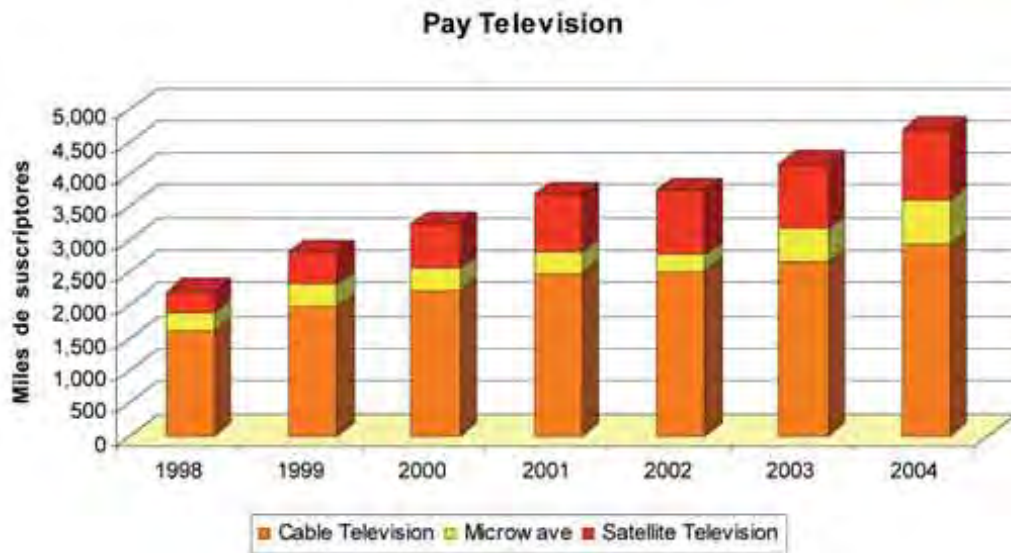


Source: INEGI

In terms of pay television, in 1998 there were 2,213,000 subscribers, according to the Ministry of Communications and Transport, and after an annual average growth of 35 percent, by the year 2004 the number of users increased to 4,687,000 in Mexico.⁴⁴

⁴⁴SCT. *Anuario Estadístico 2004*.

**Chart 5.12. Number of Restricted TV Users
1998- 2004. Thousands of Subscribers**



Source: SCT. Anuario Estadístico 2004

As for content, a survey conducted in 2000 by the media industry in Spanish-speaking countries revealed that five companies accounted for 90 percent of movies, video and television exports. *Televisa*, the largest Mexican media firm in Mexico, was among them, generating 50 percent of the total exports.

However, the region is still an importer of audiovisual products, with a trade deficit estimated at US\$22.7 million in 1997. The main product in the region is the soap opera, which represents 80 percent of all television exports. This genre has led to important regional alliances in the areas of co-production, exchange of actors, technicians, directors and scriptwriters.

In summary, the radio and television sector is one of the sectors reporting greater growth within CBI. It has managed to integrate a series of media services that are highly attractive to the population, especially television which is the main source of entertainment and information for the average Mexican.

The sector is also highly concentrated in just a few industrial groups. In the case of television, two groups (*Televisa and Grupo Azteca*) control the local market which greatly increases their negotiating power with suppliers, creators and the government.

5.5. Software and databases

The software industry in Mexico, according to experts, is characterized by the prevalence of family or informal management structures with a reduced number of professional employees. In addition, sector dispersion persists, so at present the exact number of companies dedicated to the development of products and information systems services is not precisely reported.

Mexico moved into the IT world later than its counterparts in the OECD, mainly due to limited resources by firms and governmental institutions as well as a limited communications network and no capacity as regards human capital for the development of hardware and software. Therefore, the origins of the software industry were marked by the need to create support and promotion policies, as well as to develop human resources. With this in mind, the *Asociación Nacional de la Industria de Programas de Cómputo* (ANIPCO) (National Association of Software Industry) was founded to consolidate the software sector, along with other associations involved in IT development countrywide.

However, during the first few years, government participation in the development of the sector was limited to such an extent that during the period 1992-1999 the relative expenditure in software barely reached 0.1 percent and no clear government support was awarded for the development of this sector.

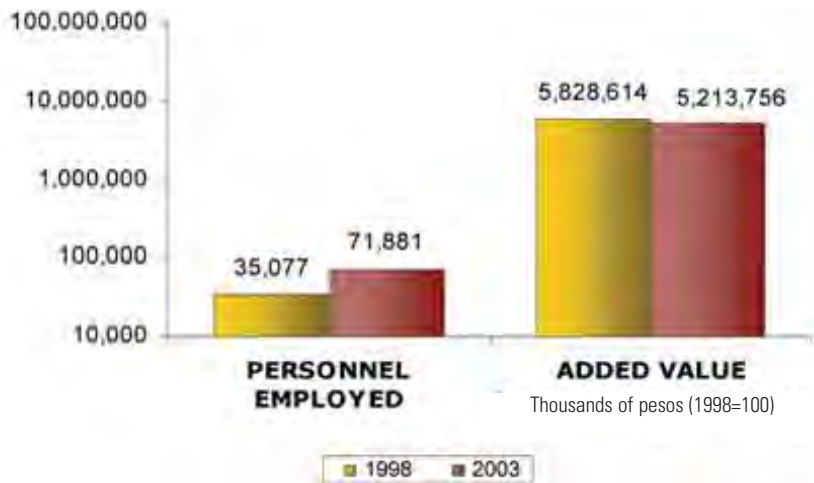
Since 2000, the government with the support of the industry, decided to launch the Software Industry Development Program with the purpose of channeling efforts for the consolidation of the sector through the creation of world class firms and the training and education of high quality employees.

“The software industry in Mexico is estimated at around 300 firms of which 90 percent fall into the small firm category and only 20 percent of the total is legally constituted. As regards capital origin they can either be subsidiaries of multinationals, wholly Mexican, or a combination of both. In general the sector lacks a formal structure with improvised marketing and contracting schemes. In addition, they tend to provide a limited set of services to very diverse sectors.”⁴⁵

The software and database industry shows continuous growth in importance within the CBI, and in their economic contribution during the study period. In 2003, this industry employed 71,881 workers that represented almost 13 percent of the CBI total employment. Likewise, their contribution in the generation of value added amounted to 8,270,994 pesos, representing 9.83 percent of the total generated in the same year. Nevertheless, despite the consistent growth in employment, the industry's value added reported an 11 percent drop in real terms when compared to that of 1998. These figures reflect an important reduction in productivity, but also highlight the challenge that the industry faces if it wishes to be competitive at the international level.

⁴⁵ Peñaloza Baez, Marcela, *La Industria del software: una oportunidad para México en www.enterate-unam.mx*.

**Chart 5.13. Software and Databases:
1998 – 2003 Economic Indicators**



Source: INEGI

Finally, a set of long-term goals for the year 2013 have been established for the sector, among which the most relevant are:

- To reach an annual software production of US\$5,000.000.
- To match the rest of the world's average expenditure in information technology.
- To transform Mexico into the leader in software development for the Latin American and the Spanish-speaking worlds.

The achievement of these goals requires Mexico to provide support in the areas of: export promotion; improvement of educational schemes for the training of human resources in software development; the promotion of legislative changes to support the industry and the development of the domestic market, as well as the development of more effective and efficient communication networks with countrywide coverage.

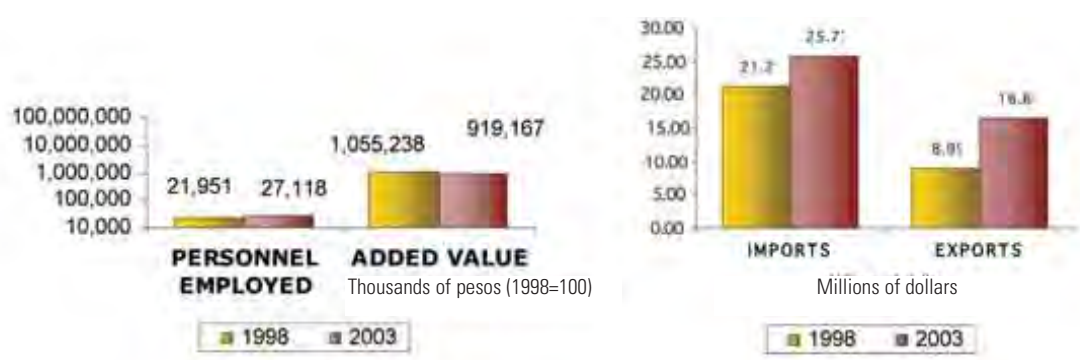
5.6. Photography, graphic and visual arts

The photography sector stands out for the youth of the discipline, as well as for a very recent acceptance of deserving copyright protection. Its newness, added to its structure which integrates more independent workers than formal businesses, explains the limited statistical reports available for the sector. Its economic contribution within core CBI is quite modest, with 27,118 employees, representing 4.89 percent of the total employed, and 1,458,148 pesos in value added; that is 1.73 percent of the value added generated by core CBI in 2003.

On the other hand, based on the high import component of this sector's productive chain in matters of foreign trade, the photographic industry occupies second place in importance, with US\$25.77 million in imports for 2003 compared to US\$16.6 million in exports, representing a 4.72 percent of imports and 7.54 percent of exports, respectively. These figures generated a trade deficit of US\$9.17 million for the photographic sector.



Chart 5.14. Photography: Economic Indicators 1998 – 2003

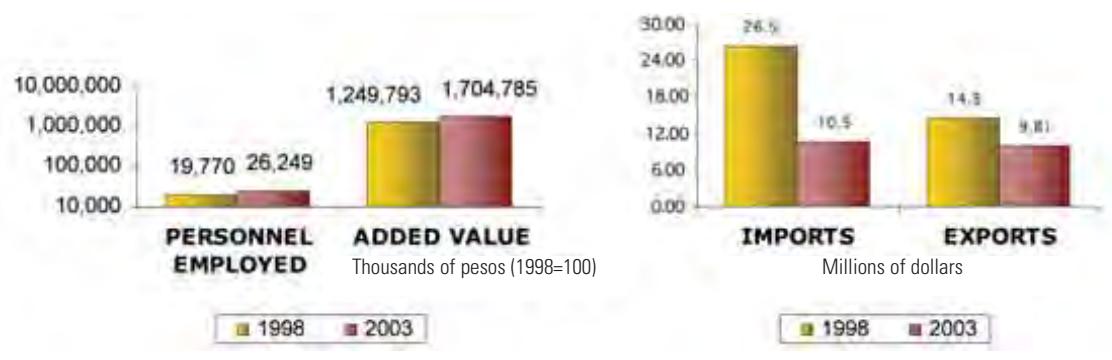


Source: INEGI, BANCOMEXT

The challenges faced by this sector may be summed up as the broadening and opening of exhibition, creation and promotion spaces⁴⁶ and the development of educational campaigns regarding the value of photography as an artistic creation and therefore, subject to copyright. It is a perception that the industry's greatest challenge lies in the public attaching real value to it and understanding the protection it warrants.

Graphic and visual arts constitute an industry whose economic contribution with respect to core CBI is relatively small. Its 26,249 employees and 1,704,785 pesos represented 4.7 percent and 3.21 percent of the corresponding totals in 2003. As to trade balance, its performance showed a drop; its US\$10.57 million in imports and US\$9.87 million in exports represented only 1.94 percent and 4.49 percent respectively.

Chart 5.15. Graphic and Visual Arts: Economic Indicators 1998-2003



Source: INEGI, BANCOMEXT

If we take into consideration the valuable cultural Mexican tradition in the visual and graphic arts sector, we can expect to maintain the positive growth trend for the industry with programs for proper promotion and support that go beyond the conservation of cultural heritage and move towards an industrial promotion strategy focused on export market potential.

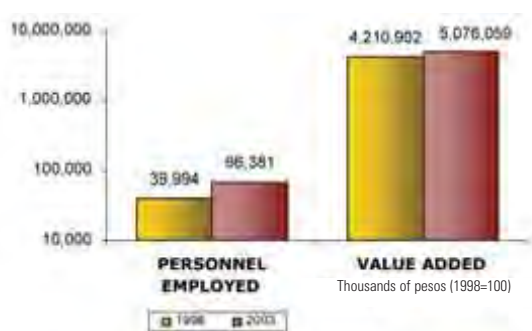
⁴⁶ www.fotoperiodismo.org.mx.

5.7. Advertising services

Mexico has more than 300 advertising agencies which comprise both large multinational companies offering a broad range of advertising services, public relations and marketing at international level and small companies, tending to specialize in niche markets or products.

According to experts, the Mexican advertising industry has great potential, based on the diversification of its services and the utilization of new promotion technologies. During 2003, this industry generated 66,381 new jobs and 5,076,059 pesos in value added, figures that represent 11.98 percent and 9.57 percent of the total value generated by the CBI in that year.

Chart 5.16. Advertising: Economic Indicators 1998 – 2003



Source: INEGI

In terms of investment, the industry has concentrated on television. According to the *Cámara de la Industria de la Radio y la Televisión* (Chamber for the Radio and Television Industry), television received 70.9 percent of private advertising investment in 2004 compared to 12.3 percent allotted to radio and 6.3 percent to print media.

Table 5.7. Investment in Advertising. 2003 – 2004
Millions of Pesos

Media	2003		2004	
	Advertising Investment per Outlet	% of Total	Advertising Investment per Outlet	% of Total
Television	18,570.45	70%	18,982.74	70.9%
Radio	3,183.50	12%	3,293.20	12.3%
Press	1,857.04	7%	1,686.76	6.3%
Journals/Magazines	1,326.46	5%	1,070.96	4.0%
Outdoor events	795.88	3%	990.63	3.7%
Movies	530.58	2%	508.70	1.9%
Internet	265.29	1%	240.97	0.9%
Total investment	26,529.20		26,529.22	

Source: CICOM-PRICE WATERHOUSE COOPERS

However, Mexico's level of investment is still very low (0.46 percent of GDP) when compared to other countries like Chile (0.8 percent), Spain (0.5 percent) or Brazil (1.52 percent).

Table 5.8. 2004 Advertising Investments: International Comparison
Millions of US\$ and Percentage of GDP

Country	Advertising Investment (Millions of US\$)	% of GDP
US	156,389	1.39
Canada	5,573	0.69
Brazil	7,265	1.52
Spain	5,298	0.75
Chile	607	0.8
Mexico	2,600	0.46

Source: AMAP

Recently, the *Asociación Mexicana de Agencias de Publicidad* (Mexican Association of Advertising Agencies) established a quality standard for those agencies, based on the concept of self-regulation.

The demand for advertising agencies has risen significantly in the past two years, but it is facing two important challenges: diversification in areas that may offer greater effectiveness for the investment made and a greater utilization of information technology for higher impact.

5.8. Copyright collecting societies

The emergence of Mexican copyright collecting societies as such occurred in 1997. These were previously known as authorial societies and were the result of the new Copyright Act. Within this framework, the copyright collection society is defined as a legal not-for-profit entity constituted under the protection of the law with the purpose of protecting authors and rights holders both national and foreign, and collecting and delivering the amounts that could be obtained in their favor as a result of copyright or any related rights.

In Mexico, compliance with the provisions and requirements established by the law is essential for an association to receive an authorization to operate as a collecting society. This society's accounts may be examined at any time by the *Instituto Nacional de Derechos de Autor* (National Copyright Institute), the public body responsible for monitoring developments.

At present, there are 13 collecting societies in Mexico, which is the country with the largest number of entities of this type worldwide (see Table 5.9). They are characterized by great diversity in members, managerial strength and management and negotiating capacity.

Among the foremost are SACM, SOGEM and ANDI, both for their negotiating capacity with entrepreneurial and governmental bodies and for the high profile of their membership. However, there are others whose main collection purpose is simply not met, due to their small size, lack of resources to enforce payment and lack of public awareness about copyright legislation.

There is no official disaggregated data available to measure their economic participation and the data reported in the economic census generates negative values for the value added variable given the non-profit nature of collecting societies and other associations integrated into the class reported.

Table 5.9. Copyright Collecting Societies 2006

Sociedad de autores y compositores de Música (SACM), S.G.C. de I.P.
Sociedad General de Escritores de México (SOGEM), S.G.C. de I.P.
Sociedad Mexicana de coreógrafos (SOMEK), S.G.C. de I.P.
Sociedad Mexicana de Autores de las Artes Plásticas (SOMMAP), S.G.C. de I.P.
Sociedad Mexicana de Directores, Realizadores de Obras Audiovisuales S.G.C. de I.P.
Centro Mexicano de Protección y Fomento de los Derechos de Autor (Cempro) S.G.C. de I.P.
EJE "Ejecutantes" S.G.C. de I.P.
Sociedad de autores de Obras Visuales Imagen del Tercer Milenio S.G.C. de I.P.
Sociedad Mexicana de Productores de Fonogramas, Videogramas y Multimedia (SOMEXFON), S.G.C. de I.P.
Sociedad Mexicana de Autores de Obras Fotográficas (SMAOF), S.G.C. de I.P.
Unión Iberoamericana de Humoristas Gráficos (UNIHG), S.G.C. de I.P.
Sociedad Mexicana de Ejecutantes de Música (SOMEN), S.G.C. de I.P.
Asociación Nacional de Interpretes (ANDI)

Source: INDAUTOR

In general, all these societies face an important challenge in collecting payments. This is due to a variety of factors, among which the following may be highlighted:

- Lack of awareness on the part of citizens of the legislation and payment obligation to these societies. The overall weakness of the Mexican legal framework in this matter leads to a lack of knowledge by companies and individuals of the obligations they have to fulfill in regard to copyright. This lack of awareness derives from costs not being incorporated when making investment decisions.
- Legal weakness in imposing compliance of these obligations, as well as weaknesses within the collecting societies *vis à vis* the companies committed to pay for these rights. In general, collection societies deal with powerful companies and professional groups with whom it is very difficult to negotiate, to legally challenge or from whom to demand payment of royalties.
- Fragmentation of this universe of collection societies, resulting in diminished performance and managerial capacity.
- Reluctance to pay copyright fees by the users of works, who take advantage of the chaos caused by the multiplicity of collection societies as a defense. This multiplicity generated by Mexican legislation leads, on the one hand, to a diverse set of copyright collectors faced by any one firm or business, and on the other, to a wide range of rates for the use of the same work. This situation creates a highly uncertain business environment, in view of which the entrepreneur seeks to protect himself by not paying.

This state of affairs has led to a proposal for changes to the legislation in order to allow the creation of a one-stop window for tariff payment, as well as to set fixed rates. These legislative initiatives have not yet obtained sufficient support for their approval, but several instances express themselves in their favor in order to strengthen the copyright legal framework as well as reduce payment evasion.

The strengthening of copyright collecting societies constitutes an essential element for the development of copyright-based industries, but it should be achieved through general public awareness and information campaigns, as well as through the strengthening of legal structures and compliance of stakeholders.

Summary

The objective of the present chapter is to present a brief overview of some of the core copyright-based industries. It is not our aim to review exhaustively the history and present situation of each of the sectors, but simply to give the reader further insights into the Mexican copyright-based industries so as to understand the challenges and opportunities faced in their development and consolidation.

Copyright-based industries cover a great diversity of sectors and activities whose development has resulted in the rich cultural traditions and the great creativity of its population. Some sectors have enjoyed government support while others have been left to develop on their own, either through strong foreign participation or through the efforts of authors and creators committed to their work.

The consolidation process of copyright in Mexico represents an opportunity to strengthen the core industries which have a significant potential for growth, particularly in those sectors that have the support of government and the capacity to export.

In general, we can conclude that core copyright industries are limited in their growth potential due to some or all of the following circumstances:

- Investors have traditionally considered these industries as part of the non-profit cultural sector and therefore find them unattractive.
- Cultural activity has been considered a government prerogative, which has made some CBI less commercially-oriented and this has therefore confirmed investors' perceptions.
- The employment structure favors freelance and seasonal employees and therefore leaves most professionals without a social security net during their working life. This reduces creative capacity as more time must be spent in survival than in production.
- Most sectors have seen a rise in imports and a reduction of local content which can be explained by the higher cost structures of the Mexican economy and the preference of consumers for imported goods. Especially relevant is the fact that technological innovations have been introduced into these industries through imports.
- Copyright-based industries are particularly sensitive to overall economic conditions. A zero or slow growth rate in the Mexican economy as experienced during the 2000-2006 administration weakens CBI.
- Piracy represents one of the greatest problems for these industries. The lack of a formal judicial law enforcement program and the alleged ignorance of consumers is fertile ground for the growth of an informal market that aggressively competes with the formal sector and is justified by the general public as a social redistribution of income.

In the next chapter we will set out the opportunities and challenges faced by the Mexican copyright-based industries and offer a set of recommendations for the strengthening of what we consider one of the core sectors in the Mexican economy, not only because of its economic potential but also as a manifestation of the cultural wealth of the country.

Chapter VI. Conclusions and Recommendations

This survey represents a comprehensive, systematic and methodical study which aims to identify and estimate the importance of copyright-based industries within the Mexican economy. The general findings of this report support the conclusions made by other country studies on the importance of strengthening the legal framework for copyright-protection to protect and promote the creation of protected works and in that way foster an adequate environment for the consolidation of these industries (consolidation in the sense of creating conditions that would attract private and public investment, generate quality employment and the promotion of exports).

The present study is the first to compare the performance of Mexican copyright-based industries in two different years (1998 and 2003) and it has therefore allowed us to evaluate how the CBI are affected by the general economic situation; i.e. the CBI are extremely sensitive to economic growth and changes in income. This is shown by the fall in economic contribution of the CBI from 5.15 percent (VA/GDP) in 1998 to 4.77 percent in 2003 which can in part be explained by the low or almost zero growth of the economy.

Another factor that should be taken into account when analyzing this fall in contribution is how government policies during the Fox administration weakened their performance by fostering the growth of the informal sector through the promotion of self-employment alternatives to formal employment, by following a cultural policy that not only reduced government subsidies and general support to the cultural sector but also reinforced the traditional idea of culture as a quaint but non-profit-making activity.

As regards employment, Mexican copyright-based industries are an important employment generator but greater attention must be given to the training of workers in order for them to be able to improve the productivity of the CBI and enable them to adapt and profit from technological innovations. As long as these industries continue to promote freelance and temporary employment versus permanent employment, human capital will continue to become a scarce resource due to the drain of CBI professionals, either to other countries or other industries, due to the lack of a social security safety net. This is a situation that affects the Mexican economy in general but has a greater effect on the CBI given the nature of these industries.

Finally, as regards the importance of the CBI in foreign trade, Mexico is highly dependent on imports especially since the signing of NAFTA which introduced foreign competition with more efficient cost-structures and saw the disappearance of small and medium-sized enterprises. In the last ten years, industrial sector participation has reported continuous shrinkage as it is unable to compete with foreign companies. This has also led to a change in structure of the economy from predominantly industrial to a service-based economy.

In general, the authors agree on the potential of copyright-based industries as an important pillar in the future growth of the Mexican economy. Cultural richness, the creativity of its population and international interest in Mexico's cultural heritage based on the years of regional leadership of our country mark a competitive advantage that can support this idea. However, this potential will disappear if action on several fronts is not taken:

- As mentioned earlier, copyright-based industries require an adequate legal environment if they are to prosper. Mexico has a strong legal framework as regards copyright protection, but its enforcement system is extremely weak. The authorities must strengthen the rule of law and ensure that creators are effectively protected by it. Achieving this is the first step in the consolidation of copyright-based industries.

- An effective enforcement system must fight piracy on all fronts. While piracy continues to be seen benevolently by consumers and political groups, no effective copyright protection will be achieved. The fight against piracy must on the one hand be achieved judicially and on the other, public awareness campaigns must be permanently in place to educate the population on the importance of respecting the law and how piracy affects everyone.
- The present survey has attempted to measure the economic contribution of copyright-based industries in Mexico. However, the limited availability of full statistical information makes any estimation only a first step to accurately measuring the economic contribution of these industries. In the case of Mexico, satellite accounts have recently been created for the tourism and housing sectors. If we wish to accurately measure the participation of copyright-based industries, a satellite account of that sector must be created. This will not only allow for correct estimating but also support decision-making as regards sector-promotion policies.
- Government, the private sector and academia should promote an environment that embraces technological innovation and also benefits from it. Policies that increase communication network coverage and education to build human capacity in IT, communication and the knowledge economy will help economic growth in general and the CBI specifically.
- Copyright-based industries cover such diverse activities that it is impossible to make overall recommendations regarding public policies apart from those already mentioned. Undoubtedly, Mexico cannot be competitive in all of them, but with proper statistical information, priorities could easily be set and policies targeted more accurately at those areas where the greatest economic benefits could be achieved.

Mexico is now in transition with a new presidential administration coming into office in December 2007. It is hoped that some of these recommendations will be considered and that upcoming surveys will be able to take the present findings a step further with deeper and more accurate research that can better explain the economic relationships and capacities of copyright-based industries and help consolidate them in favor of greater economic growth and development thus helping to improve the living conditions of the Mexican population.

References

A Market for ideas, *The Economist* [online]. October 2005.

http://www.economist.com/printedition/displaystory.cfm?story_id=5014990.

ACUERDO por el que se da a conocer la resolución respecto a los proyectos de giros industriales que se indican, published in *Diario Oficial de la Federación*, July 12, 2000.

ALAVEZ, José Manuel. *Entérate de qué es la CANIE*. [online] México: IMCP, 2006.

<http://portal.imcp.org.mx/content/view/824/200/>.

ANÁLISIS de implicaciones y beneficios de los esquemas fiscales: Informe ejecutivo [online]. Mexico: PriceWaterhouseCoopers/ CANIEM. <http://www.caniem.com/docs/estadistica/pcw-industriaeditorial.pdf>.

ARANDA, Juan and MONTAÑO, Leticia, *44 años de lucha. Memoria*. México: ANDI, 2001.

AYALA, Diego, *Falta de lectores: debilidad de la CANIEM*. *Revista Impresión Digital*. March, 2005.

BANCOMEXT. *World Trade Atlas-México. Banco de Comercio Exterior*.

BARBER, Ricardo and BARBER, Carlos, *La evolución de la industria de los videojuegos*. [online] México: IMCP, 2006. Available on <http://portal.imcp.org.mx/content/view/830/200/>.

BSA and IDC, *Tercer estudio anual mundial de piratería de software*. BSA (Business Software Alliance), Washington: May 2006.

CABALLERO LEAL, José Luís, *Derecho de autor en la nueva era digital, la industria del libro, de la música y del audiovisual: tendencias, creative commons*. In: *Jornadas de derecho de autor* (1º: 2005: Ciudad de México, México). México: WIPO, INDAUTOR. 2005.

CABALLERO LEAL, José Luís, *Breve comentario a la reforma realizada en julio de 2003 a la ley federal del derecho de autor en México*. *Conservatorianos* [online]. March-April 2004, no. 8. <http://www.conservatorianos.com.mx/web/Conservatorianos%208%20para%20web/caballero8.pdf>.

CANIEM, *Actividad Editorial Libros*. CANIEM: México, 2004.

CANIEM, *Actividad editorial. Publicaciones periódicas 2004-2005*, México, March 2006.

CENTRO Mexicano de Protección y Fomento de los Derechos de Autor, Sociedades de Gestión Colectiva. [online]. 2002-2005. <http://www.cempro.com.mx>.

CeMPRO, *Dossier de prensa*. February 2006. [online]. <http://www.cempro.com.mx>.

CISNEROS BELTRÁN, Juan Manuel, *Los derechos de autor y los medios informativos: un elemento esencial para el crecimiento económico de México*.

Constitución Federal de los Estados Unidos Mexicanos 1824. [online] <http://www.juridicas.unam.mx>.

COPYRIGHT. UNESCO/Culture, [online] <http://portal.unesco.org>.

DEL CORRAL, Milagros, *Información, educación, cultura y derecho de autor: en busca del equilibrio. Seminario Internacional sobre Derecho de Autor y Acceso a la Cultura*. (1º: 2005: Madrid). UNESCO, 2005. <http://www.ifrro.org/upload/documents/agmseminar2005Milagros%20del%20Corral.pdf>.

DOMÍNGUEZ, Roberto and MAROTO, Carlos, *La democratización de México y la nueva economía digital: una oportunidad histórica*. AMITI: México. [online] <http://www.lacoctelera.com/myfiles/clasedetecnologia/La%20democratizacion%20de%20Mexico%20y%20la%20nueva%20economia%20digital.pdf#search=%22maroto%20la%20democratizacion%22>.

EMERY, Miguel Ángel, *Derechos de los productores de fonogramas y la piratería. En: Seminario sobre delitos en materia de derechos de autor y derechos conexos*. (1º: 2005: México). WIPO, IMPI y IJF, 2005. [online]. http://www.ompi.int/edocs/mdocs/lac/es/ompi_da_mex_2_05/ompi_da_mex_2_05_1.pdf.

ENCUESTA nacional de prácticas y consumo culturale México: CONACULTA, 2006. ISBN: 970-35-0703-4.

ESCOBAR, Leopoldo, *Régimen fiscal de la industria del entretenimiento* [online]. México: IMCP, May 10, 2006, <http://portal.imcp.org.mx/content/view/828/198/>.

FERNÁNDEZ V., Marcela, *Agonía y resurrección del cine mexicano. In: The Current Role of Government in the National Film Industry* [online] (1º: 2002: Miami, EU). Miami, EU: Motion Picture Association. 2002. [online] http://www.mpa.org/mpa-all/FIU_Violante.htm.

FOTOPERIODISMO, [online] www.fotoperiodismo.org.

GARCÍA, María Isabel, FERNÁNDEZ, Yolanda, ZOFÍO, José Luis, *The Economic Dimension of the Culture and Leisure Industry in Spain: National, Sectoral and Regional Analysis*. Journal of Cultural Economics (27): 9-30, 2003.

GETINO, Octavio, *The Audiovisual Market in Latin America: from Image-Identity to a Latin American Audiovisual Arena*. Media Development [online]. May-August 1997, ISSN: 0143-5558. http://www.wacc.org.uk/wacc/publications/media_development/archive/1997_2/the_audiovisual_market_in_latin_america_from_image_identity_to_a_latin_american_audiovisual_arena.

GLICKMAN, Dan, *World Study of Losses to the Film Industry & International Economies due to Piracy: Pirate Profiles*. MPAA [online]. May 2006. [online] http://www.mpa.org/press_releases/2006_05_03leksumm.pdf.

GUÍZAR LÓPEZ, Víctor Manuel, *Industrias culturales y derecho de autor: oportunidades y desafíos*. En: *Jornadas de derecho de autor* (1º: 2005: Ciudad de México, México). México: WIPO, INDAUTOR. 2005.

HARTLEY, John, *Creative industries*. Oxford, UK, Blackwell Publishing, 2005.

HAW, Dora Luz and CÁRDENAS, Guillermo, *Aprueban precio fijo en libros. Reforma*: México, D.F., April 27, 2006. p.10.

HESMONDHALGH, David, *The Cultural Industries*, SAGE, UK 2005.

HERNÁNDEZ, Laura and LÓPEZ, Clara, *Piratería, el lado oscuro de la tecnología*. *Entérate* [online]. May 2006. <http://www.enterate.unam.mx/Articulos/2006/mayo/pirateria.htm>.

INEGI XV Censo Industrial. *Censos Económicos 1999*. Instituto Nacional de Estadística, Geografía e Informática. [online] <http://www.inegi.gob.mx/est/contenidos/espanol/proyectos/censos/ce1999/prodis.asp>.

INEG,. XVI Censo Industrial. *Censos Económicos 2004*. Instituto Nacional de Estadística, Geografía e Informática.

INDAUTOR, *Antecedentes del derecho de autor* [online]. México: INDAUTOR/SEP. http://www.sep.gob.mx/wb2/sep/sep_1516_antecedentes_del_der.

INSTITUTO Mexicano de Cinematografía, *Informe de labores 2005*. 2005.

INTERNATIONAL Business Strategies, *Advertising in Mexico*. IBS, May 2005, www.internationalbusinessstrategies.com.

KRAMER, Mark and KANIA, John, *Changing the Game: Leading Corporation Switch from Defense to Offense in Solving Global Problems*. Stanford Social Innovation Review [online]. Landhorne: Primavera 2006, http://www.ssireview.org/pdf/2006SP_feature_Kramer_Kania.pdf.

La Propiedad Intelectual y la Piratería: (una razón o cerrazón) la ausencia de respeto. En: *Cuarto Aniversario de la Biblioteca nacional de Ciencia y Tecnología*, Ing. Víctor Bravo Ahuja (4º: 2003: México) Mesa redonda 1. México: IPN/Coordinación General de Bibliotecas y Servicios de Información. 2003. [online], http://azul.bnct.ipn.mx/liv_aniv/mesa_red1.html.

LEO, Kah Mun, *The Contribution of Copyright-Based Industries in Singapore* [et al], Singapore: NUS Consulting/IPA, 2002 in *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*, WIPO, Geneva, ISBN 92-805-15553-5.

LEZCANO, Norma, *CIE segundo acto: A 15 años de reinventar el entretenimiento en México, CIE desafía la amenaza de la tecnología en el hogar y la fuerte presión de los mercados. Promete resultados, ¿le creerán?* *Revista Expansión* [online]. México, October 26, 2005, http://www.expansion.com.mx/login.asp?url=nivel2.asp?cve=927_27&xsl=print.xsl&y=1.

LUTTEROTH, Jorge, *2002 y 2003, años difíciles en la industria de medios y entretenimiento* [online]. México: IMCP, 2006 <http://portal.imcp.org.mx/content/view/830/200/>.

MAROTO, Carlos and ZAVALA, Jorge, *La industria del software en México*. México D.F.: IMITI. 2002.

MASTRINI, Guillermo and BECERRA, Martín, *Approach to the Latin American Television Model*. [online]. 2002, http://www.portalcomunicacion.com/bcn2002/n_eng/programme/prog_ind/asp4.asp?id_pre=568.

MATUTE, Pedro, *El cine digital, Razón y Palabra* [online]. February-March 2006, no. 49, ISSN: 1605-4806, <http://www.cem.itesm.mx/dacs/publicaciones/logos/anteriores/n49/bienal/Mesa%204/PedroMatute.pdf>.

MINISTRY of Culture of the Republic of Latvia. *The Economic Contribution of Copyright Based Industries in Latvia*: 2000. Riga, Latvia: SIA, 2005, in *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*, WIPO, Geneva, ISBN 92-805-15553-5.

MONETA, Carlos Juan, *Cultural industries in the Latin American Economy: Current Status and Outlook in the Context of Globalization*. [online]. Buenos Aires, Argentina: OAS, 2000, Latin American cultural industries: current status and outlook, <http://www.oas.org/main/main.asp?sLang=S&sLink=http://www.oas.org/oaspage/searchform.asp>.

MONROY, Rebeca, *La fotografía mexicana de ayer y hoy. México en el tiempo* [online]. July-August 1999, no. 31, http://www.mexicodesconocido.com.mx/espanol/cultura_y_sociedad/arte/detalle.cfm?idcat=3&idsec=14&ids_ub=55&idpag=2281.

OCEJO, Ana Gabriela, *La industria de entretenimiento en la BMV*. [online] México: IMCP, 2004, <http://portal.imcp.org.mx/content/view/910/200/>.

PACHECO, Humberto, *La relevancia de los activos intangibles en la Industria del Entretenimiento* [online]. México: IMCP, 2006, <http://portal.imcp.org.mx/content/view/826/199/>.

PANETHIERE, Darrell, *The Persistence of Piracy: the Consequences for Creativity, for Culture, and for Sustainable Development* [online]. UNESCO, April 2006, http://portal.unesco.org/culture/admin/file_download.php/piracy_e.pdf?URL_ID=30647&filename=11444010025piracy_e.pdf&filetype=application%2Fpdf&filesize=329484&name=piracy_e.pdf&location=user-S/.

PIEDRAS, Ernesto, *¿Cuánto vale la cultura? Contribución económica de las industrias protegidas por el derecho de autor en México*. CONACULTA, SOGEM, SACM, CNIEM, México, 2004. ISBN 968 7903 79 1.

PENYIGEY, Krisztina and MUNKÁCSI, Péter, *The Economic Contribution of Copyright-Based Industries in Hungary*, Hungarian Patent Office, 2005. in *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*, WIPO, Geneva, ISBN 92-805-15553-5.

PEÑALOZA BAEZ, Marcela, *La industria del software: una oportunidad para México*. January 2002, <http://www.enterate.unam.mx/Articulos/enero/software.htm>.

PONENCIA de IIPA, *Fomento de la producción, la aplicación de las leyes pertinentes y el acceso al mercado en las Américas de los productos con derechos de autor reservados*. En: *Seminario A: Estrategia Comercial-Definición de Obstáculos* (1º: 1996: Cartagena, Colombia). Colombia: IIPA, 1996. [online], http://www.iipa.com/rbi/1996_Mar18to21b_ftaa_cartagena.html.

PUNTOS relevantes del mercado discográfico mexicano 2005. [online] México: AMPROFON, <http://www.amprofon.com.mx/MediosPuntos1.htm>.

REVISTA Mexicana del derecho de autor. México D.F. 5 (19). 2006.

REVISTA Mexicana del derecho de autor. México D.F. 6 (20). 2006.

SÁNCHEZ, Enrique, *La televisión y el sector audiovisual mexicano: breve examen de flujos asimétricos*. Revista Universidad de Guadalajara [online]. Autumn 2000, no. 20,

<http://www.cge.udg.mx/revistaudg/rug20/entrada20.html>.

SECRETARIA de Comunicaciones y Transportes, Anuario estadístico 2004. SCT: México, 2004. [online] http://portal.sct.gob.mx/SctPortal/appmanager/Portal/Sct?_nfpb=true&_pageLabel=P24118.

SIWEK, Stephen E., *Copyright Industries in the U.S. Economy: The 2004 Report*. Economists Incorporated, Washington, DC, 2004 in *National Studies on Assessing the Economic Contribution of the Copyright-Based industries*, WIPO, Geneva, ISBN 92-805-15553-5.

TELEVISA MÉXICO, www.televisa.com.mx.

TÉLLEZ-GIRÓN, Ricardo, *El laberinto sonoro. Elementos* [online], December-February 2001-2002. no. 44, ISSN 0187-9073, <http://www.elementos.buap.mx/num44/pdf/47.pdf>.

UK Trade & Investment's Export Marketing Research Scheme, *Publishing Market Profile: México*. UK: The Publishers Association, 2006, ISBN: 0-85386-296-6.

UNESCO, *Culture, Trade and Globalization*. [online] <http://www.unesco.org/culture/industries/trade/>

UNESCO, Institute for Statistics. *International Flows of Selected Cultural Goods and Services, 1994-2003: Defining and Capturing the Flows of Global Cultural trade*. Montreal, Canada, UNESCO, 2005.

WALL Communication Incorporated, *The Economic Contribution of Copyright-Based Industries to the Canadian Economy*. Canada: Canadian Heritage, 2004. in *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*, WIPO, Geneva, ISBN 92-805-15553-5.

WIPO, *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*. Geneva: WIPO, 2003. ISBN 92-805-1225-7.

APPENDIX 1. Core Copyright Industries in Mexico

Tabla 1: CORE, 1998
(Thousands of pesos in nominal terms)

SECTOR ECONOMICO, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONOMICAS	TOTAL DE PERSONAS EMPLEADAS	TOTAL DE INNOVACIONES	PRODUCCION BRUTA TOTAL	VALOR AÑADIDO GROSSO BRUTO	FORMACION BRUTA DE CAPITAL FIJO	INVERSION TOTAL DE INVERSIÓN	GASTOS
ARTES VISUALES Y GRAFICAS	5,561	19,779	472,108	2,217,779	1,248,793	-64,409	23,776	-423
CLASE 4000 (DISEÑO AL, MANEJO DE MACHINARIA Y ACCESORIOS PARA DISEÑO Y GRAFICAS)	36	1,911	14,410	41,140	28,011	11,360	11,220	40,217
CLASE 4100 (DISEÑO AL, MANEJO DE MACHINARIA, SERVICIOS GRAFICOS Y OTROS)	44	1,868	18,674	187,373	110,274	1,170	15,250	17,845
CLASE 4200 (DISEÑO DE CALLES)	108	800	28,800	124,544	30,747	-10,000	300	120,201
CLASE 4300 (DISEÑO DE DISEÑO)	2,089	9,273	177,704	1,220,208	563,014	35,708	11,410	45,120
CLASE 4400 (DISEÑO DE CALLES Y OTROS DISEÑOS DE DISEÑO)	208	776	12,967	83,240	25,508	2,170	300	1,800
CLASE 4500 (DISEÑO DE MACHINARIA, SERVICIOS GRAFICOS Y OTROS)	1,411	4,827	47,944	116,148	208,973	1,063	2,374	5,000
SUBRAMA 4100 (DISEÑO Y GRAFICAS)	604	3,800	13,481	192,274	65,237	2,274	1,800	6,211
COMUNICACION Y MEDIOS DE INFORMACION	13,284	37,677	2,699,228	12,014,423	8,229,814	314,473	3,204,119	6,724,034
CLASE 5000 (DISEÑO DE SOFTWARE, SERVICIOS DE INFORMACION)	20	1,207	10,200	1,210,441	640,011	10,844	4,444	25,200
CLASE 5100 (DISEÑO DE SOFTWARE DE INFORMACION, SERVICIOS DE INFORMACION Y OTROS)	1	1	1	1	1	1	1	1
CLASE 5200 (SERVICIOS DE CONSULTORIA EN INFORMACION)	1,102	10,889	1,793,204	6,910,200	4,440,210	40,200	3,900,000	10,000
SUBRAMA 5000 (DISEÑO DE SOFTWARE)	11,762	11,100	10,000	110,400	240,000	40,000	10,211	1,000
CLASE 5300 (DISEÑO DE SOFTWARE PARA DISEÑO DE SOFTWARE)	140	300	10,000	100,000	10,000	1,000	1,000	10,000
CLASE 5400 (DISEÑO DE SOFTWARE Y OTROS DISEÑOS)	8	111	1,000	25,700	10,000	100	100	100
CLASE 5500 (DISEÑO Y DIFUSION DE CONTENIDO DE SOFTWARE Y OTROS DISEÑOS)								
INDUSTRIA	6,744	21,951	1,755,341	7,229,334	3,829,234	61,894	194,220	258,114
CLASE 6000 (SERVICIOS DE INFORMACION)	1,164	10,800	10,000	100,000	10,000	10,000	10,000	10,000
SUBRAMA 6000 (SERVICIOS DE INFORMACION)	1,000	1,000	10,000	1,000,000	1,000,000	1,000	10,000	10,000
CLASE 6100 (SERVICIOS DE INFORMACION)								
MUSICA, PRODUCCIONES TEATRALES Y CINEMATOGRAFICAS	9,997	41,281	1,238,513	11,183,700	6,219,128	309,000	194,220	765,222
CLASE 7000 (PRODUCCION Y DISTRIBUCION DE MEDIOS AUDIOVISUALES Y OTROS)	34	3,448	200,207	1,274,200	420,000	10,000	1,000	10,000
CLASE 7100 (DISEÑO AL, MANEJO DE MACHINARIA, SERVICIOS GRAFICOS Y OTROS)	108	2,407	110,000	1,000,000	100,000	10,000	10,000	10,000
CLASE 7200 (DISEÑO AL, MANEJO DE MACHINARIA, SERVICIOS GRAFICOS Y OTROS)	4,300	10,200	100,000	1,000,000	1,000,000	10,000	10,000	10,000
CLASE 7300 (PRODUCCION DE DISEÑO)	8	80	1,000	1,000	1,000	1,000	1,000	1,000
CLASE 7400 (PRODUCCION Y DISTRIBUCION DE MEDIOS AUDIOVISUALES)	70	1,813	200,000	1,200,000	1,000,000	10,000	10,000	10,000
CLASE 7500 (DISEÑO DE MACHINARIA)	18	300	10,000	100,000	10,000	1,000	1,000	1,000
CLASE 7600 (DISEÑO DE MACHINARIA Y OTROS)	11	200	1,000	10,000	1,000	1,000	1,000	1,000
CLASE 7700 (DISEÑO DE MACHINARIA Y OTROS)	41	271	1,000	10,000	1,000	1,000	1,000	1,000
CLASE 7800 (DISEÑO DE MACHINARIA Y OTROS)	40	1,122	10,000	1,000,000	1,000,000	10,000	10,000	10,000
SUBRAMA 7000 (DISEÑO DE MACHINARIA)	71	1,144	1,000	10,000	1,000	1,000	1,000	1,000
SUBRAMA 7100 (DISEÑO DE MACHINARIA)	61	304	1,000	10,000	1,000	1,000	1,000	1,000
SUBRAMA 7200 (DISEÑO DE MACHINARIA)	3,071	10,800	10,000	1,000,000	1,000,000	1,000	10,000	10,000
SUBRAMA 7300 (DISEÑO DE MACHINARIA Y OTROS)	36	200	1,000	10,000	1,000	1,000	1,000	1,000
SUBRAMA 7400 (DISEÑO DE MACHINARIA Y OTROS)	108	3,400	10,000	1,000,000	1,000,000	1,000	10,000	10,000
SUBRAMA 7500 (DISEÑO DE MACHINARIA Y OTROS)	11	271	10,000	100,000	1,000	1,000	1,000	1,000
SUBRAMA 7600 (DISEÑO DE MACHINARIA Y OTROS)	108	1,100	10,000	1,000,000	1,000,000	1,000	10,000	10,000
MUEBLAS Y VIDEOS	11,844	28,221	711,881	7,791,141	6,749,634	112,204	760,448	441,322
CLASE 8000 (PRODUCCION DE MUEBLAS DE MADERA Y OTROS)	47	400	10,000	100,000	1,000	1,000	1,000	10,000
CLASE 8100 (PRODUCCION DE MUEBLAS DE MADERA Y OTROS)	270	1,500	10,000	1,000,000	1,000,000	1,000	1,000	1,000
CLASE 8200 (PRODUCCION DE MUEBLAS DE MADERA Y OTROS)	34	274	1,000	10,000	1,000	1,000	1,000	1,000
CLASE 8300 (PRODUCCION DE MUEBLAS DE MADERA Y OTROS)	70	1,000	10,000	1,000,000	1,000,000	1,000	1,000	1,000
CLASE 8400 (SERVICIOS DE INFORMACION Y OTROS)	34	800	10,000	100,000	1,000	1,000	1,000	1,000
SUBRAMA 8000 (DISEÑO DE MACHINARIA Y OTROS)	11,720	28,011	700,000	7,690,000	6,640,000	100,000	750,000	430,000
CLASE 8500 (SERVICIOS DE INFORMACION Y OTROS)								
PIRENAS Y LITERARIA	14,444	141,271	7,441,213	41,889,667	18,440,623	1,007,257	1,241,741	1,300,718
CLASE 9000 (DISEÑO DE MACHINARIA Y OTROS)	241	10,000	10,000	1,000,000	1,000,000	1,000	1,000	1,000
CLASE 9100 (DISEÑO DE MACHINARIA Y OTROS)	11,700	10,000	10,000	1,000,000	1,000,000	1,000	1,000	1,000

Source: INEGI

APPENDIX 1. Core Copyright Industries in Mexico

Tabla 1: CORE, 1998
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AÑADIDO GROSS BRUT	FORMACIÓN BRUTA DE CAPITAL	VARIACION TOTAL DE EXISTENCIAS	CAPITAL
(MILES DE PESOS CORRIENTES)								
CLASE 922122 VOUCHERS COMERCIALES A LA IMPRESIÓN	120	340	70.74	70.73	41.04	41.04	0.00	19.85
CLASE 423422 COMERCIO AL POR MENOR DE LIBROS	96	434	147.87	44.44	30.00	30.00	14.20	170.34
CLASE 423433 COMERCIO AL POR MENOR DE REVISTAS Y PERIÓDICOS	96	435	152.25	46.80	30.00	30.00	14.20	174.69
CLASE 442112 COMERCIO AL POR MENOR DE REPRODUCCIONES FOTOGRAFICAS	140	521	157.84	48.42	44.00	44.00	14.20	186.44
CLASE 511121 SECCIÓN DE REPRODUCCIÓN FOTOGRÁFICA CON LA IMPRESIÓN, EXCEPTA TRAVES DE INTERNET	111	381	120.47	36.87	27.00	27.00	0.00	82.14
CLASE 511122 SECCIÓN DE REPRODUCCIÓN FOTOGRÁFICA CON LA IMPRESIÓN, EXCEPTA TRAVES DE INTERNET	96	120	36.44	9.64	28.10	28.10	0.00	18.87
CLASE 511123 SECCIÓN DE REPRODUCCIÓN FOTOGRÁFICA CON LA IMPRESIÓN	96	237	149.50	70.03	39.90	39.90	14.20	118.23
CLASE 511222 SECCIÓN DE REPRODUCCIÓN FOTOGRAFICA CON LA IMPRESIÓN, EXCEPTA TRAVES DE INTERNET	111	134	120.47	120.47	14.70	14.70	0.00	43.25
CLASE 511223 SECCIÓN DE REPRODUCCIÓN FOTOGRAFICA CON LA IMPRESIÓN, EXCEPTA TRAVES DE INTERNET	41	140	49.01	49.01	13.30	13.30	14.20	58.88
CLASE 511224 SECCIÓN DE REPRODUCCIÓN FOTOGRAFICA CON LA IMPRESIÓN	96	330	302.94	420.46	279.80	279.80	0.00	911.67
CLASE 511243 SECCIÓN DE REPRODUCCIÓN FOTOGRAFICA CON LA IMPRESIÓN, EXCEPTA TRAVES DE INTERNET	0	0	4.10	0.00	0.00	0.00	0.00	0.00
CLASE 511244 SECCIÓN DE REPRODUCCIÓN FOTOGRAFICA CON LA IMPRESIÓN	96	440	703.07	370.46	1,000.00	75.00	0.00	1,053.44
CLASE 511245 AGENCIAS REPRODUCIDAS								
CLASE 511246 REPRODUCCIÓN FOTOGRAFICA (EXCEPTA TRAVES DE INTERNET)								
CLASE 541033 SERVICIOS DE TRADUCCIÓN E INTERPRETACION	0	17	3.47	2.00	4.00	0.00	0.00	1.00
CLASE 541034 SERVICIOS DE TRADUCCIÓN DE DOCUMENTOS	0	0	0.00	0.00	0.00	0.00	0.00	0.00
RAMA DE TELEVISION	96	471	1,077.82	6,216.84	794.20	100.00	511.87	601.20
CLASE 511212 PRODUCCIÓN DE PROGRAMAS PARA LA TELEVISIÓN	0	0	0.00	0.00	0.00	0.00	0.00	0.00
CLASE 511213 TRANSMISIÓN DE PROGRAMAS DE RADIO EXCEPTO TRAVES DE INTERNET								
CLASE 511214 TRANSMISIÓN DE PROGRAMAS DE TELEVISIÓN EXCEPTA TRAVES DE INTERNET								
CLASE 511215 PRODUCCIÓN DE PROGRAMAS DE CANALES PARA SISTEMAS DE TELEVISIÓN POR CABLE O SATELITALES, EXCEPTA TRAVES DE INTERNET								
CLASE 511216 TRANSMISIÓN DE PROGRAMAS DE TELEVISIÓN EXCEPTO TRAVES DE INTERNET								
CLASE 541035 SERVICIOS DE ANIMACIÓN MUSICAL Y GRAFÍA	96	91	6.85	36.00	0.00	1.00	0.00	2.50
CLASE 511217 AGENCIAS TELEVISIVAS								
PUBLICIDAD	664	7094	1,113.85	1,189.71	4,319.81	642.14	50.91	706.60
CLASE 511001 PUBLICIDAD DE ANUNCIO	96	576	10.44	30.00	30.00	0.00	0.00	17.00
CLASE 423222 COMERCIO AL POR MENOR DE PRODUCTOS IMPRESOS (ORGANIZACIÓN VINCULADA)	0	0	0.00	1,189.71	30.00	30.00	0.00	23.41
CLASE 541010 AGENCIAS DE PUBLICIDAD	100	100	1,000.00	4,300.00	1,000.00	0.00	0.00	600.00
CLASE 541011 AGENCIAS DE COMPAÑÍA DE PRODUCTOS ALIMENTICIOS	24	24	24.00	24.00	24.00	0.00	0.00	24.00
CLASE 541012 AGENCIAS DE SERVICIOS DE PUBLICIDAD	47	170	11.00	1,000.00	20.00	0.00	0.00	52.00
CLASE 541013 AGENCIAS DE ANUNCIOS PUBLICITARIOS	70	330	98.00	1,000.00	60.00	60.00	0.00	172.00
CLASE 541014 AGENCIAS DE PUBLICIDAD QUE OPERAN EN OTROS SECTORES	0	0	0.00	0.00	0.00	0.00	0.00	0.00
CLASE 541015 PUBLICIDAD DE MEDIOS PUBLICITARIOS	0	0	0.00	0.00	10.00	0.00	0.00	0.00
CLASE 541016 OTROS SERVICIOS DE PUBLICIDAD	24	0	0.00	0.00	0.00	0.00	0.00	0.00
SOCIEDADES DE DIFUSIÓN COLECTIVA								
OTROS SECTORES DE ACTIVIDADES CULTURALES								
TOTAL ZONA BÁSICA	9740	37620	16,063.29	94,763.69	6,009.21	3,000.00	8,100.00	11,000.00
TOTAL NACIONAL	3,000,000	15,000,000	50,000,000	5,000,000,000	1,000,000,000	200,000,000	4,000,000	10,000,000
PARTICIPACIÓN ZONA BÁSICA/TOTAL NACIONAL (%)	0.32%	0.25%	0.32%	0.19%	0.60%	1.50%	0.20%	0.10%

Source: INEGI

APPENDIX 1. Core Copyright Industries in Mexico

Tabla 2: CORE, 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAS EMPLEADAS	TOTAL DE INNOVACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO CORRIENTE BRUTO	FORMACIÓN BRUTA DE CAPITAL FIJO	VENEDOS TOTAL DE INNOVACIONES	CAPITAL
ARTES VISUALES Y GRÁFICAS	6,323	16,244	897,283	3,046,378	2,766,455	111,441	73,894	234,378
CLAS. 8850 COMERCIO AL POR MENOR DE LIBROS, REVISTAS, PERIÓDICOS Y PUBLICACIONES	23	1,940	16,822	715,707	477,374	16,680	6,669	7,128
CLAS. 8860 COMERCIO AL POR MENOR DE FOTOCOPIAS, FOTODUPLICADOS Y FOTODUPLICACIONES	407	1,829	3,779	16,779	45,888	1,276	2,148	6,222
CLAS. 8870 SERVICIOS DE FOTOCOPIADO	384	1,822	3,073	16,869	45,211	1,440	86	9,227
CLAS. 8880 SERVICIOS DE IMPRESIÓN	2,857	11,176	42,666	2,391,596	1,911,944	61,511	1,260	16,244
CLAS. 8890 SERVICIOS DE FOTOCOPIADO Y FOTODUPLICACIONES	28	239	16,999	1,281,182	38,539	16,291	9,219	22,827
CLAS. 8900 SERVICIOS DE IMPRESIÓN Y SERVICIOS DE IMPRESIÓN	1,426	6,417	42,198	1,687,887	178,227	1,999	622	6,628
SUBRAMA TOTAL SERVICIOS DE IMPRESIÓN Y FOTOCOPIADO	334	1,361	6,369	18,968	61,414	1,380	179	1,458
SOFTWARE BÁSICO DE DATOS	14,876	71,261	5,978,218	14,153,234	8,270,844	663,231	11,221	1,812,744
CLAS. 7300 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	94	1,706	36,698	719,401	448,726	40,827	9,711	36,792
CLAS. 7310 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN DE SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	225	6,811	126,485	2,171,892	1,189,982	62,228	1,260	64,286
CLAS. 7320 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	1,660	26,469	2,108,028	12,948,282	5,252,860	286,822	9,699	49,011
SUBRAMA TOTAL SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	2,279	14,986	148,211	1,339,575	687,568	113,057	2,970	10,694
CLAS. 7330 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	60	238	1,228	3,222	4,829	94	769	1,271
CLAS. 7340 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	13	488	3,127	49,219	51,202	1,273	-13	3,227
CLAS. 7350 SERVICIOS DE INFORMACIÓN Y SERVICIOS DE INFORMACIÓN	6	276	27,282	27,669	16,221	6,102	-19	8,287
COMUNICACIÓN	11,810	22,119	897,843	3,199,222	2,446,148	727,683	11,228	143,261
CLAS. 4800 SERVICIOS DE COMUNICACIÓN	8,120	11,128	14,494	1,963,232	1,277,729	324,271	1,462	26,276
SUBRAMA TOTAL SERVICIOS DE COMUNICACIÓN	4,690	10,991	36,170	2,482,218	1,924,902	663,671	6,871	120,491
CLAS. 4810 SERVICIOS DE COMUNICACIÓN	9	52	19	99	48	9	0	-9
MÚSICA, PRODUCCIÓN DE BREVES Y OTROS	11,279	62,238	1,899,218	77,217,284	8,246,669	316,112	123,888	239,798
CLAS. 9100 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	9	8,211	86,960	1,991,472	1,741,988	84,228	4,998	32,229
CLAS. 9110 COMERCIO AL POR MENOR DE DISCOS Y CASSETTES	98	1,822	31,698	1,789,182	81,427	1,220	22,821	22,821
CLAS. 9120 COMERCIO AL POR MENOR DE DISCOS Y CASSETTES	7,821	10,668	17,142	1,526,688	1,128,228	2,296	28,122	36,276
CLAS. 9130 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	16	96	1,694	42,994	29,921	1,425	14	1,881
CLAS. 9140 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	20	1,811	18,112	1,341,288	92,441	1,746	32,222	36,792
CLAS. 9150 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	61	90	22,392	28,128	19,128	4,462	14	6,284
CLAS. 9160 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	20	327	10,596	96,668	42,246	4,462	1,107	2,298
CLAS. 9170 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	24	429	10,821	36,227	42,118	1,222	28	3,686
CLAS. 9180 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	46	3,867	14,128	4,681,218	1,202,668	27,588	15,022	41,011
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	41	228	1,871	17,466	30,828	1,361	1	1,291
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	119	347	6,248	71,128	52,246	4,222	17	6,286
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	2,426	10,962	148,798	712,212	492,222	16,668	82	14,422
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	90	342	11,796	81,228	37,228	94	129	1,222
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	28	1,128	19,248	2,281,718	1,028,228	26,422	32,228	10,228
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	92	2,228	44,278	92,127	62,128	2,222	22	2,228
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	16	221	12,122	22,428	42,228	14,272	3,221	4,222
RECREACIÓN Y TIEMPO LIBRE	13,229	48,229	899,248	23,441,493	1,728,218	328,244	-98,271	122,248
CLAS. 9200 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	41	284	9,248	18,247	81,246	1,128	86	1,228
CLAS. 9210 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	27	329	28,228	1,881,228	42,228	42,228	-142	42,228
CLAS. 9220 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	20	426	36,698	1,881,228	68,221	2,228	47,228	36,228
CLAS. 9230 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	58	719	148,278	5,228,498	99,246	48,128	15,228	62,227
CLAS. 9240 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	20	1,246	34,246	17,246	62,246	1,128	86	1,228
SUBRAMA TOTAL SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	14,228	38,271	71,271	2,281,228	1,128,228	16,428	36,228	36,221
CLAS. 9250 SERVICIOS DE ENTRETENIMIENTO Y SERVICIOS DE ENTRETENIMIENTO	9	52	19	99	48	9	0	-9
FINANZA Y SEGURO	54,278	188,247	10,274,244	34,717,284	17,818,206	1,471,284	194,212	1,228,278
CLAS. 6400 SERVICIOS DE FINANZAS, SERVICIOS DE FINANZAS	89	2,246	1,81,498	7,771,218	1,942,228	18,222	32,221	28,246
CLAS. 6500 SERVICIOS DE SEGUROS Y SERVICIOS DE SEGUROS	12,119	7,228	3,628,482	16,947,228	1,241,246	64,246	27,228	62,271

Source: INEGI

APPENDIX 1. Core Copyright Industries in Mexico

Tabla 2: CORE, 2003
(Thousands of pesos in nominal terms)

ENTRADA PRODUCTIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	INDICADOR ECONOMICO	TOTAL DE PERSONAS EMPLEADAS	TOTAL DE REMUNERACIONES	PRODUCCION BRUTA TOTAL	VALOR AGREGADO BRUTO	FORMACION BRUTA DE CAPITAL Fijo	VARIACION TOTAL DE ASISTENTES	GAFAPAL
CLASE 411101 SERVICIOS TELEFONICOS Y DE TELEVISION	99	580	20700	18029	10700	20700	1000	33243
CLASE 412000 COMERCIO POR MENOR DE LIBROS	99	510	3648	14933	3200	3170	1000	7929
CLASE 413000 COMERCIO POR MENOR DE REVISTAS Y PUBLICACIONES	99	490	3071	11449	3000	3170	1000	4323
CLASE 421101 COMERCIO POR MENOR DE LIBROS	100	480	1000	32000	10000	10000	1000	24000
CLASE 421102 COMERCIO POR MENOR DE REVISTAS Y PUBLICACIONES	100	100	1000	1000	1000	1000	1000	1000
CLASE 511101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 512101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 513101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 514101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 515101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 516101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 517101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 518101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 519101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 521101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 522101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 523101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 524101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 525101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 526101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 527101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 528101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 529101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
SUBSECTOR DE SERVICIOS DE INFORMACION Y COMUNICACION	10	1000	10000	10000	10000	10000	1000	10000
CLASE 531101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 532101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 533101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 534101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 535101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 536101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 537101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 538101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 539101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
SUBSECTOR DE SERVICIOS DE INFORMACION Y COMUNICACION	10	1000	10000	10000	10000	10000	1000	10000
CLASE 541101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 542101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 543101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 544101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 545101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 546101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 547101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 548101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 549101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
SUBSECTOR DE SERVICIOS DE INFORMACION Y COMUNICACION	10	1000	10000	10000	10000	10000	1000	10000
CLASE 551101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 552101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 553101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 554101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 555101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 556101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 557101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 558101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
CLASE 559101 SECCION DE SERVICIOS DE INFORMACION Y COMUNICACION	10	100	1000	1000	1000	1000	100	1000
SUBSECTOR DE SERVICIOS DE INFORMACION Y COMUNICACION	10	1000	10000	10000	10000	10000	1000	10000
TOTAL INDUSTRIA	97,000	300,000	21,000,000	17,000,000	9,000,000	9,000,000	1,000,000	50,000,000
TOTAL NACIONAL CORRIENTE EN DOLARES	1,000,000	10,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000

Source: INEGI

APPENDIX 2. Interdependent Copyright Industries in Mexico

Tabla 1: INTERDEPENDENT 1998
(Thousands of pesos in nominal terms)

EFFECTO FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	LINEAS ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REVENIDOS	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO CENSAL BRUTO	FORMACIÓN BRUTA DE CAPITAL FUD	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
INTERDEPENDIENTE: COMPUTADORAS Y EQUIPO	643	13439	6,072,035	96,496,998	29,967,648	3,894,398	3,038,324	3,909,998
CLASE 3810 FABRICACIÓN DE COMPUTADORAS Y EQUIPO PERIFÉRICO	150	4,886	2,210,571	48,665,223	6,888,637	2,070,921	1,863,105	3,334,036
CLASE 4811 COMERCIO AL POR MAYOR DE EQUIPO Y ACCESORIOS DE COMPUTO	1,223	21,671	1,534,763	11,049,430	14,243,069	294,238	1,258,543	1,418,682
CLASE 4812 COMERCIO AL POR MENOR DE COMPUTADORAS Y SUS ACCESORIOS	4,362	22,242	892,253	4,343,574	3,017,825	128,753	365,967	514,710
SUBRAMA 520 ALQUILER DE EQUIPO DE COMPUTO Y DE OTRAS MAQUINAS Y MOBILIARIO DE OFICINA	561	2,624	13,553	582,396	231,225	63,898	7,530	70,428
CLASE 3820 FABRICACIÓN DE APARATOS TELEFÓNICOS	80	27,984	1,668,856	4,916,851	2,658,099	218,248	122,211	328,459
CLASE 3820 FABRICACIÓN DE OTROS EQUIPOS DE COMUNICACIÓN	27	8,352	472,619	951,290	697,893	118,110	1,173	19,583
INTERDEPENDIENTE: ELECTRÓNICOS	786	186,080	8,946,485	26,886,630	14,896,578	1,736,967	306,309	3,042,794
CLASE 3860 FABRICACIÓN DE EQUIPO DE AUDIO Y DE VIDEO	54	4,300	2,316,895	8,170,751	4,371,253	697,628	78,750	766,284
CLASE 3860 FABRICACIÓN DE COMPONENTES ELECTRÓNICOS	303	86,278	4,238,020	12,373,028	6,849,608	608,632	287,284	873,896
SUBRAMA 520 ALQUILER DE APARATOS ELECTRÓNICOS Y ELECTRÓNICOS PARA EL HOGAR	327	1,388	29,663	338,876	72,586	141,779	28,547	170,117
CLASE 3860 FABRICACIÓN DE EQUIPO DE TRANSMISIÓN Y RECEPCIÓN DE SEÑALES DE RADIO, TELEVISIÓN Y CABLE	53	35,454	1,811,832	5,459,978	3,321,772	301,157	-48,808	232,299
INTERDEPENDIENTE: FOTOCOPIADORA	603	12,282	852,734	4,812,711	1,703,100	399,328	113,842	813,188
CLASE 3820 FABRICACIÓN DE MAQUINAS FOTOCOPIADORAS	3	2,182	24,181	1,919,628	726,238	1,126	55,794	67,133
CLASE 3860 SERVICIOS DE FOTOCOPIADO, FAX Y FINES	6,029	15,100	211,579	1,283,081	525,865	387,857	58,178	446,035
INTERDEPENDIENTE: FOTOGRAFÍA Y OMA	1,862	34,986	1,384,338	8,168,775	5,847,780	435,813	1,136,896	1,863,809
CLASE 3820 FABRICACIÓN DE APARATOS FOTOGRAFICOS	8	1,339	89,203	1,203,388	522,801	111,361	57,500	188,841
CLASE 4821 COMERCIO AL POR MAYOR DE EQUIPO DE TELECOMUNICACIONES, FOTOGRAFIA Y OMA FOTOGRAFIA	903	9,012	1,300,822	7,290,031	4,963,291	296,576	1,026,348	1,332,024
CLASE 4821 COMERCIO AL POR MENOR DE EQUIPO Y MATERIAL FOTOGRAFICO	896	3,713	111,323	946,355	361,662	27,076	34,888	61,744
INTERDEPENDIENTE: MATERIAL DE GRABACIÓN	85	3,771	236,626	5,123,089	1,791,283	254,738	25,542	286,280
CLASE 335902 FABRICACIÓN DE PELICULAS, PLACAS Y PAPEL FOTOFENSIBLE PARA FOTOGRAFIA	24	1,888	138,862	5,443,836	1,200,025	254,999	-24,268	185,641
CLASE 335910 FABRICACIÓN DE TONERS PARA IMPRESIÓN	61	1,877	197,764	1,680,254	551,228	49,738	49,800	90,639
INTERDEPENDIENTE: INSTRUMENTOS MUSICALES	1,202	4,492	127,848	790,280	441,625	20,268	86,838	119,842
CLASE 339901 FABRICACIÓN Y ENSEMBLE DE INSTRUMENTOS MUSICALES	432	2,621	86,203	186,209	118,893	5,318	423	5,741
CLASE 4821 COMERCIO AL POR MENOR DE INSTRUMENTOS MUSICALES	770	2,341	41,645	502,071	322,732	2,889	86,212	110,101
INTERDEPENDIENTE: PAPEL	8,412	183,843	8,192,894	94,995,188	30,006,810	3,482,227	1,896,964	4,361,891
CLASE 322110 FABRICACIÓN DE CELULOSA	381	25,813	2,081,862	22,245,887	6,666,847	1,098,107	478,811	1,544,718
CLASE 322111 FABRICACIÓN DE PAPEL EN PAQUETES PRECINTADOS	-	-	-	-	-	-	-	-
CLASE 322112 FABRICACIÓN DE PAPEL A PARTIR DE CELULOSA	86	20,961	1,813,891	19,385,686	5,754,699	914,455	430,363	1,344,818
CLASE 322113 FABRICACIÓN DE CARTÓN CANTONADO A PARTIR DE CELULOSA	173	4,692	287,368	2,860,201	999,348	153,652	46,248	190,800
CLASE 322299 FABRICACIÓN DE OTROS PRODUCTOS DE PAPEL Y CARTÓN	1,223	6,575	641,268	1,287,805	397,859	55,183	56,498	105,680
CLASE 333203 FABRICACIÓN DE MAQUINARIA Y EQUIPO PARA LA IMPRESIÓN	33	299	12,827	49,940	24,259	-3,809	542	4,301
CLASE 339940 FABRICACIÓN DE ARTÍCULOS Y ACCESORIOS PARA ESCRITURA, PINTURA, DIBUJO Y ACTIVIDADES DE OFICINA	124	14,083	765,844	2,404,628	1,611,158	112,507	117,403	225,810
CLASE 483410 COMERCIO AL POR MAYOR DE ARTÍCULOS DE PAPELERIA	1,110	12,094	415,328	2,208,057	1,598,921	47,811	288,968	377,819
CLASE 483211 COMERCIO AL POR MENOR DE ARTÍCULOS DE PAPELERIA	61,213	104,646	525,529	5,841,308	2,777,388	533,626	467,261	570,287
CLASE 322230 FABRICACIÓN DE PRODUCTOS DE PAPELERIA	76	4,805	168,296	842,372	306,231	23,637	20,570	44,207
TOTAL INTERDEPENDIENTES	80,842	526,229	23,480,774	182,322,300	74,067,178	8,191,368	6,999,818	14,791,284

Source: INEGI

APPENDIX 2. Interdependent Copyright Industries in Mexico

Tabla 2: INTERDEPENDENT 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO GENCAL BRUTO	FORMACIÓN BRUTA DE CAPITAL FLOJ	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
(MILES DE PESOS CORRIENTES)								
INTERDEPENDIENTE: COMPUTADORES Y EQUIPO	8,833	117,389	7,444,836	44,246,784	32,751,437	843,846	361,812	838,886
CLASE 2801 FABRICACIÓN DE COMPUTADORAS Y EQUIPO PERIFÉRICO	95	41,841	3,621,375	33,632,644	8,583,335	495,654	-134,200	258,254
CLASE 3401 COMERCIO AL POR MENOR DE EQUIPO Y ACCESORIOS DE COMPUTO	834	17,256	1,427,343	10,219,636	1,531,096	13,658	221,788	134,426
CLASE 4801 COMERCIO AL POR MENOR DE COMPUTADORAS Y SUS ACCESORIOS	6,106	38,877	3,042,289	2,851,924	5,872,837	82,888	285,240	261,327
SUBRAMA 480101 ALTA DE EQUIPO DE COMPUTO Y/O DE OTRAS MÁQUINAS Y EQUIPOS DE OFICINA	1,896	4,335	47,478	447,758	130,380	30,854	1,495	32,339
CLASE 4802 FABRICACIÓN DE OTROS EQUIPOS DE COMUNICACIÓN	34	8,890	418,271	4,339,694	1,994,912	14,108	4,111	18,294
CLASE 4803 FABRICACIÓN DE APARATOS TELEFÓNICOS	34	16,899	618,807	3,991,935	1,211,444	10,746	-14,802	194
INTERDEPENDIENTE: ELECTRÓNICOS	444	177,376	10,888,246	67,467,748	41,733,676	341,247	171,832	563,774
CLASE 2601 FABRICACIÓN DE EQUIPOS ELECTRO Y DE PESO	72	54,779	5,515,116	22,811,128	10,241,892	147,155	827	147,843
CLASE 2602 FABRICACIÓN DE COMPONENTES ELECTRÓNICOS	372	10,186	6,341,812	28,888,046	17,566,643	205,558	84,641	216,234
SUBRAMA 260201 ALTA DE APARATOS ELECTRO Y ELECTRONICOS PARA EL HOGAR	380	477	4,888	21,881	20,860	2,287	59	2,246
CLASE 2603 FABRICACIÓN DE EQUIPOS TELEFÓNICOS Y RECEPTORES (EXCEPTO DE RADIO TELEFONO Y CABLE)	36	18,767	477,271	4,666,661	2,993,241	33,990	84,312	115,277
INTERDEPENDIENTES: FOTOCOPIADORAS	25,841	96,844	535,840	4,045,281	3,279,418	167,807	17,041	415,816
CLASE 2802 FABRICACIÓN DE MÁQUINAS FOTOCOPIADORAS	7	2,024	13,467	601,987	441,200	0	0	0
CLASE 3402 IMPORTADOR DE FOTOCOPIADORAS Y ACCESORIOS	25,786	48,841	519,286	4,274,356	3,838,218	167,807	17,041	415,816
INTERDEPENDIENTES: FOTOCOPIADORA Y CINE	1,433	15,876	1,213,814	8,648,131	6,268,847	127,736	1,463,112	276,843
CLASE 2801 FABRICACIÓN DE MÁQUINAS FOTOCOPIADORAS	6	2,171	372,424	3,114,888	1,339,222	17,207	20,734	168,241
CLASE 3401 COMERCIO AL POR MENOR DE EQUIPOS DE FOTOCOPIADORAS, FOTOCOPIADORA Y CINE Y ACCESORIOS	467	1,894	462,056	4,549,236	3,456,627	48,891	13,441	101,816
CLASE 480211 COMERCIO AL POR MENOR DE EQUIPOS FOTOCOPIADORAS Y CINE	469	1,213	178,424	894,209	1,203,319	22,132	84,372	126,204
INTERDEPENDIENTES: MATERIAL DE GRABACIÓN	46	4,822	464,246	3,668,267	1,818,327	-9,446	211,884	171,467
CLASE 1701 FABRICACIÓN DE PELÍCULAS, ROLLOS Y CARTRUCHOS DE CÁMARA PARA VIDEOCASSET	20	1,869	393,429	3,294,881	2,217,209	-9,446	183,290	116,849
CLASE 1702 FABRICACIÓN DE TAPAS PARA VIDEOCASSET	6	2,054	421,377	2,202,316	668,826	14,245	16,286	14,339
INTERDEPENDIENTES: INSTRUMENTOS MUSICALES	3,236	7,746	368,130	1,374,246	418,722	16,269	62,374	76,446
CLASE 2701 FABRICACIÓN DE INSTRUMENTOS MUSICALES DE WOODWIND	374	1,189	116,208	708,176	276,244	2,608	1,891	3,407
CLASE 480212 COMERCIO AL POR MENOR DE INSTRUMENTOS MUSICALES	1,841	6,557	1,92,284	1,331,866	468,288	12,333	41,328	72,441
INTERDEPENDIENTES: PAPEL	82,276	218,444	6,619,246	61,286,117	36,891,846	1,886,619	463,441	1,842,846
CLASE 2201 FABRICACIÓN DE CELULOSA	6	36	1,888	18,034	5,895	0	0	0
CLASE 2202 FABRICACIÓN DE PAPEL Y MATERIA DE PAPEL	6	36	1,888	180	-881	0	0	0
CLASE 2203 FABRICACIÓN DE PAPEL Y MATERIA DE CELULOSA	76	18,444	5,712,333	27,662,899	8,886,289	983,351	181,287	1,176,434
CLASE 2204 FABRICACIÓN DE CARTÓN Y PRODUCTOS DE PAPEL DE CARTÓN	46	4,372	394,844	3,647,841	917,376	126,276	68,206	170,278
CLASE 2205 FABRICACIÓN DE OTROS PRODUCTOS DE PAPEL Y CARTÓN	1,054	7,136	346,134	1,277,263	1,860,886	60,292	14,249	80,841
CLASE 2301 FABRICACIÓN DE MAQUINARIA Y EQUIPOS PARA IMPRESIÓN	36	100	11,204	41,884	31,887	881	811	1,088
CLASE 2302 FABRICACIÓN DE ARTICULOS Y ACCESORIOS PARA IMPRESIÓN, REPRODUCCIÓN Y REPRODUCCIÓN DE OFICINA	387	15,746	1,287,846	4,888,211	1,246,716	8,887	81,287	68,844
CLASE 4301 COMERCIO AL POR MENOR DE ARTICULOS DE IMPRESIÓN	881	13,742	845,277	3,633,199	3,277,884	61,703	184,891	184,744
CLASE 480213 COMERCIO AL POR MENOR DE ARTICULOS DE IMPRESIÓN	78,214	14,833	2,271,201	1,381,833	3,284,716	402,129	402,881	804,846
CLASE 2206 FABRICACIÓN DE PRODUCTOS DE PAPEL Y CELULOSA	100	6,294	318,218	3,889,812	1,873,816	28,232	14,861	43,244
TOTAL INTERDEPENDIENTES	119,819	393,444	31,288,444	211,016,206	143,848,876	5,186,841	1,738,886	5,671,837

Source: INEGI

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 1: PARTIAL 1998
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS		TOTAL DE REMERACIONES	PRODUCCION BRUTA TOTAL	VALOR AGREGADO GENERAL BRUTO	FORMACION BRUTA DE CAPITAL FIJO	INVENCIÓN TOTAL (EXISTENCIAS)	CAPITAL
	1997	2001	4,377,432	24,762,998	15,713,587	467,833	1,206,275	3,205,785
INDUSTRIAS ARTESANAS								
RAMA 23279 OTRAS INSTALACIONES Y EQUIPAMIENTO EN CONSTRUCCIONES								0
CLASE 232327 FABRICACION DE PRODUCTOS DE HERRERIA	36,584	40,005	734,867	7,139,021	2,769,021	80,714	94,544	181,380
CLASE 434211 COMERCIO AL POR MAYOR DE CEMENTO, TABIQUE Y CENIZA	18,011	74,213	1,899,470	12,257,313	8,818,296	389,250	1,206,801	2,198,251
CLASE 434219 COMERCIO AL POR MAYOR DE OTROS MATERIALES PARA LA CONSTRUCCION, EXCEPTO DE MAQUINA	1,281	8,479	240,132	2,017,247	1,493,980	49,184	294,205	314,210
CLASE 541310 SERVICIOS DE ARQUITECTURA	4,454	26,443	819,244	6,966,415	3,579,294	133,012	52,889	288,419
CLASE 541310 SERVICIOS DE ARQUITECTURA DE INTERIOR Y EXTERIOR	133	783	27,520	131,177	83,773	24,688	1,043	27,237
CLASE 541310 SERVICIOS DE INGENIERIA	499	3,162	310,209	3,263,488	1,872,239	91,152	8,649	99,297
CLASE 541310 SERVICIOS DE INSPECCION DE EDIFICIOS	108	1,157	38,452	286,403	117,200	8,664	702	5,362
CLASE 541340 SERVICIOS DE LEVANTAMIENTO GEOGRAFICO	62	4,073	242,581	1,611,406	1,014,834	159,478	7,568	167,038
CLASE 541370 SERVICIOS DE ELABORACION DE MAPAS	194	1,100	26,154	138,440	75,288	2,254	80	3,284
CLASE 541400 DISEÑO INDUSTRIAL	104	688	38,947	270,244	80,261	2,422	624	3,341
ARTESANOS DEL HOGAR								
CLASE 311340 FABRICACION DE TELAS DE PUNTO	263	7,089	280,157	3,777,111	911,225	127,073	164,889	301,964
CLASE 311350 FABRICACION DE PRODUCTOS PARA EMBAJAR Y ENVASOS DE PAQUERIA	1,258	8,015	268,978	1,872,536	583,515	30,973	79,104	85,571
CLASE 327111 FABRICACION DE ARTICULOS DE ALFARERIA, PORCELANA Y LOZA	6,426	26,120	232,376	1,494,287	595,022	-7,049	33,941	38,868
CLASE 327112 FABRICACION DE ESPEJOS	71	786	15,999	236,240	91,395	13,761	4,074	54,885
CLASE 327213 FABRICACION DE ARTICULOS DE VIDRIO DE USO DOMESTICO	132	3,187	502,268	2,118,796	886,481	197,383	54,217	252,100
CLASE 327213 FABRICACION DE OTROS PRODUCTOS DE VIDRIO	811	3,219	179,089	861,080	315,383	8,974	10,762	20,738
CLASE 331120 FABRICACION DE OTROS PRODUCTOS DE HIERRO Y ACERO DE MATERIAL COORDADO	70	14,244	1,891,701	15,037,687	8,891,246	1,207,447	961,204	2,489,311
CLASE 332212 FABRICACION DE HERRAJES DE COCINA METALICOS	180	9,548	579,299	3,315,975	1,294,368	422,898	30,289	403,483
CLASE 463110 COMERCIO AL POR MENOR DE HERRAJES (EXCEPTO DE HERRAJES)	685	14,831	2,795,328	11,612,302	7,299,269	868,817	959,370	1,979,197
CLASE 463112 COMERCIO AL POR MENOR DE HERRAJES (EXCEPTO DE HERRAJES) Y APARATOS DE LINEA BANCA	9,208	62,506	940,371	29,112,757	5,371,174	117,540	1,288,866	1,168,496
CLASE 463113 COMERCIO AL POR MENOR DE CRISTALERIA, LOZA Y UTENSILIOS DE COCINA	6,351	16,815	149,099	1,444,434	1,025,281	29,234	176,084	282,218
CLASE 463119 COMERCIO AL POR MENOR DE OTROS ARTICULOS PARA LA ELABORACION DE INSTRUMENTOS	9,345	11,253	107,798	879,646	477,832	11,288	38,125	49,513
RAMA 53229 ALQUILER DE OTROS ARTICULOS PARA EL HOGAR	4,178	11,947	138,278	1,482,781	330,750	200,215	8,123,08	937,853
JOYERIA Y OROFERAS								
CLASE 339111 ACABADO DE IMPRESION DE MONEDAS	7	714	150,269	554,376	122,687	14,896	1,176	17,134
CLASE 339112 DIFERENCIA Y JOYERIA DE METALES Y PEDRAS PRECIOSAS	2,087	9,818	195,571	1,172,246	476,762	25,273	39,224	81,496
CLASE 339113 JOYERIA DE METALES Y PEDRAS NO PRECIOSAS Y DE OTROS MATERIALES	483	4,081	81,293	336,348	183,421	6,174	8,641	14,855
CLASE 339114 METALISTERIA DE METALES NO PRECIOSOS	683	4,424	118,731	615,279	398,105	7,685	22,746	35,421
CLASE 433210 COMERCIO AL POR MAYOR DE ARTICULOS DE JOYERIA Y OTROS ACCESORIOS DE OROFERA	918	3,883	116,293	1,107,383	887,207	14,033	333,077	327,880
CLASE 463113 COMERCIO AL POR MENOR DE ARTICULOS DE JOYERIA Y ACCESORIOS	6,764	18,297	231,213	1,876,385	1,232,791	48,857	210,284	538,241
OTRAS ARTESANIAS								
CLASE 469114 COMERCIO AL POR MENOR DE ARTESANIAS	14,500	26,173	198,484	1,375,719	948,710	23,283	192,283	134,978
JOYERES Y OROFERAS								
CLASE 339112 FABRICACION DE BOUTONAS Y TRICOLAS	101	8,875	275,834	1,498,208	574,280	42,747	14,295	61,182
CLASE 339113 FABRICACION DE ARTICULOS OPORTUNOS	1,001	13,198	393,488	1,881,824	772,218	32,611	1,8847	31,434
CLASE 339119 FABRICACION DE JOYERES	1,278	16,984	589,339	2,241,265	1,084,256	85,664	184,512	250,176
CLASE 433112 COMERCIO AL POR MAYOR DE JOYERES	392	2,977	96,800	1,084,267	1,110,352	7,888	82,649	93,518

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 1: PARTIAL 1998
(Thousands of pesos in nominal terms)

INDICADOR, SECTOR, SUBSECTOR, RAMA Y SUBRAMA ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE RETRIBUCIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO CORRIENTE BRUTO	FORMACIÓN BRUTA DE CAPITAL FIJO	INYECCIÓN TOTAL DE DEBITOS	CAPITAL
CLAVE 40311 COMERCIO A. FORMAS DE ARTEFACTOS Y ARTÍCULOS DEPORTIVOS	152	141	36,761	38,920	10,331	4,225	4,094	6,394
CLAVE 40321 COMERCIO A. FORMAS DE CALZADONES Y BUELTAS	6,288	48,711	181,129	1,101,320	417,137	30,737	22,776	203,314
CLAVE 40324 COMERCIO A. FORMAS DE ARTÍCULOS Y ARTÍCULOS DEPORTIVOS	2,571	6,441	24,120	89,001	15,646	6,120	16,725	12,881
RUDEB	44,054	221,223	5,126,774	36,244,219	17,951,633	618,503	2,664,878	2,493,282
CLAVE 3710 FABRICACIÓN DE ORO								
CLAVE 3711 FABRICACIÓN DE METALES, EXCEPTO COBALTO Y NIOBIO DE ORO Y PLATA	26,120	66,690	2,944,581	21,076,111	7,988,610	39,689	19,549	1,311,362
CLAVE 3712 FABRICACIÓN DE METALES DE ORO Y PLATA								
CLAVE 4141 COMERCIO A. FORMAS DE MOBILIARIO Y EQUIPO DE ORO	1,329	12,477	68,124	6,154,702	5,729,000	8,088	69,490	34,469
CLAVE 5041 ORO Y ORO DE ORO	97	1,778	36,289	225,046	8,167	19,540	1,771	21,276
CLAVE 40111 COMERCIO A. FORMAS DE METALES COMERCIALES	11,124	46,689	175,224	6,920,677	4,226,629	111,917	65,020	68,157
RUDEB	224	2,287	65,973	31,430	142,138	28,823	8,892	92,828
CLAVE 411111 RUBIOS	24	1,281	6,075	34,339	40,138	30,013	1,862	4,025
CLAVE 411112 RUBIOS								
IMPUESTOS Y TARCOS	4,382	32,686	957,182	7,481,927	2,724,448	319,458	231,187	849,817
CLAVE 3713 FABRICACIÓN DE ORO Y ORO DE ORO Y ORO	1,228	5,411	19,024	1,044,575	19,020	7,554	6,249	19,810
CLAVE 3714 FABRICACIÓN DE ORO Y ORO Y ORO	1,079	1,009	3,611	4,222,005	1,111,229	28,707	11,771	48,480
CLAVE 3715 FABRICACIÓN DE ORO Y ORO	10	2,199	9,021	49,228	32,729	630	11,061	6,070
CLAVE 40111 COMERCIO A. FORMAS DE ALUMINIO, COBALTO, NIOBIO Y ORO	1,602	6,111	11,128	70,720	46,020	11,288	6,123	6,387
CLAVE 3716 FABRICACIÓN DE ORO Y ORO	37	700	21,346	36,649	6,171	261	60	1,191
VISTIDO, TEXTILES Y CALZADO	266,672	991,891	18,677,289	97,292,821	65,247,618	5,110,268	4,262,163	6,662,271
CLAVE 312111 RECOMENDACIÓN DE ORO	21	3,711	10,476	1,001,294	24,077	12,294	2,940	6,311
CLAVE 312112 FABRICACIÓN DE PRODUCTOS DE ORO RECOMENDADOS Y DE METALES SUAVES	28	1,244	10,024	64,224	20,422	4,781	1,094	14,729
CLAVE 312113 FABRICACIÓN DE ORO DE ORO, ORO Y METALES SUAVES	28	1,526	16,021	28,225	15,677	1,180	6,711	9,881
CLAVE 312114 FABRICACIÓN EN SERIE DE ORO Y ORO DE ORO	88	55,289	1,422,287	5,911,085	2,292,724	165,121	147,029	282,243
CLAVE 312115 FABRICACIÓN EN SERIE DE ORO	90	8,998	29,546	1,111,286	1,171,244	62,221	22,991	125,326
CLAVE 312116 FABRICACIÓN EN SERIE DE ORO	2,229	46,284	1,311,281	4,071,006	2,982,221	67,121	128,889	122,880
CLAVE 312117 FABRICACIÓN EN SERIE DE ORO	1,221	2,121	16,487	8,049	3,779	1,189	6,111	7,000
CLAVE 312118 FABRICACIÓN DE ORO DE ORO	7,761	24,229	4,294,011	26,621,287	11,922,221	1,281,289		1,87,289
CLAVE 312119 FABRICACIÓN DE ORO DE ORO DE ORO	6,544	22,289	29,528	1,492,437	39,624	41,121		41,121
CLAVE 312120 FABRICACIÓN DE ORO DE ORO Y ORO	1,281	1,006	16,111	26,421	19,504	6,161	14,991	12,721
CLAVE 312121 FABRICACIÓN DE ORO DE ORO DE ORO	22	1,718	16,021	30,449	11,168	11,421	11,721	8,014
CLAVE 312122 FABRICACIÓN DE ORO DE ORO DE ORO DE ORO	6,017	67,049	1,001,281	1,190,449	702,240	24,121	128,880	362,999
CLAVE 312123 FABRICACIÓN DE ORO DE ORO DE ORO	437	1,162	39,447	1,077,819	39,446	41,021	41,629	62,889
CLAVE 312124 FABRICACIÓN DE ORO DE ORO	157	6,571	112,021	621,281	121,289	39,446	24	62,889
CLAVE 312125 FABRICACIÓN DE ORO DE ORO	60	1,197	12,489	21,121	7,681	1,221	4,281	7,121
CLAVE 312126 FABRICACIÓN DE ORO DE ORO DE ORO DE ORO	1,221	6,621	10,024	26,024	10,021	9,117	1,021	4,021
CLAVE 312127 FABRICACIÓN DE ORO DE ORO DE ORO DE ORO	1,029	1,028	22,021	1,115,889	39,689	41,024	2,681	11,121
CLAVE 312128 FABRICACIÓN DE ORO DE ORO DE ORO DE ORO	1,411	15,814	40,421	1,181,281	39,417	44,921	65,999	110,021
CLAVE 41111 COMERCIO A. FORMAS DE ORO	186	1,028	11,681	41,571	29,649	5,397	62,189	67,281
CLAVE 41112 COMERCIO A. FORMAS DE ORO DE ORO DE ORO	22	1,790	18,881	24,289	41,721	11,121	8,881	61,721
CLAVE 41113 COMERCIO A. FORMAS DE ORO	1,885	9,284	26,446	1,111,621	1,171,881	6,449	26,121	34,721
CLAVE 41114 COMERCIO A. FORMAS DE ORO	1,029	3,071	10,411	1,881,121	1,461,214	25,121	18,281	21,624
CLAVE 41115 COMERCIO A. FORMAS DE ORO	4,141	21,477	49,477	1,991,281	1,168,024	30,021	18,281	18,424
CLAVE 41116 COMERCIO A. FORMAS DE ORO	209	4,121	52,121	20,487	24,421	9,221	16,121	16,421

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 1: PARTIAL 1998
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUMMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO CORRIENTE BRUTO	FORMACIÓN BRUTA DE CAPITAL FIJO	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
BASE DE PESOS CORRIENTES								
CLASE 463111 COMERCIO AL POR MENOR DE ARTÍCULOS DE PISOZOLA Y SOMETRGA	15,766	66,446	142,808	934,362	765,132	15,529	148,656	103,286
CLASE 462111 COMERCIO AL POR MENOR DE RECEPTO DE CERO Y PDS.	19,610	170,003	1,833,318	11,200,614	7,517,066	2,699,213	1,533,669	4,340,894
CLASE 463112 COMERCIO AL POR MENOR DE ACCESORIOS DE MOTOR	3,322	8,694	81,290	107,234	278,538	8,817	29,261	86,292
CLASE 462113 COMERCIO AL POR MENOR DE ADORNOS DE CERO Y PREL. Y OTRAS ARTÍCULOS DE ESTOS MATERIALES	3,544	9,873	93,852	656,894	662,200	71,739	82,898	97,838
CLASE 463113 COMERCIO AL POR MENOR DE SOMBREROS	2,218	3,113	65,167	119,898	93,811	1,231	25,284	18,813
CLASE 463114 COMERCIO AL POR MENOR DE CALZADO	19,306	79,734	798,351	5,985,129	4,093,740	100,805	771,266	872,571
CLASE 413110 TODO DE CALCETINES Y MEDIAS	388	18,288	648,244	3,281,348	1,048,827	103,949	17,142	321,074
CLASE 413112 TODO DE HORNEXTRUSION DE PABLO	1,494	24,377	482,713	2,208,963	3,495,789	88,577	84,217	172,820
TOTAL PARCIALES:	461,893	1,827,802	26,827,277	262,887,696	134,671,496	11,183,496	14,762,326	23,945,732

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 2: PARTIAL 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO GENCIAL BRUTO	FORMACIÓN BRUTA DE CAPITAL Fijo	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
(MILES DE PESOS CORRIENTES)								
PARCIALES: ARQUITECTURA	99,885	241,773	8,344,308	84,840,812	31,843,236	1,858,944	1,274,424	5,284,468
SUBRAMA 4 5479 (TRAS EXCEPCIONES) (CONSTRUCCIONES CONSTRUCCIONES)	318	1,023	41,200	2,334,810	83,217	2,814	2,246	7,254
CLASE 4 5421 FABRICACION DE PRODUCTOS DE HERRERIA	88,836	93,998	1,848,811	11,427,368	4,241,242	18,573	188,388	544,319
CLASE 4 54211 COMERCIO AL POR MENOR DE ELEMENTOS, MATERIALES Y MAQUINARIA	13,493	88,478	2,843,805	22,142,003	14,579,288	48,867	1,292,265	1,774,830
CLASE 4 5422 COMERCIO AL POR MENOR DE OBRAS, HERRAJES PARA LA CONSTRUCCION, ESCALERA, MAQUINARIA	4,238	12,245	492,883	2,114,870	2,031,453	81,244	38,019	118,261
CLASE 34124 SERVICIOS DE ARQUITECTURA	2,046	13,267	223,733	3,372,738	1,880,444	85,310	16,212	95,883
CLASE 341230 SERVICIOS DE ARQUITECTURA DE MAQUINARIA Y HIDRANTICO	70	1,048	31,281	38,642	117,882	14,213	41	14,884
CLASE 34134 SERVICIOS DE INGENIERIA	6,839	33,823	1,242,834	6,617,071	2,740,269	144,215	35,213	154,263
CLASE 341230 SERVICIOS DE INGENIERIA DE PRODUCCION	54	1,993	29,284	190,229	18,293	1,216	170	2,240
CLASE 341340 SERVICIOS DE INGENIERIA INDUSTRIAL	72	3,304	21,387	4,396,469	2,488,178	63,390	14,838	406,352
CLASE 341370 SERVICIOS DE LABORATORIOS PARA	121	1,246	64,210	18,583	152,884	15,874	63	17,771
CLASE 341420 INGENIERIA	133	1,880	132,740	916,244	347,604	8,188	86	8,234
ARTICULOS DEL MODA	48,527	21,885	1,818,202	86,840,714	43,827,218	2,722,266	1,886,171	4,441,877
CLASE 32140 FABRICACION DE TELA DE PUÑO	316	1,190	87,396	4,363,008	1,444,220	34,826	-14,887	30,022
CLASE 32150 FABRICACION DE PRODUCTOS PARA VESTIR Y ACCESORIOS DE MODA	188	8,818	157,258	2,281,780	845,853	47,443	63,944	113,381
CLASE 32111 FABRICACION DE ARTICULOS DE ALFARRERA, PORCELANA, PLOMA	7,228	23,227	233,800	1,208,168	324,270	18,702	8,098	-10,894
CLASE 32112 FABRICACION DE BOLSAS	68	1,123	73,462	348,180	171,040	4,811	8,421	15,333
CLASE 32113 FABRICACION DE ARTICULOS DE VESTIR PARA NIÑOS	370	7,283	209,238	3,722,833	1,878,270	34,889	2,230	37,115
CLASE 32114 FABRICACION DE UNIFORMES PARA PROFESIONALES	483	4,882	41,301	774,232	342,377	24,834	21,258	37,842
CLASE 32115 FABRICACION DE UNIFORMES PARA PROFESIONALES	318	18,223	1,812,588	22,722,218	10,072,997	1,020,631	414,889	1,835,618
CLASE 32116 FABRICACION DE UNIFORMES PARA PROFESIONALES	346	8,507	341,378	2,289,278	1,132,888	16,738	4,493	21,333
CLASE 46810 COMERCIO AL POR MENOR EN TIENDAS DE CALZADO	1,275	128,244	8,278,886	25,770,723	18,318,948	1,018,244	1,284,167	2,292,331
CLASE 46812 COMERCIO AL POR MENOR EN TIENDAS ELECTRONICAS DE CALZADO Y MAQUINARIA DE CALZADO	18,863	68,841	1,811,814	12,113,849	3,231,213	238,874	380,845	394,323
CLASE 46813 COMERCIO AL POR MENOR EN TIENDAS DE CALZADO Y MAQUINARIA DE CALZADO	8,278	21,270	374,379	1,894,420	1,262,238	38,882	62,222	118,227
CLASE 46819 COMERCIO AL POR MENOR EN TIENDAS DE CALZADO PARA LA DECORACION DE INTERIORES	3,864	14,045	132,740	1,057,342	749,244	23,236	28,846	48,012
SUBRAMA 4 5330 ALTAZAR DE UNIFORMES PARA EL MODA	3,244	14,125	148,282	1,207,241	733,884	62,877	3,217	62,244
JOYERIA Y MONEDA	17,714	87,894	1,222,867	8,799,828	2,381,246	158,828	234,882	281,807
CLASE 33911 ACABACIONES (REPARACIONES) DE MONEDAS	4	148	11,883	206,828	334,884	11,343	-1,206	5,137
CLASE 33912 OBRAS DE JOYERIA DE ORO Y PLATA Y OBRAS DE ORO Y PLATA	2,243	14,889	408,831	2,211,331	1,031,207	42,746	47,648	83,281
CLASE 33913 JOYERIA DE METALES Y PEDRAS PRECIOSAS POR OBRAS DE ORO Y PLATA	914	1,829	74,520	312,203	157,772	1,288	1,285	4,184
CLASE 33914 METALURGIA DE METALES NO FERROSOS	340	1,123	81,379	247,218	116,838	2,437	9,162	28,810
CLASE 4 3320 COMERCIO AL POR MENOR DE ARTICULOS DE JOYERIA FORMAS ACCESORIOS DE VESTIR	678	1,718	13,448	1,407,460	1,084,248	16,376	37,885	48,881
CLASE 46812 COMERCIO AL POR MENOR DE ARTICULOS DE JOYERIA Y OBRAS	13,243	22,883	393,881	3,722,881	2,318,989	48,884	114,401	182,071
OTRAS ARTESANIAS	14,896	88,746	347,422	1,894,248	1,107,814	22,727	63,216	64,945
CLASE 46814 COMERCIO AL POR MENOR DE ARTESANIAS	14,896	88,746	347,422	1,894,248	1,107,814	22,727	63,216	64,945
BIJUTERIA Y JOYAS	18,611	87,427	1,093,188	11,448,883	6,891,896	188,821	274,277	488,208
CLASE 33980 FABRICACION DE BIJUTERIA Y JOYAS	68	1,334	138,338	1,602,422	816,273	47,246	27,208	-1,243
CLASE 33988 FABRICACION DE ARTICULOS DEPORTIVOS	1,878	18,242	347,793	1,234,859	816,492	28,281	18,242	48,723
CLASE 1 9980 FABRICACION DE BIJUTERIA	584	12,110	443,332	3,044,202	1,353,238	110,294	1,124	143,894
CLASE 4 3322 COMERCIO AL POR MENOR DE BIJUTERIA	381	1,825	84,610	1,202,839	836,314	37,276	33,222	82,481

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 2: PARTIAL 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO CONSOLIDADO	FORMACIÓN BRUTA DE CAPITAL FIJO	VARIACIÓN TOTAL DE ESTOCKOS	CAPITAL
MILES DE PESOS CORRIENTES								
CLASE 42011 COMERCIO AL POR MAYOR DE ALIMENTOS Y BEBIDAS (EXCEPTO)	17	1,188	86,777	37,004	88,839	1,278	1,051	1,300
CLASE 4202 COMERCIO AL POR MAYOR DE ALIMENTOS Y BEBIDAS	9,758	23,480	1,612,124	1,471,350	1,034,124	13,670	81,467	133,128
CLASE 4203 COMERCIO AL POR MAYOR DE ALIMENTOS Y BEBIDAS (EXCEPTO)	4,701	21,435	307,300	1,862,046	1,780,801	21,019	64,021	95,240
MURBIO	39,344	232,238	7,439,828	39,796,478	29,633,593	784,833	838,043	1,829,874
CLASE 3201 FABRICACIÓN DE CERVEZA	1,346	9,888	37,886	1,895,241	771,881	6,221	6,208	86,447
CLASE 3202 FABRICACIÓN DE MERMELADAS, MERMELADAS Y MERMELADAS DE CEREAL Y SUSTITUTOS	16,029	16,887	1,750,791	16,493,139	8,452,186	37,671	82,111	73,034
CLASE 3203 FABRICACIÓN DE MERMELADAS DE CEREAL Y SUSTITUTOS	300	17,794	71,140	1,880,000	1,038,000	13,330	3,417	16,737
CLASE 4301 COMERCIO AL POR MAYOR DE MOBILIARIO Y EQUIPO DE OFICINA	1,235	12,886	86,494	2,057,101	1,776,287	86,686	110,039	98,107
CLASE 3401 OBRERO Y DECOMPOSICIÓN DE METALES	684	3,046	46,448	480,338	160,439	2,519	3,075	3,104
CLASE 4302 COMERCIO AL POR MAYOR DE PUEBLOS RURALES	16,447	72,311	1,000,001	1,400,000	799,999	28,341	92,334	92,334
MURBIO	188	2,218	198,699	648,778	182,622	21,217	283	21,200
SUBRAMA 2211 PUEBLOS	18	1,023	148,138	401,000	307,000	33,800	87	21,200
SUBRAMA 2212 PUEBLOS RURALES	12	286	30,561	25,707	15,581	145	16	160
TAPES Y TAPICES	7,054	43,233	1,713,496	18,804,148	3,041,047	123,360	198,691	284,641
CLASE 3402 FABRICACIÓN DE CORTINAS, CORTINAS Y SUELOS	1,052	7,084	124,538	779,340	397,300	8,559	4,192	21,126
CLASE 3403 FABRICACIÓN DE CORTINAS, CORTINAS Y SUELOS	889	22,820	1,311,465	6,612,880	2,712,327	143,385	152,768	244,238
CLASE 3404 FABRICACIÓN DE CORTINAS Y CORTINAS	125	9,889	240,578	1,054,500	584,000	41,128	3,124	46,249
CLASE 4301 COMERCIO AL POR MAYOR DE ALUMBRADO, CORTINAS, TAPES Y SUELOS	1,233	6,885	386,470	1,211,000	805,228	34,348	48,807	80,015
CLASE 3405 FABRICACIÓN DE MUEBLES Y OTROS PRODUCTOS DE PLASTICO	56	1,088	82,481	260,488	134,481	403	800	1,300
VITROS, VIDRIOS Y CALZADO	212,491	1,008,474	26,889,488	138,490,448	71,416,688	2,823,873	2,517,813	3,142,994
CLASE 3201 FABRICACIÓN DE VIDRIOS	11	1,080	80,238	1,072,888	361,944	19,500	34,811	36,321
CLASE 3401 COMERCIO DE PRODUCTOS DE VIDRIOS, VIDRIOS Y DE MATERIALES PLÁSTICOS	30	3,102	332,238	1,003,789	89,407	38,009	8,211	95,160
CLASE 3202 COMERCIO DE VIDRIOS, VIDRIOS, VIDRIOS PLÁSTICOS	28	2,000	36,338	30,480	19,113	25,638	11,000	47,447
CLASE 3203 COMERCIO EN SERIE DE BOTA INTERIOR Y DE DORSAL	48	4,430	1,003,408	4,822,578	4,126,709	40,339	116,688	160,217
CLASE 3204 COMERCIO EN SERIE DE BOTA	62	2,810	92,112	2,382,188	1,188,613	62,857	12,950	38,220
CLASE 3205 COMERCIO EN SERIE DE BOTA	1,006	36,723	1,307,240	6,498,209	1,866,607	82,814	86,321	180,814
CLASE 3206 COMERCIO EN SERIE DE BOTA SOCIAL	64	2,807	40,238	205,607	107,787	6,018	1,078	11,008
CLASE 3207 COMERCIO DE BOTA SOBRE BOTA	3,006	11,742	128,334	788,611	322,348	11,017	8,000	23,986
CLASE 3208 COMERCIO DE PRODUCTOS DE MATERIALES PLÁSTICOS	6,483	26,821	1,771,880	8,614,804	2,125,128	68,408	306,834	390,100
CLASE 3209 FABRICACIÓN DE SOMBREROS Y CORBES	1,248	8,724	87,021	381,219	392,990	1,054	1,149	6,881
CLASE 3210 COMERCIO DE OTROS ACCESORIOS DE BOTA	30	2,738	71,781	533,340	288,584	2,511	8,854	11,467
CLASE 3401 FABRICACIÓN DE CALZADO CON CORTINA DE PIEL Y CUIRO	3,388	73,742	1,071,238	14,460,881	5,476,304	260,304	112,288	403,270
CLASE 3402 FABRICACIÓN DE CALZADO CON CORTINA DE TELA	18	8,840	88,538	1,028,184	804,028	81,227	7,380	86,634
CLASE 3403 FABRICACIÓN DE CALZADO DE PIEL	190	3,006	112,644	862,419	220,148	25,689	8,070	34,881
CLASE 3404 FABRICACIÓN DE CALZADO DE PIEL	89	3,210	84,518	307,386	114,344	6,181	5,558	11,598
CLASE 3405 FABRICACIÓN DE CALZADO DE CALZADO DE CUIRO TIPO DE MATERIALES	1,018	5,625	182,238	532,286	236,638	6,088	7,599	15,888
CLASE 3406 FABRICACIÓN DE CALZADO DE PIEL, MATERIALES Y SUELOS	38	6,817	146,404	748,607	412,310	1,128	1,350	15,408
CLASE 3407 FABRICACIÓN DE CALZADO DE TALENTA	1,123	7,887	381,788	1,446,881	634,380	26,676	20,079	34,888
CLASE 4301 COMERCIO AL POR MAYOR DE CALZADO	119	340	13,843	307,987	162,717	4,674	25,100	28,778
CLASE 4302 COMERCIO AL POR MAYOR DE OTROS PRODUCTOS DE CALZADO	30	1,388	136,881	78,210	40,444	8,440	1,846	1,881
CLASE 4303 COMERCIO AL POR MAYOR DE BOTA	90	8,886	328,817	2,771,717	1,034,819	46,768	41,300	5,400
CLASE 4304 COMERCIO AL POR MAYOR DE CALZADO	84	9,820	311,110	1,425,814	2,381,181	20,079	11,000	24,118
CLASE 4305 COMERCIO AL POR MAYOR DE TELA	4,110	30,986	811,619	3,071,000	1,294,818	21,017	98,734	186,771
CLASE 4306 COMERCIO AL POR MAYOR DE CALZADO	1,284	6,840	82,208	671,308	401,708	7,044	30,328	36,141

APPENDIX 3. Partial Copyright Industries in Mexico

Tabla 2: PARTIAL 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO GENCAL BRUTO	FORMACIÓN BRUTA DE CAPITAL FIJO	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
CLASE 48213 (COMERCIO AL POR MENOR DE ARTÍCULOS DE BOUTONERA Y BOUTONERA)	34,148	29,847	211,827	1,242,759	161,748	70,077	85,857	78,934
CLASE 48221 (COMERCIO AL POR MENOR DE ROPA, ACCESORIO DE CUERO Y PIEL)	108,816	211,528	2,706,671	20,893,523	13,283,684	729,834	762,013	3,491,813
CLASE 48222 (COMERCIO AL POR MENOR DE ACCESORIOS DE VESTIR)	5,407	10,824	111,041	732,390	226,223	14,897	34,041	48,050
CLASE 48223 (COMERCIO AL POR MENOR DE ROPA DE CUERO Y PIEL Y DE OTROS ARTÍCULOS DE VESTIR MATERIALES)	5,764	12,210	187,130	1,223,101	733,734	28,638	45,226	77,855
CLASE 48225 (COMERCIO AL POR MENOR DE SORBEROS)	1,638	3,211	19,588	184,678	126,873	1,721	5,412	8,113
CLASE 48228 (COMERCIO AL POR MENOR DE CALZADO)	38,303	36,775	128,768	834,605	522,117	180,880	430,884	67,027
CLASE 11310 (TEXTOS DE CALCETINES Y MEDIAS)	168	10,700	340,286	2,853,011	1,283,374	45,236	15,971	65,284
CLASE 11312 (TEXTOS DE ROPA (EXCEPTO DE PUNTO))	1,072	21,263	878,128	4,205,201	1,475,838	81,279	38,527	109,854
TOTAL PARCIALES	488,827	1,099,887	61,226,862	361,829,976	244,786,204	7,711,887	8,828,223	34,378,628

Source: INEGI

APPENDIX 4. Non-dedicated Support Copyright-Based Industries in Mexico

Tabla 1: NON-DEDICATED, 1998
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCIÓN BRUTA TOTAL	VALOR AGREGADO GENERAL BRUTO	FORMACIÓN BRUTA DE CAPITAL FIJO	VARIACIÓN TOTAL DE EXISTENCIAS	CAPITAL
	1998	1998	1997	1998	1998	1998	1998	1998
VENTAS AL POR MAYOR Y MENUDO								
COMERCIO AL POR MAYOR DE ALIMENTOS	283	8,000	10,000	100,000	100,000	5,000	200	83,711
COMERCIO AL POR MAYOR DE Bienes Durables	0	0	0	0	0	0	0	0
COMERCIO AL POR MAYOR DE Bienes de Consumo	1,400	33,000	33,000	1,000,000	1,000,000	1,000	100	129,101
COMERCIO AL POR MAYOR DE Productos Intermedios	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	303,511
COMERCIO AL POR MAYOR DE Otros Bienes	1,117	30,000	30,000	1,000,000	1,000,000	1,000	100	110,990
COMERCIO AL POR MAYOR DE Bienes de Consumo	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	102,742
COMERCIO AL POR MAYOR DE Bienes de Consumo	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	123,870
COMERCIO AL POR MAYOR De Otros	117	0	0	0	0	0	0	8,307
COMERCIO AL POR MAYOR De Otros	117	0	0	0	0	0	0	26,177
COMERCIO AL POR MAYOR De Otros	1,200	30,000	30,000	1,000,000	1,000,000	1,000	100	79,467
COMERCIO AL POR MAYOR De Otros	100	0	0	0	0	0	0	77,881
COMERCIO AL POR MAYOR De Otros	100	0	0	0	0	0	0	167,922
COMERCIO AL POR MAYOR De Otros	1,200	30,000	30,000	1,000,000	1,000,000	1,000	100	120,751
COMERCIO AL POR MAYOR De Otros	1,117	0	0	0	0	0	0	61,894
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	285,399
COMERCIO AL POR MAYOR De Otros	10,151	100,000	100,000	1,000,000	1,000,000	1,000	100	382,840
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	181,739
COMERCIO AL POR MAYOR De Otros	14,311	100,000	100,000	1,000,000	1,000,000	1,000	100	114,500
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	29,089
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	1,077
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	17,211
COMERCIO AL POR MAYOR De Otros	1,117	0	0	0	0	0	0	72,627
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	112,834
COMERCIO AL POR MAYOR De Otros	117	0	0	0	0	0	0	7,238
COMERCIO AL POR MAYOR De Otros	10,151	100,000	100,000	1,000,000	1,000,000	1,000	100	333,000
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	58,834
COMERCIO AL POR MAYOR De Otros	1,117	0	0	0	0	0	0	31,838
COMERCIO AL POR MAYOR De Otros	100	0	0	0	0	0	0	13,066
COMERCIO AL POR MAYOR De Otros	1,000	30,000	30,000	1,000,000	1,000,000	1,000	100	952,449
COMERCIO AL POR MAYOR De Otros	117	0	0	0	0	0	0	13,066
TRANSPORTE EN GENERAL								
COMERCIO AL POR MAYOR De Otros	0	0	0	0	0	0	0	2,991,474
COMERCIO AL POR MAYOR De Otros	100	0	0	0	0	0	0	-189,007
COMERCIO AL POR MAYOR De Otros	1	10,000	10,000	1,000,000	1,000,000	1,000	100	2,207,372
COMERCIO AL POR MAYOR De Otros	1	10,000	10,000	1,000,000	1,000,000	1,000	100	278,177
COMERCIO AL POR MAYOR De Otros	100	1,000	1,000	10,000	10,000	1,000	100	3,134
COMERCIO AL POR MAYOR De Otros	1,117	10,000	10,000	1,000,000	1,000,000	1,000	100	28,234

Source: INEGI

APPENDIX 4. Non-dedicated Support Copyright-Based Industries in Mexico

Tabla 2: NON-DEDICATED, 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	EMPLEADOS ECONÓMICOS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PRODUCCION BRUTA TOTAL	VALOR AGREGADO CENSAL BRUTO	FORMACION BRUTA DE CAPITAL FIJO	VALOR CANTONAL DE EQUIPAMIENTO	CAPITAL
VITIBAL NACIONAL (PROMEDIO)	51,841	1,044,070	42,844,498	153,294,294	19,298,717	4,440,000	10,317,004	17,254,234
AGRICULTURA, GANADERIA Y SILVICULTURA	14	228	462	1,032	22,000	340	14,000	154,311
INDUSTRIAS Y CONSTRUCCION	37	527	10,417	4,882	1,270,000	5,200	36,000	228,222
COMERCIO AL POR MENOR Y AL POR MAYOR	100	3,210	148,584	222,228	74,000	84,000	36,000	1,226,953
INDUSTRIAS Y CONSTRUCCION DE EQUIPAMIENTO	243	3,540	147,460	199,660	22,000	49,000	36,000	398,211
INDUSTRIAS Y CONSTRUCCION DE MAQUINARIA Y EQUIPO	149	1,080	37,720	4,884,000	1,002,700	3,600	27,000	361,628
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS	324	2,236	70,840	146,776	2,000	12,000	36,000	210,798
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION	298	2,210	126,420	6,200,000	4,222,700	11,000	22,000	4,333,337
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE TEXTIL	37	390	30,130	4,816,000	2,000	20,000	36,000	132,038
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE PAPIER	60	340	30,240	2,200	3,600	1,000	36,000	69,720
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE QUIMICA Y PETROLIO	1,00	1,247	46,880	100,000	2,700,000	6,200	10,000	66,721
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE METAL Y MAQUINARIA	98	840	37,280	140,000	340,000	2,000	36,000	126,110
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE MADERA Y PRODUCTOS DE MADERA	103	1,680	107,100	2,800	3,600	1,000	40,000	258,880
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE PLASTICO Y PRODUCTOS DE CAUCHO	120	1,294	46,880	4,720,000	1,120,000	6,700	40,000	1,06,611
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE PASTA Y PRODUCTOS DE PASTA DE CELULOSA	120	4,120	70,000	100,000	1,000,000	3,000	36,000	135,658
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE PAPEL Y PRODUCTOS DE PAPEL	120	3,780	126,870	20,000	1,000	1,000	10,000	163,218
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	66,94	69,04	343,77	2,700,000	3,000	4,000	10,000	2,625,538
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,88	16,71	14,070	6,760	2,000	1,000	16,000	2,690,248
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	4,20	6,50	1,660	1,03,70	1,000	1,000	16,000	1,292,018
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,62	3,60	46,40	2,200	1,000	1,000	16,000	1,75,143
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,64	3,01	10,20	10,000	2,000	1,000	16,000	22,289
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,00	1,20	10,000	1,000,000	1,000	1,000	16,000	132,101
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,00	1,00	1,000	1,000	1,000	1,000	16,000	81,782
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	2,40	3,10	1,000	1,000	4,000	1,000	16,000	340,201
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	66	1,200	5,70	3,500	20,000	1,000	16,000	33,727
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	14,00	1,000	3,000	2,700,000	2,000	1,000	16,000	2,293,912
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,80	3,70	1,000	1,000	1,000	1,000	16,000	290,543
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	3,00	2,00	4,000	2,000	2,000	1,000	16,000	138,227
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,00	3,04	2,000	2,000	2,000	1,000	16,000	222,000
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	1,00	4,74	3,000	2,000	2,000	1,000	16,000	412,374
INDUSTRIAS Y CONSTRUCCION DE PRODUCTOS DE ALIMENTACION Y BEBIDAS	10	1,100	1,000	1,000	1,000	1,000	16,000	8,205
TRANSPORTE EN GENERAL	30,444	628,646	66,843,120	198,271,240	112,220,890	13,284,690	473,294	18,794,288
TRANSPORTE POR FERROCARRIL	4	228	1,613	6,700	14,000	3,000	16,000	280,540
TRANSPORTE POR AVION	10	310	77,000	1,400,000	10,000	1,000	16,000	1,000,076
TRANSPORTE POR CAMION	7	1,000	100,000	1,000,000	1,000	1,000	16,000	1,010,000
TRANSPORTE POR BUQUE	10	300	1,000	1,000	1,000	1,000	16,000	1,11,788
TRANSPORTE POR TUBERIA	60	500	1,000	1,000	1,000	1,000	16,000	5,880
TRANSPORTE POR OTROS MEDIOS	1,00	1,000	1,000	1,000	1,000	1,000	16,000	1,000

APPENDIX 4. Non-dedicated Support Copyright-Based Industries in Mexico

Tabla 2: NON-DEDICATED, 2003
(Thousands of pesos in nominal terms)

ENTIDAD FEDERATIVA, SECTOR, SUBSECTOR, RAMA Y SUBRAMA DE ACTIVIDAD	UNIDADES ECONÓMICAS	TOTAL DE PERSONAL EMPLEADO	TOTAL DE REMUNERACIONES	PROYECCIÓN BRUTA TOTAL	VALOR NUMÉRICO DENOMINADOR BRUTO	FORMACIÓN BRUTA DE CAPITAL Fijo	VARIACIÓN TOTAL DE SOSTENIBILIDAD	CAPITAL
SECTOR AGRICULTURA, GANADERÍA Y PESQUERÍA	1,007	10,233	1,322,353	1,500,000	1,111,111	1,100,000	4,500	1,851,478
SECTOR MINERO Y PETROLERO	90	4,930	1,663,000	890,000	1,700,000	1,170	0	11,781
SECTOR DE ELECTRICIDAD Y ENERGÍA CALIENTE Y FRIAS	1,107	24,657	1,965,000	1,400,000	1,300,000	1,310	1,070	91,580
SECTOR DE GASOLINA Y PRODUCTOS DERIVADOS DE LA NAFTALINA	1,000	4,000	1,000,000	1,000,000	1,000,000	1,000,000	4,000	1,214,000
SECTOR DE TRANSPORTES AUTOMÓVILES, FERROVIARIOS Y AEREA	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE TRANSPORTES FERRÓVIARIOS Y AEREA	1,000	10,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000	1,000,000
SECTOR DE TRANSPORTES LOCAL Y COMERCIALES	1,000	10,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000	1,000,000
SECTOR DE LA SALUD Y SERVICIOS SOCIALES	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE SERVICIOS FINANCIEROS Y SEGUROS	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE TELECOMUNICACIONES	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE SERVICIOS DE ALIMENTACIÓN Y BEBIDAS	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE SERVICIOS DE TURISMO Y RECREACIÓN	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE SERVICIOS DE OTROS SECTORES	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
TOTAL DEL SECTOR	11,000	110,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR TELEFÓNICO E INTERNET	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE TELEFONÍA Fija	1	1,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000	1,000,000
SECTOR DE TELEFONÍA Móvil y Datos	10	10,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000	10,000,000
SECTOR DE INTERNET	10	10,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000	10,000,000
SECTOR DE SERVICIOS DE TELECOMUNICACIONES	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
SECTOR DE SERVICIOS DE OTROS SECTORES	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
TOTAL DEL SECTOR TELEFÓNICO E INTERNET	1,100	10,000	1,100,000	1,100,000	1,100,000	1,100,000	10,000	1,100,000
TOTAL DE LOS SECTORES	12,100	120,000	1,210,000	1,210,000	1,210,000	1,210,000	20,000	1,210,000

APPENDIX 5. List of Classes and Sub-Classes by Sector

CORE COPYRIGHT BASED INDUSTRIES
ARTES VISUALES Y GRÁFICAS
CLASE 435312 COMERCIO AL POR MAYOR DE ARTICULOS Y ACCESORIOS PARA DISEÑO Y PINTURA ARTISTICA
CLASE 466313 COMERCIO AL POR MENOR DE ANTIG. EDADES Y OBRAS DE ARTE
CLASE 541340 SERVICIOS DE DIBUJO
CLASE 541430 DISEÑO GRAFICO
CLASE 541490 DISEÑO DE MODAS Y OTROS DISEÑOS ESPECIALIZADOS
CLASE 611611 ESCUELAS DE ARTE PERTENECIENTES AL SECTOR PRIVADO
SUBRAMA 71151 ARTISTAS Y TECNICOS INDEPENDIENTES
SOFTWARE Y BASES DE DATOS
CLASE 511210 EDICION DE SOFTWARE, EXCEPTO A TRAVES DE INTERNET
CLASE 518210 PROCESAMIENTO ELECTRONICO DE INFORMACION, HOSPEDAJE DE PAGINAS WEB Y OTROS SERVICIOS RELACIONADOS
CLASE 541510 SERVICIOS DE CONSULTORIA EN COMPUTACION
SUBRAMA 71312 CASAS DE JUEGOS ELECTRONICOS
CLASE 511191 EDICION DE OTROS MATERIALES NO INTEGRADA CON LA IMPRESION, EXCEPTO A TRAVES DE INTERNET
CLASE 511141 EDICION DE DIRECTORIOS Y DE LISTAS DE CORREO NO INTEGRADA CON LA IMPRESION, EXCEPTO A TRAVES DE INTERNET
CLASE 516110 CREACION Y DIFUSION DE CONTENIDO EXCLUSIVAMENTE A TRAVES DE INTERNET
FOTOGRAFIA
CLASE 541920 SERVICIOS DE FOTOGRAFIA
SUBRAMA 81291 SERVICIOS DE REVELADO DE FOTOGRAFIAS
CLASE 519121 BIBLIOTECAS Y ARCHIVOS DEL SECTOR PRIVADO
MÚSICA, PRODUCCIONES TEATRALES Y ÓPERAS
CLASE 334610 FABRICACION Y REPRODUCCION DE MEDIOS MAGNETICOS Y OPTICOS
CLASE 433311 COMERCIO AL POR MAYOR DE DISCOS Y CASETES
CLASE 465211 COMERCIO AL POR MENOR DE DISCOS Y CASETES
CLASE 512210 PRODUCTORAS DISCOGRAFICAS
CLASE 512220 PRODUCCION Y DISTRIBUCION DE DISCOS Y CINTAS MAGNETOFONICAS
CLASE 512230 EDITORAS DE MUSICA
CLASE 512240 GRABACION DE DISCOS Y CINTAS MAGNETOFONICAS
CLASE 512290 OTROS SERVICIOS DE GRABACION DEL SONIDO
CLASE 561590 OTROS SERVICIOS DE RESERVACIONES
SUBRAMA 71111 COMPAÑIAS DE TEATRO
SUBRAMA 71112 COMPAÑIAS DE DANZA
SUBRAMA 71113 CANTANTES Y GRUPOS MUSICALES
SUBRAMA 71119 OTRAS COMPAÑIAS Y GRUPOS DE ESPECTACULOS ARTISTICOS
SUBRAMA 71131 PROMOTORES CON INSTALACIONES PARA LA PRESENTACION DE ESPECTACULOS ARTISTICOS, DEPORTIVOS Y SIMILARES
SUBRAMA 71132 PROMOTORES DE ESPECTACULOS ARTISTICOS, DEPORTIVOS Y SIMILARES QUE NO CUENTAN CON INSTALACIONES PARA PRESENTARLOS
SUBRAMA 71141 AGENTES Y REPRESENTANTES DE ARTISTAS, DEPORTISTAS Y SIMILARES

APPENDIX 5. List of Classes and Sub-Classes by Sector

CORE COPYRIGHT BASED INDUSTRIES
PELÍCULAS Y VIDEOS
CLASE 512111 PRODUCCIÓN DE PELÍCULAS CINEMATOGRAFICAS Y VIDEOS
CLASE 512113 PRODUCCIÓN DE VIDEOCLIPS, COMERCIALES Y OTROS MATERIALES AUDIOVISUALES
CLASE 512120 DISTRIBUCIÓN DE PELÍCULAS CINEMATOGRAFICAS, VIDEOS Y OTROS MATERIALES AUDIOVISUALES
CLASE 512130 EXHIBICIÓN DE PELÍCULAS CINEMATOGRAFICAS, VIDEOS Y OTROS MATERIALES AUDIOVISUALES
CLASE 512190 SERVICIOS DE POSTPRODUCCION Y OTROS SERVICIOS PARA LA INDUSTRIA FILMICA Y DEL VIDEO
SUBRAMA 53223 ALQUILER DE VIDEOCASETES Y DISCOS
CLASE 519121 BIBLIOTECAS Y ARCHIVOS DEL SECTOR PRIVADO
PRENSA Y LITERATURA
CLASE 323111 IMPRESIÓN DE LIBROS, PERIÓDICOS Y REVISTAS
CLASE 323119 IMPRESIÓN DE FORMAS CONTINUAS Y OTROS IMPRESOS
CLASE 323120 INDUSTRIAS CONEXAS A LA IMPRESIÓN
CLASE 433420 COMERCIO AL POR MAYOR DE LIBROS
CLASE 433430 COMERCIO AL POR MAYOR DE REVISTAS Y PERIÓDICOS
CLASE 465312 COMERCIO AL POR MENOR DE LIBROS
CLASE 465313 COMERCIO AL POR MENOR DE PERIÓDICOS Y REVISTAS
CLASE 511111 EDICIÓN DE PERIÓDICOS NO INTEGRADA CON LA IMPRESION, EXCEPTO A TRAVES DE INTERNET
CLASE 511121 EDICIÓN DE REVISTAS Y OTRAS PUBLICACIONES PERIODICAS NO INTEGRADA CON LA IMPRESION, EXCEPTO A TRAVES DE INTERNET
CLASE 511132 EDICIÓN DE PERIÓDICOS INTEGRADA CON LA IMPRESION
CLASE 511122 EDICIÓN DE REVISTAS Y OTRAS PUBLICACIONES PERIODICAS INTEGRADA CON LA IMPRESION
CLASE 511131 EDICIÓN DE LIBROS NO INTEGRADA CON LA IMPRESION, EXCEPTO A TRAVES DE INTERNET
CLASE 511132 EDICIÓN DE LIBROS INTEGRADA CON LA IMPRESION
CLASE 511142 EDICIÓN DE DIRECTORIOS Y DE LISTAS DE CORREO INTEGRADA CON LA IMPRESION
CLASE 511192 EDICIÓN DE OTROS MATERIALES INTEGRADA CON LA IMPRESION
CLASE 519110 AGENCIAS NOTICIOSAS
CLASE 519121 BIBLIOTECAS Y ARCHIVOS DEL SECTOR PRIVADO
CLASE 541930 SERVICIOS DE TRADUCCION E INTERPRETACION
CLASE 561410 SERVICIOS DE PREPARACION DE DOCUMENTOS
RADIOS Y TELEVISIÓN
CLASE 512112 PRODUCCIÓN DE PROGRAMAS PARA LA TELEVISIÓN
CLASE 515110 TRANSMISIÓN DE PROGRAMAS DE RADIO, EXCEPTO A TRAVES DE INTERNET
CLASE 515120 TRANSMISIÓN DE PROGRAMAS DE TELEVISION, EXCEPTO A TRAVES DE INTERNET
CLASE 515210 PRODUCCIÓN DE PROGRAMACION DE CANALES PARA SISTEMAS DE TELEVISION POR CABLE O SATELITALES, EXCEPTO A TRAVES DE INTERNET
CLASE 517510 DISTRIBUCIÓN POR SUSCRIPCIÓN DE PROGRAMAS DE TELEVISION, EXCEPTO A TRAVES DE INTERNET
CLASE 561490 OTROS SERVICIOS DE APOYO SECRETARIAL Y SIMILARES
CLASE 519110 AGENCIAS NOTICIOSAS
PUBLICIDAD
CLASE 339950 FABRICACIÓN DE ANUNCIOS
CLASE 437210 COMERCIO AL POR MAYOR POR MEDIOS MASIVOS DE COMUNICACION Y OTROS MEDIOS
CLASE 541910 AGENCIAS DE PUBLICIDAD
CLASE 541930 AGENCIAS DE COMPRA DE MEDIOS A PETICIÓN DEL CLIENTE
CLASE 541940 AGENCIAS DE REPRESENTACION DE MEDIOS
CLASE 541950 AGENCIAS DE ANUNCIOS PUBLICITARIOS
CLASE 541960 AGENCIAS DE PUBLICIDAD QUE OPERAN POR CORREO DIRECTO
CLASE 541970 DISTRIBUCIÓN DE MATERIAL PUBLICITARIO
CLASE 541990 OTROS SERVICIOS DE PUBLICIDAD
SOCIEDADES DE GESTIÓN COLECTIVA
SUBRAMA 81334 FEDERACIONES Y OTRAS ASOCIACIONES REGULADORIAS DE ACTIVIDADES RECREATIVAS

APPENDIX 5. List of Classes and Sub-Classes by Sector

NON –CORE COPYRIGHT-BASED INDUSTRIES	
INTERDEPENDIENTES:	
COMPUTADORAS Y EQUIPO	
CLASE 334110	FABRICACIÓN DE COMPUTADORAS Y EQUIPO PERIFÉRICO
CLASE 485411	COMERCIO AL POR MAYOR DE EQUIPO Y ACCESORIOS DE COMPUTO
CLASE 466211	COMERCIO AL POR MENOR DE COMPUTADORAS Y SUS ACCESORIOS
SUBRAMA 53242	ALQUILER DE EQUIPO DE COMPUTO Y DE OTRAS MAQUINAS Y MOBILIARIO DE OFICINA
CLASE 334290	FABRICACIÓN DE OTROS EQUIPOS DE COMUNICACION
CLASE 334210	FABRICACION DE APARATOS TELEFÓNICOS
INTERDEPENDIENTES: ELECTRÓNICOS	
CLASE 334310	FABRICACIÓN DE EQUIPO DE AUDIO Y DE VIDEO
CLASE 334410	FABRICACIÓN DE COMPONENTES ELECTRONICOS
SUBRAMA 53221	ALQUILER DE APARATOS ELECTRICOS Y ELECTRONICOS PARA EL HOGAR
CLASE 334220	FABRICACION DE EQUIPO DE TRANSMISION Y RECEPCION DE SEÑALES DE RADIO, TELEVISION Y CABLE
INTERDEPENDIENTES: FOTOCOPIADORAS	
CLASE 333312	FABRICACION DE MAQUINAS FOTOCOPIADORAS
CLASE 561430	SERVICIOS DE FOTOCOPIADO, FAX Y AFINES
INTERDEPENDIENTES: FOTOGRAFÍA Y CINE	
CLASE 333311	FABRICACION DE APARATOS FOTOGRAFICOS
CLASE 435311	COMERCIO AL POR MAYOR DE EQUIPO DE TELECOMUNICACIONES, FOTOGRAFÍA Y CINEMATOGRAFÍA
CLASE 465213	COMERCIO AL POR MENOR DE EQUIPO Y MATERIAL FOTOGRAFICO
INTERDEPENDIENTES: MATERIAL DE GRABACIÓN	
CLASE 325992	FABRICACIÓN DE PELICULAS, PLACAS Y PAPEL FOTOSENSIBLE PARA FOTOGRAFÍA
CLASE 325910	FABRICACIÓN DE TINTAS PARA IMPRESIÓN
INTERDEPENDIENTES: INSTRUMENTOS MUSICALES	
CLASE 339991	FABRICACIÓN Y ENSAMBLE DE INSTRUMENTOS MUSICALES
CLASE 465215	COMERCIO AL POR MENOR DE INSTRUMENTOS MUSICALES
INTERDEPENDIENTE: PAPEL	
CLASE 322110	FABRICACIÓN DE CELULOSA
CLASE 322121	FABRICACIÓN DE PAPEL EN PLANTAS INTEGRADAS
CLASE 322122	FABRICACIÓN DE PAPEL A PARTIR DE CELULOSA
CLASE 322132	FABRICACIÓN DE CARTÓN Y CARTONCILLO A PARTIR DE CELULOSA
CLASE 322299	FABRICACIÓN DE OTROS PRODUCTOS DE PAPEL Y CARTÓN
CLASE 333291	FABRICACIÓN DE MAQUINARIA Y EQUIPO PARA LA IMPRESIÓN
CLASE 339940	FABRICACIÓN DE ARTICULOS Y ACCESORIOS PARA ESCRITURA, PINTURA, DIBUJO Y ACTIVIDADES DE OFICINA
CLASE 433410	COMERCIO AL POR MAYOR DE ARTICULOS DE PAPELERÍA
CLASE 465311	COMERCIO AL POR MENOR DE ARTICULOS DE PAPELERÍA
CLASE 322230	FABRICACIÓN DE PRODUCTOS DE PAPELERÍA

APPENDIX 5. List of Classes and Sub-Classes by Sector

NON-CORE COPYRIGHT-BASED INDUSTRIES	
INDUSTRIAS VARIAS	
MUEBLES	
CLASE 337110	FABRICACION DE COCINAS
CLASE 337120	FABRICACION DE MUEBLES, EXCEPTO COCINAS Y MUEBLES DE OFICINA Y ESTANTERIA
CLASE 337210	FABRICACION DE MUEBLES DE OFICINA Y ESTANTERIA
CLASE 435412	COMERCIO AL POR MAYOR DE MOBILIARIO Y EQUIPO DE OFICINA
CLASE 541410	DISEÑO Y DECORACION DE INTERIORES
CLASE 466111	COMERCIO AL POR MENOR DE MUEBLES PARA EL HOGAR
MUSEOS	
SUBRAMA 71211	MUSEOS
SUBRAMA 71212	SITIOS HISTORICOS
TAPETES Y TAPICES	
CLASE 314110	TEJIDO Y CONFECCION DE ALFOMBRAS Y TAPETES
CLASE 314120	CONFECCION DE CORTINAS, BLANCOS Y SIMILARES
CLASE 337920	FABRICACION DE PERSIANAS Y CORTINEROS
CLASE 486311	COMERCIO AL POR MENOR DE ALFOMBRAS, CORTINAS, TAPICES Y SIMILARES
CLASE 314999	FABRICACION DE BANDERAS Y OTROS PRODUCTOS CONFECCIONADOS
VESTIDO, TEXTILES Y CALZADO	
CLASE 313320	RECUBRIMIENTO DE TELAS
CLASE 314912	CONFECCION DE PRODUCTOS DE TEXTILES RECUBIERTOS Y DE MATERIALES SUCEDANEOS
CLASE 315210	CONFECCION DE ROPA DE CUERO, PIEL Y MATERIALES SUCEDANEOS
CLASE 315221	CONFECCION EN SERIE DE ROPA INTERIOR Y DE DORMIR
CLASE 315222	CONFECCION EN SERIE DE CAMISAS
CLASE 315223	CONFECCION EN SERIE DE UNIFORMES
CLASE 315224	CONFECCION EN SERIE DE ROPA ESPECIAL
CLASE 315225	CONFECCION DE ROPA SOBRE MEDIDA
CLASE 315229	CONFECCION DE OTRA ROPA DE MATERIALES TEXTILES
CLASE 315991	FABRICACION DE SOMBREROS Y GORRAS
CLASE 315999	CONFECCION DE OTROS ACCESORIOS DE VESTIR
CLASE 316211	FABRICACION DE CALZADO CON CORTE DE PIEL Y CUERO
CLASE 316212	FABRICACION DE CALZADO CON CORTE DE TELA
CLASE 316213	FABRICACION DE CALZADO DE PLASTICO
CLASE 316214	FABRICACION DE CALZADO DE HULE
CLASE 316219	FABRICACION DE HUARACHES Y CALZADO DE OTRO TIPO DE MATERIALES
CLASE 316991	FABRICACION DE BOLSOS DE MANO, MALETAS Y SIMILARES
CLASE 316992	FABRICACION DE ARTICULOS DE TALABARTERIA
CLASE 432112	COMERCIO AL POR MAYOR DE BLANCOS
CLASE 432119	COMERCIO AL POR MAYOR DE OTROS PRODUCTOS TEXTILES
CLASE 432120	COMERCIO AL POR MAYOR DE ROPA
CLASE 432130	COMERCIO AL POR MAYOR DE CALZADO
CLASE 463111	COMERCIO AL POR MENOR DE TELAS
CLASE 463112	COMERCIO AL POR MENOR DE BLANCOS
CLASE 463113	COMERCIO AL POR MENOR DE ARTICULOS DE MERCERIA Y BONETERIA
CLASE 463211	COMERCIO AL POR MENOR DE ROPA, EXCEPTO DE CUERO Y PIEL
CLASE 463212	COMERCIO AL POR MENOR DE ACCESORIOS DE VESTIR
CLASE 463213	COMERCIO AL POR MENOR DE ROPA DE CUERO Y PIEL Y DE OTROS ARTICULOS DE ESTOS MATERIALES
CLASE 463215	COMERCIO AL POR MENOR DE SOMBREROS
CLASE 463310	COMERCIO AL POR MENOR DE CALZADO
CLASE 315110	TEJIDO DE CALCETINES Y MEDIAS
CLASE 315192	TEJIDO DE ROPA EXTERIOR DE PUNTO

APPENDIX 5. List of Classes and Sub-Classes by Sector

NON-CORE COPYRIGHT BASED INDUSTRIES	
INDUSTRIAS NO DEDICADAS	
VENTAS AL MAYOREO Y MENUDEO	
CLASE 432111	COMERCIO AL POR MAYOR DE FIBRAS, HILOS Y TELAS
CLASE 433510	COMERCIO AL POR MAYOR DE ELECTRODOMESTICOS MENORES Y APARATOS DE LINEA BLANCA
CLASE 434221	COMERCIO AL POR MAYOR DE MATERIALES METALICOS
CLASE 434223	COMERCIO AL POR MAYOR DE PRODUCTOS QUIMICOS PARA USO INDUSTRIAL
CLASE 434223	COMERCIO AL POR MAYOR DE ENVASES, PAPEL Y CARTON
CLASE 434224	COMERCIO AL POR MAYOR DE MADERA
CLASE 434225	COMERCIO AL POR MAYOR DE EQUIPO Y MATERIAL ELECTRICO
CLASE 434226	COMERCIO AL POR MAYOR DE PINTURA
CLASE 434227	COMERCIO AL POR MAYOR DE VIDRIOS Y ESPEJOS
CLASE 434229	COMERCIO AL POR MAYOR DE OTRAS MATERIAS PRIMAS PARA OTRAS INDUSTRIAS
CLASE 435210	COMERCIO AL POR MAYOR DE MAQUINARIA Y EQUIPO PARA LA CONSTRUCCION Y LA MINERIA
CLASE 435220	COMERCIO AL POR MAYOR DE MAQUINARIA Y EQUIPO PARA LA INDUSTRIA MANUFACTURERA
CLASE 435313	COMERCIO AL POR MAYOR DE MOBILIARIO, EQUIPO E INSTRUMENTAL MEDICO Y DE LABORATORIO
CLASE 435319	COMERCIO AL POR MAYOR DE MAQUINARIA Y EQUIPO PARA OTROS SERVICIOS Y PARA ACTIVIDADES COMERCIALES
CLASE 435419	COMERCIO AL POR MAYOR DE OTRA MAQUINARIA Y EQUIPO DE USO GENERAL
CLASE 461110	COMERCIO AL POR MENOR EN TIENDAS DE ABARROTES, ULTRAMARINOS Y MISCELANEAS
CLASE 462111	COMERCIO AL POR MENOR EN SUPERMERCADOS
CLASE 462112	COMERCIO AL POR MENOR EN MINISUPERS
CLASE 465912	COMERCIO AL POR MENOR DE REGALOS
CLASE 465913	COMERCIO AL POR MENOR DE ARTICULOS RELIGIOSOS
CLASE 465915	COMERCIO AL POR MENOR EN TIENDAS IMPORTADORAS
CLASE 465919	COMERCIO AL POR MENOR DE OTROS ARTICULOS DE USO PERSONAL
CLASE 466212	COMERCIO AL POR MENOR DE TELEFONOS Y OTROS APARATOS DE COMUNICACION
CLASE 466314	COMERCIO AL POR MENOR DE LAMPARAS ORNAMENTALES Y CANDILES
CLASE 467111	COMERCIO AL POR MENOR EN FERRETERIAS Y TIAPALERIAS
CLASE 467112	COMERCIO AL POR MENOR DE PINTURA
CLASE 467113	COMERCIO AL POR MENOR DE VIDRIOS Y ESPEJOS
CLASE 467119	COMERCIO AL POR MENOR DE MATERIALES PARA LA AUTOCONSTRUCCION
CLASE 468412	COMERCIO AL POR MENOR DE GAS EN CILINDROS Y PARA TANQUES ESTACIONARIOS
CLASE 469210	COMERCIO AL POR MENOR POR MEDIOS MASIVOS DE COMUNICACION Y OTROS MEDIOS

APPENDIX 5. List of Classes and Sub-Classes by Sector

NON-CORE COPYRIGHT BASED INDUSTRIES	
INDUSTRIAS NO DEDICADAS	
TRANSPORTE EN GENERAL	
SUBRAMA 48111	TRANSPORTE AEREO REGULAR
SUBRAMA 48121	TRANSPORTE AEREO NO REGULAR
SUBRAMA 48211	TRANSPORTE POR FERROCARRIL
SUBRAMA 48311	TRANSPORTE MARITIMO
SUBRAMA 48321	TRANSPORTE POR AGUAS INTERIORES
SUBRAMA 48411	AUTOTRANSPORTE LOCAL DE CARGA GENERAL
SUBRAMA 48412	AUTOTRANSPORTE FORANEO DE CARGA GENERAL
SUBRAMA 48421	SERVICIO DE MUDANZAS
SUBRAMA 48422	AUTOTRANSPORTE LOCAL DE CARGA ESPECIALIZADO, EXCEPTO MUDANZAS
SUBRAMA 48423	AUTOTRANSPORTE FORANEO DE CARGA ESPECIALIZADO, EXCEPTO MUDANZAS
SUBRAMA 48511	TRANSPORTE COLECTIVO DE PASAJEROS URBANO Y SUBURBANO
SUBRAMA 48521	TRANSPORTE DE PASAJEROS INTERURBANO Y RURAL
SUBRAMA 48541	TRANSPORTE ESCOLAR Y DE PERSONAL
SUBRAMA 48551	ALQUILER DE AUTOBUSES CON CHOFER
SUBRAMA 48599	OTRO TRANSPORTE TERRESTRE DE PASAJEROS
SUBRAMA 48621	TRANSPORTE DE GAS NATURAL POR DUCTOS
SUBRAMA 48691	TRANSPORTE POR DUCTOS DE PRODUCTOS REFINADOS DEL PETROLEO
SUBRAMA 48711	TRANSPORTE TURISTICO POR TIERRA
SUBRAMA 48721	TRANSPORTE TURISTICO POR AGUA
SUBRAMA 48799	OTRO TRANSPORTE TURISTICO
SUBRAMA 48811	OPERACIONES AEROPORTUARIAS
SUBRAMA 48819	OTROS SERVICIOS RELACIONADOS CON EL TRANSPORTE AEREO
SUBRAMA 48821	SERVICIOS RELACIONADOS CON EL TRANSPORTE POR FERROCARRIL
SUBRAMA 48831	ADMINISTRACION DE PUERTOS Y MUELLES
SUBRAMA 48832	SERVICIOS DE CARGA Y DESCARGA PARA EL TRANSPORTE POR AGUA
SUBRAMA 48833	SERVICIOS PARA LA NAVEGACION POR AGUA
SUBRAMA 48839	OTROS SERVICIOS RELACIONADOS CON EL TRANSPORTE POR AGUA
SUBRAMA 48841	REMOLQUE DE VEHICULOS DE MOTOR
SUBRAMA 48849	OTROS SERVICIOS RELACIONADOS CON EL TRANSPORTE POR CARRETERA
SUBRAMA 48851	SERVICIOS DE INTERMEDIACION PARA EL TRANSPORTE DE CARGA
SUBRAMA 48899	OTROS SERVICIOS RELACIONADOS CON EL TRANSPORTE
TELEFONIA E INTERNET	
CLASE 517111	TELEFONIA TRADICIONAL
CLASE 517119	TELEGRAFIA Y OTRAS TELECOMUNICACIONES ALAMBRICAS
CLASE 517211	TELEFONIA CELULAR
CLASE 517219	OTRAS TELECOMUNICACIONES INALAMBRICAS, EXCEPTO LOS SERVICIOS DE SATELITES
CLASE 518110	PROVEEDORES DE ACCESO A INTERNET Y SERVICIOS DE BÚSQUEDA EN LA RED

APPENDIX 6. Selection of NAICS Classes and Subdivisions

Industry	Subgroups	ISIC Rev.3.1, code	Description	NAICS: Code and description
Press and Literature	Authors, writers, translators	9214 7499	Dramatic art, music and other arts activities Other business activities n.e.c. (for translation and interpretation)	Class 323111 Printing of books, newspapers and magazines Class 323119 Printing periodicals and other publishing Class 323120 Allied industries to printing Class 433420 Wholesale of books Class 433430 Wholesale of magazines and newspapers
	Newspapers	2212	Publishing of newspapers, journals and periodicals	Class 465312 Retail of books Class 465313 Retail of magazines and newspapers
	News agencies	9220	News agency activities	Class 511111 Edition of newspapers not integrated with printing Class 511121 Edition of magazines and other periodicals not integrated with printing Class 511112 Edition of newspapers integrated with printing Class 511122 Edition of magazines and other periodicals integrated with printing
	Magazines	2212	Publishing of newspapers, journals and periodicals	Class 511131 Edition of books not integrated with printing Class 511132 Edition of books integrated with printing Class 511142 Edition of directories integrated with printing Class 511192 Edition of other materials integrated with printing Class 519110 News agencies Class 519121 Private libraries and files Class 541930 Translation and interpretation services Class 561410 Document preparation services
	Book publishing	2211	Publishing of books, brochures and other publications	Class 511111 Edition of newspapers not integrated with printing
	Cards and maps, directories and other published material	2219	Other publishing	Class 511111 Edition of newspapers not integrated with printing
	Pre-press, printing and post-press of books, magazines, newspapers, advertising materials	2221 2222	Printing Service activities related to printing	Class 511111 Edition of newspapers not integrated with printing
	Press and literature retail and wholesale (bookstores, newsstands, etc.)	5139 5239	Wholesale of other household goods Other retail sale	Class 511111 Edition of newspapers not integrated with printing Class 511112 Edition of newspapers integrated with printing Class 511122 Edition of magazines and other periodicals integrated with printing Class 511131 Edition of books not integrated with printing Class 511132 Edition of books integrated with printing Class 511142 Edition of directories integrated with printing Class 511192 Edition of other materials integrated with printing Class 519110 News agencies Class 519121 Private libraries and files Class 541930 Translation and interpretation services Class 561410 Document preparation services
	Libraries	9231	Library and archive activities	Class 511111 Edition of newspapers not integrated with printing Class 511112 Edition of newspapers integrated with printing Class 511122 Edition of magazines and other periodicals integrated with printing Class 511131 Edition of books not integrated with printing Class 511132 Edition of books integrated with printing Class 511142 Edition of directories integrated with printing Class 511192 Edition of other materials integrated with printing Class 519110 News agencies Class 519121 Private libraries and files Class 541930 Translation and interpretation services Class 561410 Document preparation services

APPENDIX 6. Selection of NAICS Classes and Subdivisions

Industry	Subgroups	ISIC Rev.3.1.code	Description	NAICS: Code and description
Music, Theater, Opera	Composers, arrangers, choreographers, directors, performers and others	9214 9219 9249	Dramatic arts, music and other arts activities Other entertainment activities n.e.c. Other recreational activities	Class 334610 Production and reproduction of magnetic and optical media Class 433311 Wholesale of discs and cassettes Class 465211 Retail of discs and cassettes Class 512210 Record companies Class 512220 Production and distribution of discs and tapes Class 512230 Music publishers Class 512240 Sound recording studios Class 512290 Other sound recording industries Class 561590 Other reservation services Subdivision 71111 Theater companies Subdivision 71112 Dance companies Subdivision 71113 Singers Subdivision 71119 Other artistic show companies Subdivision 71131 Promoters with infrastructure for presentations Subdivision 71132 Promoters without infrastructure for presentation Subdivision 71141 Managers
	Printing and publication of music	2213	Music publishing	
	Production of recorded music	2230	Reproduction of recorded media	
	Recorded music wholesale and retail (sales and rental)	5233 7130 5139	Retail sale of household appliances, articles and equipment Renting of personal and household good n.e.c. Wholesale of other household goods	
	Artistic and literary creation and interpretation	9214	Dramatic arts, music and other arts activities	
	Staging and related agencies (reservations, tickets, etc.)	9214	Dramatic arts, music and other arts activities	
	Writers, directors, actors, etc.	9214	Dramatic arts, music and other arts activities	
Motion Picture and Video	Motion picture and video production and distribution	9211	Motion picture and video production and distribution	Class 512111 Motion picture and video production Class 512113 Videoclips, and other audiovisuals production Class 512120 Motion picture and video distribution Class 512130 Motion picture projection Class 512190 Postproduction services Class 519121 Private libraries and files Subdivision 53223 Rent of videocassettes and discs
	Motion picture exhibition	9212	Motion picture projection	
	Video rentals and sales, video on demand	7130 9211	Renting of personal and household goods n.e.c. Motion picture and video production and distribution	
	Allied services	2230	Reproduction of recorded media	
Radio and Television	National radio and television broadcasting companies	9213	Radio and television activities	Class 512112 Television show production Class 515110 Radio broadcasting, except through Internet Class 515120 Television broadcasting, except through Internet Class 515210 Cable and satellite channel programming production, except through Internet Class 517510 Paid television shows distribution, except through Internet Class 561490 Support services Class 519110 News agencies
	Other radio and television broadcasters	9213	Radio and television activities	
	Independent producers	7499	Other business activities n.e.c.	
	Cable TV (systems and channels)	6420	Telecommunications	
	Satellite television	6420	Telecommunications	
	Allied services	9213	Radio and television activities	

APPENDIX 6. Selection of NAICS Classes and Subdivisions

Industry	Subgroups	ISIC Rev.3.1.code	Description	NAICS: Code and description
Photography	Studios and commercial photography	7494	Photographic activities	Class 541920 Photographic services Subdivision 81291 Picture developing services Class 519121 Private libraries and files
	Photographic agencies and libraries	2222 7499 9231	Service activities related to printing. Other business activities n.e.c. Library and archive activities	
Software Databases	Programming, development and design, manufacturing	7221 7229	Software publishing. Other software consultancy and supply	Class 511210 Software publishing Class 518210 Information electronic processing and other services Class 541510 Computer consulting services Subdivision 71312 Video game companies Class 511191 Publishing of other materials not integrated with printing Class 511141 Directory publishing not integrated with printing, except through internet Class 516110 Creation and distribution of contents exclusively through Internet
	Wholesale and retail prepackaged software (business programs, video games, educational programs, etc.)	5151	Wholesale of computers, computer peripheral equipment and software	
	Database processing and publishing	7240 7230	Database activities and on-line distribution of electronic content. Data processing	

APPENDIX 6. Selection of NAICS Classes and Subdivisions

Industry	Subgroups	ISIC Rev.3.1.code	Description	NAICS: Code and description
Visual and Graphic Arts	Artists	9214	Activities by authors, composers, and other independent artists n.e.c.	Class 435312 Wholesale of artistic painting and design articles and accessories Class 466313 Retail of antiques and art pieces of art Class 541340 Drawing services Class 541430 Graphic design Class 541490 Fashion and other specialized designs Class 611611 Private art schools Subdivision 71151 Independent artists and technicians
	Art galleries, wholesale and retail	9214	Dramatic arts, music and other arts activities	
	Picture framing and other allied services	7494	Photographic activities	
	Graphic design	9214 7499	Dramatic arts, music and other arts activities Other business activities n.e.c.	
Advertising	Agencies, buying services	7430	Advertising	Class 339950 Advertisement manufacturing Class 437210 Wholesale through mass media Class 541810 Advertising agency Class 541830 Media shopping agencies Class 541840 Media representation agencies Class 541850 Advertisement agencies Class 541860 Advertising agencies who work by direct mail Class 541870 Advertisement material distribution Class 541890 Other advertising services
C.C.S.	Copyright collecting societies	9112	Activities of professional organizations	Subdivision 81314 Organizations who care about the control of recreational activities

The Economic Contribution of Copyright-Based Industries in Jamaica

Final Report

The Economic Contribution of Copyright-Based
Industries in Jamaica



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Acknowledgements

The methodology of this study benefited greatly from access to data provided by STATIN and the estimates could not have been produced without such access. Many participants from the private sector also kindly provided information about how the copyright-based industries work. Substantial data were also provided by the copyright collective management societies, especially JACAP, in order to facilitate estimating the value added of these institutions. The study benefited from discussions with many institutional stakeholders, such as the Jamaica Intellectual Property Office (JIPO), the Jamaica Guild of Artists, Jamaica Wood Products and Furniture Association (JaWFPA), the Planning Institute of Jamaica (PIOJ), STATIN, the Ministry of Finance and Planning, the Ministry of Tourism, Entertainment and Culture, Jamaica Trade and Invest, as well as a number of individuals who were interviewed in an effort to develop profiles of the various segments of the core copyright sector.

The preparation of the report was greatly facilitated by Lonnette Fisher-Lynch, who, as the national coordinator of the study at JIPO, contributed substantively to the information on copyright law in the report. The study also benefited enormously from frequent technical discussions about the methods of economic analysis and the substance of copyright law, competition policy and the underlying jurisprudence with Dr. Rosalea Hamilton, Chief Adviser to the Prime Minister. Lorna Reid and Carol Coy of the National Accounting Unit in STATIN clarified the nature and strength of the data, assisting with speedy access to it as well as with the development of the method of the study, urging appropriate caution with the estimates. Hugh Beckford (General Manager, JACAP) facilitated access to relevant data, Dr. Heather Ricketts (UWI) and Richard Murray (Ministry of Finance) helped identify the cases profiled and commented on sections of the report, as did Dr. Jonathan Greenland of the National Gallery of Jamaica. Finally, the visit to Jamaica by the World Intellectual Property Organization's (WIPO) Oversight Team of Dimiter Gantchev (Acting Director, Creative Industries Division), Donna Ghelfi (Program Officer, Creative Industries Division) and Stephen Siwek (WIPO International Consultant) represented a turning point in the preparation of the report, both in terms of the technical clarity brought to the process and the cooperation from a wide range of stakeholders in the public and private sectors. In particular, Stephen Siwek's comments on the various drafts of the study and his recommended solutions greatly helped me to sharpen measurement and interpretation of the contribution of key sub-sectors.

To all, very special thanks.

Vanus James

Executive Summary

The specific purpose of this study is to measure the contribution of the copyright-based industries to GDP, employment and trade. The general aim is to update the indicators and framework for policy design, implementation, monitoring, and evaluation that seek to give the copyright-based industries an optimal place in transforming the structure, growth performance, and the internal and external balances of the Jamaican economy. The measures provided are economic in focus but it should be noted that copyright output such as music and art have significant non-economic benefits and it is also worthwhile for stakeholders to consider this in designing future studies.

I.1. Definition of Copyright-Based Industries

The copyright-based industries are defined as those industries in which copyright plays an identifiable role in creating tradable private economic (property) rights and income from use of these economic rights (WIPO, 2003:18, 22). That is, they use the protection of original expression provided by copyright and related rights, and, in particular, their protection by actual enforcement or threat of it, as the basis for investment, employment, and, ultimately, generation of income from the sale of a product or service or the sale of the (economic) rights themselves. The definition takes account of the role of government as regulator.

According to WIPO (2003), these industries are appropriately classified for statistical measurement into four broad groups of copyright activities:

- 1. Core Copyright Industries**, which exist to create, produce, and/or distribute copyright materials. Creation and production include performance, broadcasting, communication, and exhibition (WIPO, 2003: 28), which themselves sub-categorize into the following products and services:
 - a. Press and Literature
 - b. Music, Theatrical Productions and Opera
 - c. Motion Picture, Video and Sound
 - d. Radio and Television
 - e. Photography, Visual and Graphic Arts, Related Professional and Technical Services
 - f. Software, Databases and New Media
 - g. Advertising Services
 - h. Copyright Collective Management Societies
- 2. Interdependent Copyright Industries**, which are engaged in the production, manufacture and sale of equipment that facilitate copyright activity (WIPO, 2003: 33). Such equipment includes TV sets, radios, DVD players, electronic game consoles, computers, musical instruments, photographic instruments, blank recording material, and paper.
- 3. Partial Copyright Industries**, whose main activities may not be copyright but include a significant component of products and services that are based on copyright as defined in (1). These include museums, jewelry, coins, architecture, engineering, surveying, interior design, and furniture design.
- 4. Non-Dedicated Support Industries**, which are the distribution industries that facilitate broadcasting, communication, and distribution or sales of copyright-based activities that are not classified as core copyright activities. These industries serve to measure spillover effects of the core,

interdependent and partial copyright industries. They deal in wholesale and retail, general transportation, and telephony and the Internet.

1.2. Method of the Study

By the above definition, the method of quantification is inherently sector-wide. It covers core and related activities in a way that exhibits the main externalities generated by the production of copyright output. To estimate the contribution to income and employment, the study uses data from the Jamaica 2001 Population Census and the 10 percent Census of Economic Activity (labor market) along with basic national accounting data on selected sectors provided by STATIN.

Two main imputation techniques are used. First, there are earnings multipliers computed as the reciprocal of the “wage share”, using the basic data that STATIN has provided on the structure of national income in selected sectors. The purpose of the multipliers is to replicate the structure of income in various copyright sub-sectors, based on the nearest identifiable classification code for which STATIN data are available. The availability of more details from STATIN would most likely improve these estimates. Second, copyright factors are estimated to identify the copyright component of each relevant class of activity under the JSIC codes. Since this is the first study of its kind in Jamaica, these copyright factors are based primarily on figures available from various data sources, especially the earnings data of Census 2001, the Survey of Living Conditions (SLC) and factors available from international best practice sector-wide studies of similar creative and copyright sectors conducted in Mexico and Hungary by WIPO (2003; 2006), UIS (2005) and Marquez-Mees, Funes and Yaber (2007). The Mexican indicators also benefited from the data published about the US economy (2006). The economies of Mexico and Hungary have been chosen because relevant studies are available and also because they, like Jamaica, have a significant pool of surplus (underemployed) labor and a tendency for members from this pool to pursue and develop commercial creative arts as a way to earn income. These studies provide the main guide to the copyright factors of the partial copyright activities. All factors for core copyright are set at one to indicate that 100 percent of these activities are assigned to copyright. Similar activities in interdependent copyright are also given a factor of one.

The main guide to the copyright factors for non-dedicated support for copyright comes from the SLC, which indicates that 0.6 percent of all consumption is recreational, the main driver of the copyright sector. This information is used to set a general factor of 0.005 for non-dedicated copyright and for several other sectors in partial copyright that have been judged to have only a minimal copyright component.

Employment is estimated either based on the data directly provided by stakeholder institutions or by dividing estimated earnings by the average earnings per employee in a sector. Perhaps the most important aspect of the employment data provided in this study is the assessment of whether the copyright sector also exhibits high levels of underemployment. This is determined by estimating the elasticity of earnings with respect to the supply of labor in the sector, with labor supply defined by hours worked per week and weeks worked. Estimates of the returns on investment in education in the copyright sector are provided in that same context. These estimates provide information on whether the general macroeconomic condition of underemployment and significant externalities affecting factor pricing in Jamaica is replicated in the copyright sector. The findings are that such conditions are replicated and that the marginal product of labor deviates from the wage rate. This justifies using the ratio of GDP to factor payments as the basis for estimating the relevant partial productivities that should guide policy formation. With regard to capital, the relevant capital productivity measure is the ratio of sector output to the claims for depreciation and operating surplus. The majority of the physical capital employed by the typical sector is imported, so the estimates are proxies for the productivity of imported capital inputs or the efficiency of the use of foreign

exchange. In the case of indirect taxes, it is the ratio of indirect taxes to GDP that provides the relevant indicator of the tax recovery rate yielded to support public policy.

I.3. Content of the Report

The report comprises eight sections. Section I introduces the report. Section II provides the background and context that identify the copyright sector and the macroeconomic context in which it operates. It is shown that the macro economy features high levels of underemployment in a context of growing demand and trade opportunity in the markets related to the copyright sectors. Section III presents a profile of the Jamaican core copyright sector, in the context of which other segments are measured. The profile focuses on the leading personnel and types of firms driving their creative activities, and it provides some evidence of the level of education and the share of self-employment in the sectors. Section IV summarizes the methods of implementation of the WIPO (2003) guidelines. A multiplier based on the earnings share is justified in light of the data available from STATIN and Census 2001, and the use of the copyright factors is explained, together with justifications for the guidelines adopted from international studies from Mexico (Marquez-Mees, Funes and Yaber, 2007) and Hungary (WIPO, 2006). The section also clarifies the projection of earnings data from Census 2001 to 2005 as well as the method of adjusting selected STATIN national accounting components to reflect underemployment in the labor market.

Adjustments are applied only in cases where STATIN indicates that estimates are weak in that respect and Census 2001 provides no better alternative. Section V reports the results of application of the method to estimation of the GDP by type of copyright sector, and Section VI does the same for estimates of employment. In this section, evidence is provided that the labor market in the copyright sector features substantial underemployment and significant externalities, and thus that the marginal product of labor diverges from the going wage rate. In Section VII, a very broad picture is provided of trade patterns in the copyright sector, based on data obtained from UIS (2005) and Nurse, (2007) as well as on data collected from selected stakeholders participating in the international trade in the sector. Section VIII summarizes the policy perspectives. These focus on the necessary domestic capital formation to eliminate underemployment, with attention to both fixed and working capital. The results of Section VI are used to justify computation of partial productivities, using the claims paid to factor inputs. The partial (average) productivities are used to compare gains from investment in various segments of the copyright sector and thus to summarize the resulting perspectives regarding priority allocation of investment support.

I.4. Limitations

The main limitation of the sector-wide measure provided in this study is the use of the Survey of Living Conditions and the best-practice data from cases such as Mexico and Hungary as the basis on which to estimate the copyright factors. Future studies should employ a well-designed survey and all the details of the income distribution available for all 4-digit sectors on which STATIN collects data. The second most important limitation is that modern information technology makes the measure of trade in copyrighted products sketchy and inadequate and the measure of domestic sale of copyright output quite weak in many cases, such as music and publication of books and papers. In addition, the copyright-based industries involve significant levels of piracy and other negatives that are addressed by diverting resources to policing and offsetting their impact. These have not been netted out in our calculations. In the context of Jamaica, there is substantial underreporting of incomes because of the existence of the so-called informal economy and its hidden transactions. In reporting to STATIN, operators in the copyright sector might conceal transactions for several reasons: avoidance of taxes, evasion of applicable laws and regulations, concealment of illegal activity, and the like. The effect is usually underestimation of the contribution to GDP and employment, and uncertainty regarding the contribution to indirect taxes. Nonetheless, the estimates are sufficiently strong to form a starting point for policy formulation and to provide guidelines on how surveys might be designed for more accurate estimates of the copyright factors and the distribution of income.

1.5. Findings

Our estimates reveal that in 2005 Jamaica's copyright sector contributed about J\$29 billion in producers' values at constant (1996) prices to the Jamaican economy, in the neighborhood of US\$464.7 million or 4.8 percent of GDP. Approximately 35.6 percent of the total contribution was from the core copyright sector, 15.5 percent from the interdependent copyright sector, 9.8 percent from the partial copyright sector, and 39 percent from the non-dedicated support sector. To produce this output, the copyright sectors accounted for 3.03 percent of the employees in the economy or 32,032 persons, with 59.3 percent of these employed in core copyright activity, 10.4 percent in interdependent copyright, 7.8 percent in partial copyright and 22.5 percent in non-dedicated support. Education and skills are the principal forms of capital employed in the copyright sector, and this asset is distributed unevenly among the sub-sectors. Estimates indicate that the earning productivity relating to education in the copyright sector is well above average for the economy. The best-known international sectors are also the least well-endowed with formal education but they are perhaps the best endowed with the domestic tacit knowledge and skills that foster creation of new knowledge and applicable skills as well as international market penetration. This suggests a case for mainstreaming of the copyright sector in the education system, with adequate attention to the traditionally neglected segments of music, dance and theater. The sector is actively involved in international trade and payments, but strong estimates are not available. At best, it can be claimed that the sector runs a general trade deficit, with the exception of press and literature, which appears to run an overall trade surplus. It is likely that music also runs a positive payments balance.

The general Becker-Chiswick-Mincer earnings function indicates that, without distinguishing the levels of university degrees and such relevant issues, the core copyright sectors yield a higher average rate of return on investment in education than do other sectors of the economy. There is an added premium for job-specific training but it is lower in the copyright sector than in the rest of the economy. Together, the data show that it is comparatively very beneficial for the economy to re-allocate resources to invest in education for the copyright sector and to sustain the allocations for job-specific training. Underemployment conditions prevail in the sector and imply a shortage of capital and a sparse technology set in the copyright sector, which can only be remedied by the production and accumulation of domestic capital with both fixed and working capital. Further, there are significant positive pecuniary and non-pecuniary externalities and, therefore, a related divergence of the marginal product of labor from the going wage rate. This finding necessitates and validates use of the average return to the claims of factors when computing average factor productivities. It is worth observing that in the case of labor productivity; this is the same as the multipliers referred to above.

1.6. Policy Perspectives for the Copyright Sector

At the same time, the copyright sectors are high-productivity sectors, especially as defined in terms of the returns on investment in capital formation, which is also a measure of the productivity of imports (or the efficiency of use of foreign exchange) since most real capital used in Jamaica is imported. Indeed, these sectors tend to outperform most other sectors on the basis of this indicator, which is the one that is relevant in a situation of a substantial and binding imbalance on the external account. The data show that each dollar of foreign exchange invested in the leading elements of the core copyright sector contributes about J\$6.18 of value added to Jamaica, mainly in the form of wages and indirect taxes. These elements are: authors, music composers, and independent artistes in allied activities (not music); authors, music composers, and independent artistes in the core music industry; dance studios; and theater and related entertainment services. Each dollar invested yields as much as J\$6.57 in certain partial copyright sectors, such as manufacture of other leather products, luggage and handbags, footwear made of rubber, plastic and other materials and boots and shoes from leather fabrics and other materials except wood, rubber and plastic. On the other hand, the same dollar of foreign exchange in communications (say, cable television)

yields only J\$1.49. This simple arithmetic is compelling in terms of policy direction: re-prioritizing support for the leading partial and core copyright sectors.

Underemployment conditions and externalities in the copyright sector imply that there exists a supply of labor and tacit knowledge that is being employed to exploit the domestic comparative advantage and create capital on a viable, creative and cost-effective basis. Both fixed and working capital are being accumulated, and policy should focus on supporting this process since, on this evidence, the copyright sector, broadly defined, can become one of the main sectors leading the Jamaican economy to sustainable reintegration into the rapidly changing world economy. Notwithstanding, the paradox of entrepreneurship persists. Entrepreneurs with substantial capital are usually not drawn to invest in the key creative activities of the copyright sector, such as music; those entrepreneurs who are drawn typically have only small amounts of capital and policies should focus on addressing this paradox.

1.6.1. Policies to Address the Paradox of Entrepreneurship

To address the paradox of investment identified in the study and to increase the flow of entrepreneurs into the sector, it is necessary to employ policies that build on its high productivity and focus on making the incentives to invest in domestic capital formation in the sector more attractive than in other sectors of the economy. The boost given to import productivity and profitability would be the main attraction to investors. The relevant policies include the following:

- Investment in acquiring and producing applicable knowledge, especially tacit knowledge, and in the problem-solving skills to use and codify it as necessary for improved business success. This requires mainstreaming of copyright sector education through continuous training and tracking from primary school through to post-graduate education and research.
- Corresponding investment in physical capital assets in the copyright sector to complement the human capital accumulation identified in (1). These assets include both public infrastructure and private real capital formation.
- Strengthening of the copyright regime and mainstreaming of education and training on the benefits of copyright and design of competition policy as a mechanism of support for copyright policy.
- Improved access to credit for capital formation, fixed and working, complete with a relevant system of enterprise-wide risk management to strengthen collateralization and securitization of credit to the sector.
- Technical, incubation and educational support for investment in domestic capital and creativity and to optimize competence in the acquisition and use of modern information processing technologies that facilitate creativity.
- Accelerated tax benefits that boost cash flows, such as making Jamaica a personal income tax haven for elite copyright personalities as defined by the ability to achieve specific earnings thresholds.
- Enhanced international cooperation in the sector, with the assistance of Jamaica Trade and Invest.
- Reform of the system of information collection, sharing and communication and definition of roles for the sector. Here, reforms should promote good governance mechanisms to facilitate sound design of relevant supporting public policy and informed leadership by the state. Some of these reforms should include a radical upgrade of the information collection, sharing and communication devices used to monitor and lead the development path of the industry, as well as the arrangements for sector-wide consultation and joint decision-making between government departments, the private sectors and communities. For this purpose.
- STATIN should be strengthened to better understand and use all relevant approaches, including a possible satellite account for the sector, participatory and qualitative approaches to data collection that bring all stakeholders into the data supply loop, and thereby improve systems for consistent sector

reporting and monitoring.

- A sector-wide planning process for the sector should be established, featuring (i) well-defined stakeholder participation and cost and financed sector plans that are fully integrated into the Medium-Term Policy Framework and the annual budget; and (ii) arrangements for an annual joint sector review and report.

1. Introduction

The copyright-based industries have emerged as an important part of Jamaica's economy and society, influencing and transforming it as well as traditional sociology and policy. Copyright output, which has both a marketable and non-marketable "tacit" form, is becoming increasingly important both as an intangible capital resource (input) that is not consumed entirely during its use and as a final consumer good or service.¹ Much of the development to date has been based mainly on the efforts of private entrepreneurs – many in the category of micro, small and medium-sized enterprises. In some segments, such as advertising services, free-to-air on broadcast TV and radio as well as on cable TV, significantly successful large-scale local and international investments, some from government, have been taking place in the last two and a half decades since the start of the structural adjustment and trade liberalization process. Even before that, in music in the late 1960s and early 1970s, international investors began to cooperate with local investors to develop domestic capital and tacit knowledge, transform domestic comparative advantage, and market the product locally and globally on terms that pushed Bob Marley and the Wailers, in particular, and Jamaican reggae and dancehall, in general, to the forefront of global music. The successes also reflect trends in the growth of local and international demand for copyright input and output and for some of the benefits of rapidly-changing local and global technologies. The government is now re-examining the advisability and effectiveness of adjusting its policy attention and supporting expenditures to optimize benefits from the industry with respect to contributions to GDP and employment as well as to trade and taxes, and, in that context, to update the modalities of financing and technical support along with the framework of public leadership and management of the sector.

1.1. Purpose of the Study

The immediate purpose of this report is to quantify the contribution of the copyright-based industries to GDP, employment, and foreign earnings in Jamaica. The underlying goal is to update the indicators and hence the framework for policy design, implementation, monitoring and evaluation, with a view to ensuring that the copyright-based industries attain their optimal place in transforming the structure and growth performance of the Jamaican economy. As is common in international practice, the main indicators are the partial factor productivities. In the context of Jamaica, the most important of these is the average productivity of the claims paid for capital, which also provides a proxy for the productivity of imports.² An important element of this report, therefore, is the policy framework extracted from the analysis and indicators that rank industries by these productivity indicators.

The study focuses mainly on the economic aspects of copyright. Nonetheless, it is to be recognized that copyright output such as music and art does have significant non-economic benefits related, *inter alia*, to social mobility and transformation, the national spirit, health, and management of crime. It is also worthwhile for policy-makers to provide for consideration of such matters in future studies.

1.2. Definition of Copyright

Copyright (or authors' right)³ is a form of exclusive right given by society to the creator of original literary, artistic or musical works to do, authorize, or prohibit certain acts in relation to such works. It especially

¹ Marketable flows reflect the demand for copyrighted goods and services (software, CDs, data, etc.) from the tourism sector, general government, education, sports and other industries. Non-marketable flows are the forms of tacit knowledge occurring in society, often but not necessarily only within firms, which are protected largely by lack of access and an effective exclusion mechanism even in the absence of a relevant law and even when the potential user is willing to pay.

² Note that a dynamic form of this measure also indicates the rate of saving of foreign exchange.

³ The term "authors' right" is used in the civil law system, and "copyright" is used in the common law system (Sterling, 1998:xiii). The authors' right system has its roots in the French laws of 1791 and 1793, while the copyright system is rooted in the UK Act of 1710, commonly known as the Statute of Anne (Sterling, 1998:15-16). It is sometimes necessary to use both in order to reflect the different approaches in the two systems. The most important distinction relates to the emphasis on the protection of the work in the copyright system and on the author in the authors' right system.

prohibits the copying or use for public purposes of defined types of original cultural, informational and entertainment productions (Cornish, 1996:7; COTT, 1999).⁴ It denotes a “bundle” of separate rights, including reproduction, publication, public performance, broadcasting, cable transmission to subscribers, and adaptation (such as dramatized versions of fictional works or arrangements of musical compositions) (Guidberg, 1994:2; Sterling, 1999: 23).

In contrast with patents which aim to protect ideas that satisfy the criteria of novelty, non-obviousness and usefulness, copyright protection is extended to expression and not to ideas, procedures and methods of operation or mathematical concepts (Rey and Winter, 1998: 159; Cornish, 1996: 8; TRIPS, Article 9).⁵

Adequate understanding of copyright requires an understanding of related rights (Sterling, 1999: 63-64). These are the rights of performers, producers, broadcasters and others who bring authors’ works before the public (Sterling, 1998: ix). These rights have been internationally protected since the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (known as the Rome Convention) of 1961. In some laws, e.g., those of the UK, the term “copyright” is used to cover both the rights of authors and some or all of the related rights. Copyrights are administered by collection societies with deterrent support from law enforcement agencies. The dominant collection agencies worldwide are those based in the largest markets. In the US, there are the American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music Inc. (BMI). In the UK, there is the Performing Rights Society (PRS), and in Europe as a whole there is the Society of European Stage Authors and Composers (SESAC). Internationally, collection societies collaborate with each other directly and through membership in the *Confédération Internationale des Sociétés d'Auteurs et Compositeurs* (CISAC) and, increasingly, through projects initiated in collaboration with WIPO (Andersen, 1999: 24-27). Over time, Jamaica’s collective management societies have been increasing their collaboration and cooperation with these international collective management agencies.

Increasing recognition of the importance of IP in world production and exchange, especially in the scale of the losses to piracy, has resulted in significant developments in the international regimes for regulating the use of IP. In particular, it led to the conclusion, within the framework of the WTO, of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement in 1995 and, within WIPO, of the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty, both in 1996.

⁴The term “property rights” refers to the legal protection for one’s expenditure of labor, time and money (past effort). For economists/social scientists, property rights also include the informal constraints, that is, the sanctions, customs and codes of conduct, which have been devised to constrain the use of commodities and things (tangible or intangible), and thereby facilitate order and reduce uncertainty in production and exchange (Neuberger, 1994:23). Property rights are the basis for defining ownership, and hence for determining the assignment of costs of production and exchange. Intellectual Property (IP) describes research results and other original ideas, whether or not they fall within the ambit of what the law protects (Cornish, 1996:3). Although IP rights are essentially negative (i.e. rights to stop others doing certain things), some aspects of IP confer positive entitlements (e.g. the right to be granted a patent or register a trade mark upon fulfilling the requisite conditions) (Braunstein, 1989:12).

⁵It is important to note, however, that this distinction is not strictly true. In *Ibcos Computers Limited and Another v. Barclays Mercantile Highland Finance Limited* [1994] FSR 274 at 291, Jacob J. noted:

The true position is that where an “idea” is sufficiently general, then even if an original work embodies it, the mere taking of that idea will not infringe. But if the “idea” is detailed, then there may be infringement. It is a question of degree. The same applies whether the work is functional or not, and whether visual or literary. In this latter field, the taking of a plot (i.e., the “idea”) of a novel or play can certainly infringe – if that plot is a substantial part of the literary work.

The case of *Anacon Corporation v. Environmental Research Technology Ch.D 21 April 1994* (unreported) seems to blur this distinction even further by equating the information derived from the original copyright work with the work itself (Hall, 1994:191-192). Note, however, that non-disclosure and non-competition agreements are probably the single best way to protect the ownership of ideas and information that are not subject to the laws of copyright or trademark (Kirsch, 1995:10). The law of “idea misappropriation” offers the aggrieved creator a legal mechanism for the protection of “mere ideas.” However, the remedy is the “fair market value” of the idea, and this is typically less attractive than a claim for copyright infringement which, unlike idea misappropriation cases, will force the infringer to pay attorney’s fees..

The international copyright agreements set specific standards of protection of copyright and related rights that must be observed and applied by all WTO Member States (Sterling, 1999: 6). Widespread compliance by the year 2006, as stipulated by the treaties, has generally meant that many countries have a comprehensive IP regime; complete with effective deterrence that meets common international standards.

1.3. Definition of Copyright-Based Industries

The copyright and related rights industries are defined as those industries in which “copyright plays an identifiable role” in creating tradable private economic (property) rights and income from use of these economic rights (WIPO, 2003: 18, 22). Copyright is one of seven broad forms of legal protection of intellectual property, the others being patent, trademark and trade secret (undisclosed information), geographical indications, industrial designs, and layout-designs of integrated circuits. This study deals only with industries protected by copyright, which focuses on specific expression of ideas or information (but not the actual idea or information itself or any content of specific concepts, facts, methods, techniques and styles embodied in the specific expression) related to literary and artistic creations and computer software. Copyright-based industries use the protection of original expression provided by copyright and related rights and, in particular, their protection by actual enforcement or threat of it, as the basis for investment, employment, and, ultimately, generation of income from sale of a product or service, or sale of the economic rights themselves. The definition takes account of the role of government as regulator.

According to WIPO (2003), these industries are appropriately classified for statistical measurement into four broad groups of copyright activities:

1. Core Copyright Industries, which exist to create, produce, and/or distribute copyright materials. Creation and production include performance, broadcasting, communication and exhibition (p. 28). These include:

- a. Press and Literature
- b. Music, Theatrical Productions and Opera
- c. Motion Picture, Video and Sound
- d. Radio and Television
- e. Photography, Visual and Graphic Arts, Related Professional and Technical Services
- f. Software, Databases and New Media
- g. Advertising Services
- h. Copyright Collective Management Societies

2. Interdependent Copyright Industries, which are engaged in the production, manufacture and sale of equipment that facilitate copyright activity (WIPO, 2003: 33). Such equipment includes TV sets, radios, DVD players, electronic game consoles, computers, musical instruments, photographic instruments, blank recording material, and paper.

3. Partial Copyright Industries, whose main activities may not be copyright but include a significant component of products and services that are based on copyright as defined in (1). These include museums, jewelry, coins, architecture, engineering, surveying, interior design, and furniture design.

4. Non-Dedicated Support Industries, which are the distribution industries that facilitate broadcasting, communication, and distribution or sales of copyright-based activities that are not classified as core copyright activities. These industries serve to measure spillover effects of the core, interdependent and partial copyright industries but are in themselves not normally thought of as

copyright activities. The industries include general wholesale and retail, general transportation, and telephony and the Internet.

1.4. Method of the Study

The above definition reveals that the underlying method of the study measures the copyright sector on a sector-wide basis, covering core activities and key linkages in a way that demonstrates the main externalities generated by the production of copyrighted output. The study employs data from the Jamaica 2001 Population Census and the 10 percent Census of Economic Activity (labor market) along with basic national accounting data on selected sectors provided by STATIN as the basis for the estimates of income and employment. No reliable data are available to prepare direct estimates of the contribution of the copyright sector to trade and payments, even by using residual calculations from an expenditure viewpoint.

Wage data from Census 2001 are used to complement the data provided by STATIN for cases in which data are not available. Data from the Large Establishment Survey are used to forecast the Census data up to 2005, on the assumption that fundamental structural adjustments are reflected in average wage patterns. Copyright factors are informed by the basic WIPO (2003) method, by data provided in the relevant studies on Mexico and Hungary, by data available from the 2005 Household Expenditure Survey, and by data from the Survey of Living Conditions. It is also assumed that the internal distribution of income in the data provided by STATIN is a reasonable basis for approximating the structure of income in the core and related copyright sectors. This structure is replicated by simply estimating a sector multiplier from the basic STATIN data.

Estimates of employment are computed as the ratio of sector wages and the average wage provided by the STATIN Survey of Large Establishments. Estimates of the returns on investment in education in the copyright sector are provided in the context of a wider estimate of the wage curve of the sector that sheds light on the elasticity of labor supply and provides information on whether the general macroeconomic conditions of underemployment and significant externalities affecting factor pricing in Jamaica are replicated in the copyright sector. The findings are that such conditions are replicated and that the marginal product of labor deviates from the wage rate. This justifies using the ratio of GDP to factor payments as the basis for estimating the relevant partial productivities that should guide policy formation.

With regard to capital, the relevant capital productivity measure is the ratio of sector output to the claims for depreciation and operating surplus. The majority of the physical capital employed by the typical sector is imported, so the estimates are proxies for the productivity of imported capital inputs or the efficiency of use of foreign exchange (James, 2006a; 2006b). In the case of indirect taxes, it is their ratio to GDP that provides the relevant indicator of the tax recovery rate yielded to support public policy.

1.5. Structure of the Report

The report comprises eight sections, of which this Introduction forms Section I. Section II provides background and context that guide choice of the method of estimation. It identifies the copyright sector and the macroeconomic context in which the sector operates. It shows that the macro economy features substantial levels of domestic underemployment in a context of growing demand and trade opportunity in the general international markets and in the markets directly related to the copyright sectors. Section III sets out a profile of the Jamaican core copyright sector, in the context of which other segments are measured to capture clear linkages with copyright activity – the interdependent, the partial, and the non-dedicated support. In Section IV, the methods of implementation of the WIPO (2003) guidelines for estimating copyright GDP, employment and trade are set out. The method is guided by both the labor and skill

intensity of the industries as well as by the extent of underemployment evidence in data from the census of 2001. A multiplier based on the earnings share is justified in light of the data available from STATIN and Census 2001. The use of copyright factors is explained and the assumptions made regarding their use are stated explicitly according to the sub-sectors concerned. This includes reliance on the practices in Mexico (Marquez-Mees, Funes and Yaber, 2007) and in Hungary as reported in the national studies of the copyright sector made available in WIPO (2006).

The section also clarifies the method of projection of earnings data from Census 2001-2005, as well as the method of adjusting selected STATIN national accounting components to reflect underemployment in the labor market. This adjustment is applied only in cases where STATIN indicates that its estimates are weak in that respect and Census 2001 provides no better alternative. Most importantly, the section justifies and documents estimation of worker earnings used to compute the GDP and employment in the copyright sub-sectors, as well as to estimate the associated claims structure of output in terms of taxes, depreciation, and operating surplus. Section V reports the results of application of the method to the estimation of GDP by type of copyright sector, and Section VI does the same for estimates of employment. In this section, evidence is provided that the labor market in the copyright sector features substantial underemployment and significant externalities, which point to divergence between the marginal product of labor and the wage rate and, more generally, to a breakdown of the law of demand in the economy. Section VII summarizes the policy perspectives. These focus on the necessary domestic capital formation to eliminate underemployment, with attention to both fixed and working capital. The results of Section VI are used to justify computation of partial productivities, using the claims paid to factor inputs rather than the quantity of the factors measured independently of their broad factor prices.

The partial (average) productivities computed on that basis are used to compare gains from investment in various segments of the copyright sector and thus to summarize the resulting policy perspectives regarding priority allocation of investment support. Given the high level of dependence on imported capital inputs, the indicator of labor productivity is also a good indicator of the rate at which claims flow to the foreign interests per dollar of outlay. The indicator of capital productivity is correspondingly a good indicator of the rate at which earnings flow to domestic skills and labor.

1.6. Limitations

The main limitation of a sector-wide measure such as this is the use of the Survey of Living Conditions and the best-practice data from Mexico and Hungary as the basis for the estimates of the copyright factors. A preferred basis would be survey data, especially as such data would allow estimation of input-output technical coefficients. A second important limitation is that the estimates for most sub-sectors in the set measured rely on the strong assumption that the distribution of income and intermediate input used variously reflect that for which STATIN provided data. A preferred basis would be the detailed 4-digit or 5-digit specifics on income distribution and intermediate input use for each sub-sector. The second most important limitation is that the measure of trade in copyrighted products is sketchy and inadequate. Apart from the weak domestic datasets, this is an era of dynamic information technology and of its application to copyright and related rights in which it is difficult to scrutinize and record cross-border computer and related flows of software, data, music, and the creation and settlement of financial claims. In fact, this problem also makes monitoring of the domestic sale of copyright output difficult and even weak in some cases such as music and book publishing. Cross-border piracy compounds the picture even more and makes it nearly futile to monitor and measure the cross-border flow of intellectual property in software programming, music, film and the like. For example, one might claim that Jamaica has a huge deficit in the

trade in software and imports most of its software needs, or that it is a net exporter of music, but one does not know whether either claim is true based on empirical evidence, partly because technology-driven deficiencies in the protection of intellectual property as information content lead to loss of export sales by one trading partner or the other.⁶

Further, some significant changes in the quality of an industry occur as the industry develops and becomes globally competitive. Such changes lower the quality of projections from 2001 to 2005 based on data on wages from the Large Establishment Survey. Normally, these wage adjustments can be refined with detailed sector data and econometric measures of hedonic prices but the data are not available for such purposes. In addition, the copyright-based industries involve significant piracy and other negatives that are addressed by diverting resources to policing and offsetting their impact. These have not been netted out in our calculations. In the context of Jamaica, it is reported that there is substantial underreporting of incomes because of the existence of the so-called informal economy and its hidden transactions. In reporting to STATIN, operators in the copyright sector might conceal transactions for several reasons: avoidance of taxes, evasion of applicable laws and regulations, concealment of illegal activity, and the like. The effect is usually an underestimation of the contribution to GDP and employment and uncertainty regarding the contribution to indirect taxes.

Estimates on trade and payments were not provided because of lack of reliable data. For these reasons, the estimates ought to be treated as initial conditions for understanding output, employment, and taxes in the copyright sector. Nonetheless, the estimates are sufficiently strong to form a starting point for policy formulation and to provide guidelines on how surveys might be designed for more accurate estimates of the copyright factors and the distribution of income.

⁶ Such content is typically invisible and only appears in physical form on a computer screen or in a cell-phone. Jussawalla (1992) made similar observations more than two decades ago. They still apply to the trade in copyright products today, notwithstanding substantial updating of harmonized copyright laws in the international community.

2. Background and Context of Analysis

The main point of this background is to summarize development possibilities in the copyright sector by demonstrating that in Jamaica it operates in a wider macroeconomic framework characterized by high productivity growth potential on the one hand and, on the other, by the sustained breakdown of the law of demand – the process of resource mobility that facilitates efficient resource allocation – in the labor market. The latter breakdown also implies breakdown in all other factor markets and associated shortage of capital and import capacity that has led to the existence of sparse technology sets in the Jamaican economy. The breakdown of the law of demand has the effect of freeing up labor and domestic tacit knowledge with applicable skills, as well as domestic entrepreneurial skills, financial liquidity, and credit-creating capacity.

In that type of economic context, there are two central principles of economic analysis – one concerning measurement of factor productivity for the purpose of prioritizing interventions, and the other concerning the structure of investment necessary to foster resource mobility and restoration of the rule of the law of demand. First, regarding the measurement of factor productivity, the marginal product of a broadly-defined factor tends to deviate from the general rate of return, making it impractical and analytically unjustified to separate values and real quantities. Thus, the estimate of the partial factor productivity must be computed as the ratio of output to the flow of payments of claims to the relevant factor. In a context of abundant tacit knowledge, a shortage of imported capital and a tendency for most physical capital of the private sector to be imported, the estimate of the productivity of all claims on capital is also an estimate of import productivity and hence of the potential for raising the rate of long-term saving of foreign exchange (James, 2006b). Second, the central macroeconomic principle governing the copyright sector is that investment in capacity building alongside capacity utilization, especially human capital to produce and use tacit knowledge, is the central means of fostering resource mobility and expanding the output, profits, savings and employment that eliminate underemployment and reset relative prices to validate such investments. Thus, apart from necessary tax and tariff breaks to lure investors into the copyright sector, the central instruments necessary for a rational public policy are expansion of credit to provide both working and long-term financial capital along with suitable risk management devices and training to facilitate mobility and develop and codify idle tacit knowledge.

2.1. Globalization

The context of analysis is the increasingly global capitalist market system, characterized by both the increasing interdependence of nations and increasing pressure to rely more on market competition through capital mobility as the primary mechanism of economic coordination, but with a growing role for major institutions of international and regional collaboration (Ryan, 1998).⁷

In the globalization process, every nation must improve its capacity to compete for the opportunity to grow and consume, or face persistent unemployment, underemployment, and poverty. Only by this means can its people make the necessary move from low to high earning activities, expanding opportunity in the process (Lewis, 1954). But improved capacity to compete necessitates growth of productivity in all activities driven by the process of human, institutional and physical capital formation.

It is ultimately this development that makes investment in copyright-based industries vital to progress in Jamaica, since copyright provides a specific way to claim income created by investment in novel knowledge and other new forms of domestic capital. In summary, the activities in which a country is most creative and, hence, most capable of developing new domestic capital and the skills to use it, are ultimately those that

⁷ In the Caribbean region, there is also a deepening and widening of arrangements for collaboration among its countries, including the Caribbean Common Market and the Association of Caribbean States.

offer the best opportunities for exploiting available externalities and developing its distinct comparative advantage (Lewis, 1955; Forstner and Ballance, 1990). As a general rule, these are also the activities that develop and use local knowledge, culture and skill most intensively, typically in combination with relevant international knowledge and skill transfers (Topel, 1990).⁸ The role of domestic and international knowledge and applicable skills also implies a significant role for information technology, including the tendency of the latter to facilitate domestic and international piracy because of easy, anonymous, and instantaneous acquisition of information and related intangibles.

All of this has generally been recognized to be true of one of the main engines of Caribbean growth, i.e., growth in the so-called developed countries, and is evident in their growing dependence on the production, use and distribution of IP to displace scarce labor (Freeman and Soete, 1997: 339; Roberts, 2000; Nonaka and Takeuchi, 1995; Bell and Pavitt, 1995; Pavitt, 1996; Ryan, 1998; Thurow, 1996; Forstner and Balance, 1990).⁹ Specifically, global demand engines exist to absorb the relevant output of the copyright sector; the problem of development in the sector is not one of effective demand. The global strengthening of copyright protection and the related acceleration of commercial development of the copyright-based industries provide sufficient demand growth. It is therefore quite beneficial that the GDP data produced by STATIN mainly measures the size and structure of income and intermediate inputs, which allows policy to focus, not on effective demand problems *per se*, but rather on the necessary adjustments of the factor markets, wages, prices and rates of return as well as intermediate inputs.

The importance of the copyright sector in scarce labor conditions could be gauged from the fact that copyright-based industries accounted for between 3 and 5 percent of European Community (EU) GDP in 1993. Where the US is concerned, the core copyright industries accounted for 5.72 percent of the GDP (more than US\$535 billion) and 4.8 percent of total employment. A selected core of copyright activities was found to yield over US\$53.25 billion of foreign sales to the US in 1995 (Sterling, 1999: 27). Studies undertaken under the auspices of WIPO now indicate that in the 24 years between 1977 and 2001, in the US, the core copyright industries¹⁰ grew at 7 percent, more than twice as fast as the rest of the economy (3 percent). In Australia during 1996/97 to 1999/2000, copyright-based industries grew at 5.7 percent while the economy as a whole grew at 4.85 percent. In the Netherlands between 1994 and 1998, the pattern was 5.6 percent versus 3.2 percent for the economy as a whole. And in Finland from 1988 to 1997, the growth advantage of core copyright industries was 8.3 percent as compared to 4.05 percent for the economy as a whole (WIPO 2003: 37).

Of special importance to Jamaica in this context of growing dependence on IP is the relatively rapid growth of the international audiovisual sub-sector generally and the music industry in particular. Led by continuous change in the technologies of production, marketing, and information technology (especially the latter), the music industry grew at a rate of about 5 percent per year between 1991 and 1996 (UNCTAD, 1999: 48; Henry and Nurse, 1996:5, 6). In 1997, this translated into nearly US\$38.1 billion in legitimate sales of sound recordings, mainly comprising LPs and CDs (Sterling, 1999: 27; MBI, 1998). In 2000, sound recordings were estimated at US\$39.1 billion globally.¹¹ However, by 2005, a clear division emerged between recorded

⁸ This position is implied by the consensus referred to by Kozul-Wright and Stanbury (1998:1) that "the ability of a country to sustain rapid economic growth over the long run is highly dependent on the effectiveness with which its institutions ... and policies support the technological progress and innovativeness of its enterprises. It is the fundamental principle explicitly guiding the Tobago Development Plan" (1998).

⁹ Recognition of this fact, at least by some countries, has led to a growing preoccupation in international negotiations with the design of international IP regimes and the related design of consistent domestic policy on IP (Ryan, 1998).

¹⁰ These are industries in which all activity is copyright-based.

¹¹ IFPI (2000), *The Recording Industry in Numbers, 2000*, London.

music, which accounted for US\$33 billion globally, and a much broader music sector from subscription radio to ring tones worth more than US\$100 billion globally – well over three times the market for recorded music. Partly in response to piracy problems, the live performances segment of the industry has also grown dramatically to account for about US\$14 billion in 2005¹². In the process from music production and sound recordings to distribution, the dominant countries remained the US and Japan, and the dominant participants are the five or six major international corporations with headquarters in these two countries (Henry and Nurse, 1996: 6,7; Andersen, *et al.*, 1999: 11). In the resulting world trade, countries usually labeled "developing" by the United Nations have won a small but increasing share, with their share in exports growing from 8.3 percent in 1988 to 13.9 percent in 1997, and their share of imports growing from 3.1 percent in 1988 to 5.5 percent in 1997 (Andersen, James, Kozul-Wright and Kozul-Wright, 1999). More interestingly, Brazil, the largest market in Latin America and one of the important new domestic capital-developing economies, has been increasing its relative share of the industry, experiencing growth of value of 7.1 percent and growth in volume of 18.7 percent in 2001/2002.¹³ The new domestic capital-developing economies have also achieved an overall positive trade balance in music. This gain has been achieved mainly through their creativity in lyrics and performance, itself fostered by the extensive cultural networking of the individuals, institutions, etc. involved in such activities.

The most significant technological changes were (i) the advent of technologies that have facilitated international trade in IP, such as satellite communications, and (ii) the advent of the Internet and the growing options it presents for interactive use or copy. The growing dependence of the world economy on IP was also accompanied by a rapid increase in piracy world-wide. The unauthorized production of copies of music, film, recordings, etc. was reported to have exceeded US\$5 billion in 1996 (Sterling, 1999:27).

2.2. Copyright in Jamaica

Jamaica's Copyright Regime

Jamaica's Copyright Act of 1993 protects the exclusive rights of owners of copyright material (reproduction, distribution, adaptation, public performance, and broadcasting). The Act provides general exceptions to infringement of copyright (fair dealing for the purposes of research, private study, reporting, and criticism). In addition to fair dealing exceptions, educational institutions are granted special and specific exemptions for the use of copyright material.

Following is the regime of applicable laws and regulations along with related international treaties:

1. Copyright Legislation and Regulations in Jamaica
 - (i) The Copyright Act, 1993
 - (ii) The Copyright (Amendment) Act, 1999
 - (iii) The Copyright (Customs) Regulations
 - (iv) The Copyright (Librarians and Archivists) (Copying of Copyright Materials) Regulations
 - (v) The Copyright (Recording for Archives) (Designated Bodies) Order
 - (vi) The Copyright (Educational Establishments) Order
 - (vii) The Copyright (Specified Countries) Order
 - (viii) The Copyright (Designation of National Cultural Events) Order.

¹² See IFPI News, 22 June 2006, *Recorded Music – Driver of a US\$100 billion Economic Sector*, <http://www.ifpi.org/site-content/press/20060622.html>.

¹³ IFPI (2002), *The Recording Industry in Numbers*, 2002. London.

2. Applicable International Treaties

- (i) The Berne Convention for the Protection of Literary and Artistic Works, 1886
- (ii) The International Convention for the Protection of Performers and Producers of Phonograms and Broadcasting Organizations (The Rome Convention), 1961
- (iii) The Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms, 1971
- (iv) The WIPO Copyright Treaty, 1996
- (v) The WIPO Performances and Phonograms Treaty, 1996.

Under this copyright regime, the rights of the authors of a work in any of the WIPO (2003) classifications in Table 1 would be fully protected.

Table 1: Copyright Protection for WIPO (2003) Classifications under Jamaican Copyright Laws		
JSIC Code	Copyright Classification	Copyright Protection Status
	Core	
	a. Press and Literature	
24212	Publishing of newspapers	Copyright Protected
24214	Publishing of magazines and books	Copyright Protected
24220	Printing not connected to publishing	Copyright Protected
83252	Advertising materials such as billboards	Copyright Protected
33731	b. Music, Theatrical Productions and Opera	
3373	Manufacture of audio and video records and tapes/recorded music using Census 2001 adjusted at rate of wage inflation	Copyright Protected
9415	Authors, music composers, independent artistes	Copyright Protected
9415	Music component of authors, music composers and independent artistes	Copyright Protected
9498	Dance studios	Expression Copyright Protected
9414	Theater and related entertainment services	
94110 & 94120	c. Motion Picture and Video Production, Distribution and Projection	
94110 & 94120	Motion picture production	Copyright Protected
94110 & 94120	Motion picture and video distribution	Copyright Protected
	d. Radio and Television Broadcasting	
94130	General (national and other) radio and TV broadcasting, including independent producers, satellite TV and other services	Copyright Protected
72000	Cable television	Copyright Protected
95620	e. Photography	
95620	Photographic studios, agencies, etc	Expression Copyright Protected
83260	f. Software and Databases	
83260	Data processing and related publishing	Output Copyright Protected
	g. Graphic Arts	
9422	Museums and art galleries	Copyright Protected
9415	Artists, sculptors and other independent artists	Copyright Protected
	h. Advertising Services	
83251	Advertising agencies	Copyright Protected

2.3. The Jamaican Economy

The development potential of Jamaica lies in four key properties:

1. A large section of the labor force, with significant amounts of domestic tacit knowledge and education, is not currently employed in the private sector but, rather, is comprised of self-employed workers without employees, paid outworkers, and unpaid workers in agriculture and other activities. The data in Table 2 describe changes in the structure of the broad employment categories and the unemployed. Between 1991 and 2001, the share of self-employed workers without employees increased by 8.6 percent, from 22.3 percent to 24.2 percent of the labor force, contrary to normal development expectations that it should have fallen. Also contrary to development expectations, the share of paid employees fell by 14 percent from 37.3 percent to 32.4 percent rather than increasing. From the perspective of the share of persons employed in the private sector, Table 3 shows that this only recovered to 2001 levels between 2001 and 2005. Taken together with increasing debt burden and budget deficits, this provides evidence that the economy is characterized by rising imbalances but with the imbalance in the factor markets indicating unused productive and development (transformative) potential and relatively low capacity and sparse technology sets in the private sector. Accordingly, for the imbalances to be removed and for the economy to become “developed” in the process, the unused production capacity is being deployed to produce more income (in the short term) and to transform the structure and scale of the production capacity of the economy (in the medium to long term), even if the economy simultaneously reduces some forms of domestic absorption. The central aspect of that unused capacity is the unused entrepreneurship, tacit knowledge and real built capacity that can be transferred into the private sector.
2. Regarding increase and transformation of capacity, persons with the employment status identified in (1) can be deployed into the private sector to produce its domestic capital, especially tacit knowledge that can create copyright as capacity and use it profitably in production in collaboration with other resources. As indicated above, one reason is that these persons represent underemployed education and tacit knowledge. The data in Table 4 describe patterns of change of group characteristics for the period 1991 to 2001. The category of self-employed without employees achieved rapid growth of mean levels of education over the period, 1.76 percent per annum, from 7.5 years in 1991 to 8.8 years in 2001, as compared to approximately 1 percent for those persons in government and private sector employment, and only 0.59 percent for the capitalists. By contrast, real income growth was highest among government employees (13.5 percent) and private sector workers (12.2 percent), with that of the self-employed without employees growing at a lower rate of 10.5 percent. The general result is that the domestic production capacity of the self-employed is growing at a rate far lower than its product, contrary to the condition required for development.
3. Apart from the important role of direct government investment in infrastructure, there is significant room to increase profit flows by reforming the financial institutions and thereby expanding the supply of money by increasing the flow of credit to the main actors investing in domestic capital-intensive activities.
4. There exist growth engines that can absorb the output generated through deployment into the private sector of the workers identified in (1). These are mainly the markets provided by the growth regions of the OECD countries, the large surplus labor countries of the Asia/Pacific region as well as Brazil’s vast growing economy in Latin America.

Table 2: Comparative Structure of Main Employment Categories and Unemployment, 1991 and 2001

Main Employment Category	1991		2001		Difference 2001 and 1991	Percentage Change since 1991
	Percent	Cumulative Percentage	Percentage	Cumulative Percentage		
Paid Government Employees	12.89	12.89	10.97	10.97	-1.92	-14.90%
Paid Employee in Private Enterprise	37.32	50.21	32.41	43.38	-4.91	-13.16%
Paid Employee in Private Home	5.55	55.76	5.86	49.25	0.31	5.59%
Unpaid Employee in Agriculture or in any other type of Business	1.46	57.22	2.11	51.38	0.65	44.52%
Self Employed with Employees	3.16	80.38	4.33	55.69	1.17	37.03%
Self Employed without Employees	22.27	82.65	24.2	79.89	1.93	8.67%
Employed, other	-	-	1.53	81.41	N/A	
Employed, category not stated	1.92	84.57	4.5	85.92	2.58	
Unemployed	15.43	100	14.1		-1.33	-8.62%
Total	100		100			

Source: Calculated from Census 1991 and 2001

Table 3: Structure of Employment in Jamaica, 2001 to 2005

	Year				
	2001	2002	2003	2004	2005
Employment Status	%	%	%	%	%
Central or local government	8.11	8.06	8.06	7.42	7.63
Other government	2.36	2.39	2.84	2.59	2.69
Private sector, paid	41.46	39.21	39.39	43.33	43.07
Unpaid workers	1.86	1.3	1.28	1.43	1.54
Employer	2.71	2.49	2.36	2.24	2.29
Self-employed	34.47	32.38	33.68	30.15	30.49
Other, not stated	9.02	14.18	12.39	12.85	12.28
Total	100	100	100	100	100
of which					
Private sector employment rate	44.17	41.7	41.75	45.57	45.36
Government	10.47	10.45	10.9	10.01	10.32
Lewis Subsistence	36.33	33.68	34.96	31.58	32.03

Source: Generated from STATIN Labor Force Surveys, 2001-2005

Table 4: Education and Earnings of Main Employment Categories with Unemployment, 1991 and 2001

Main Employment Category	1991		2001		Mean Annual Earnings of 2001 at 1991 Prices	Growth of Average Years of Education	Average Annual Rate of Growth of Average Years of Education	Growth of Mean Annual Earnings at 1991 Prices	Average Annual Real Earnings Growth
	Mean Years of Education	Mean Annual Earnings	Mean Years of Education	Mean Nominal Annual Earnings					
Paid Government Employees	10.7	28,539	11.7	442686.5	67073.7	9.6%	0.99%	135%	13.5%
Paid Employee in Private Enterprise	9.4	21,730	10.3	317989.4	48180.2	9.4%	0.94%	122%	12.2%
Paid Employee in Private Home	7.8	9,678	8.7	173375.3	26269.0	12.0%	1.20%	171%	17.1%
Unpaid Employee in Agriculture or in any Other Type of Business	7.3	9,628	7.6	82970.2	12571.2	4.4%	0.44%	31%	3.1%
Self Employed with Employees	9.5	34,801	10.1	501654.6	76008.3	5.9%	0.69%	118%	11.8%
Self Employed without Employees	7.5	13,965	8.8	169319.2	26684.7	17.6%	1.76%	105%	10.5%
Employed, other			9.0	228682.4	34827.6				
Employed, not stated	8.7	18,702	8.9	215156.1	32699.4	2.5%	0.25%	74.4%	7.4%
Unemployed	9.1	-	9.7	-	-	8.5%	0.65%		
Total	9.0	20,317							

Utilization of this potential in domestic-capital formation will raise import productivity – the crucial partial factor productivity that must grow for the economy to develop. This is another way of recognizing that Jamaica must grow faster than its imports and, in particular, faster than the so-called developed countries, its main source of imports. This could be achieved by using as growth engines one or more of the following:

1. An increasing share of the markets of the developed countries (which are growing on average at just under 5 percent per annum).
2. A significant share of the markets of the large surplus-labor countries, such as Brazil, China and India whose growth rates average about 8 percent (Lewis, 1954; James, 2006a).

The importance of exploiting such growth engines is magnified by the small size of the Jamaican market. Given the growth performance of the economies in (2) above, the growth rate achieved by Jamaica should exceed 5 percent if it is to keep up with the international economy. However, Jamaica achieved real growth that averages only 1 percent per annum in the 15 years to 2005 (Table 5), and several of its industries, such as furniture and apparel, have lost substantial ground because demand has fallen off with changing conditions of penetration into the US market as well as absence of necessary adaptive capacity by the local industries. This is very low growth relative to the rate needed and the worst growth performance in CARICOM. It illustrates that policy-makers should not take for granted that the mere existence of growth opportunities implies that they can be readily exploited. Appropriate capacity must be established, adapted and expanded as the conditions of market penetration change over time. In particular, growth performance in excess of 5 percent per annum requires relatively faster growth of those activities, such as copyright and sport, that (produce and) employ special local knowledge and other domestic capital and take advantage of available externalities to develop domestic comparative advantage and generate relatively high income on a sustainable basis (Lewis, 1955; Topel, 1999; James, 2006a). The poor growth performance by an economy that has not yet solved the fundamental sociological problems of capital formation dramatizes the need for Jamaica to look more carefully at the potential of domestic capital-intensive and creative sectors such as the copyright-based industries, with the focus on addressing the real and working capital needs of the target groups that are exploiting available development potential. Such a focus is also justified by the profile of the successful firms in the Jamaican economy. One of the results of an ordered profit regression based on data from a random sample of 324 Jamaican firms (surveyed under a University of the West Indies project) is that the successful firms in Jamaica, in particular the establishments with high profit growth in the past two

years, characteristically give a better than average role to the following factors, ordered by the size of impact coefficient (z-score) on profit growth (Table 6):

- Reliance on the University of the West Indies for hiring of internal research staff (0.784)
- Focus on profitability in managing production (0.559)
- Matching the competition through marketing (0.205)
- Use of external professional services to improve business culture (0.186)
- Reliance on local business conference for information (0.178)
- Hiring new research staff as an HR strategy (0.13).

On the other hand, the less successful firms tend to give a substantial role to the following factors, ordered by the size of their negative effects (z-scores):

- Reliance on “other local colleges” for hiring of internal research staff (-1.503)¹⁴
- Reliance on electronic media for information (-0.178)
- Focus on cost in managing production (-0.118)
- Use of external professional services to improve knowledge management (-0.109)
- Use of research as a team builder (-0.083).

The results provide striking confirmation that the successful firms act in a manner consistent with the expectations of the framework of interpretation presented above, that, for development, firms must be focused on expanding their domestic knowledge-creating capacity. In particular, the evidence suggests that the successful firms (i) focus on recruiting the types of staff who can play a significant role in accumulating human capital as capacity to know and to exploit the value-creating potential represented in the firm’s knowledge; (ii) create unique new knowledge, typically tied to intellectual property (hereinafter “IP”), which can be deployed to add value; and (iii) ensure better use of generally available knowledge, technologies, and techniques to support self-sustaining profitability and profit growth above the relevant industry average. A central aspect of the development problem is that the share of such successful firms in the pool of entrepreneurs is too small. The majority of firms do not pursue such a focus (James, 2007).

In light of all the above data, the estimation method must improve the ability to answer certain central questions: (i) What program of investment would contribute most to development of the sector while fostering favorable movement of relative prices of domestic capital-intensive output and import-intensive commodities, favorable comparative growth rates of the domestic-capital-intensive sector and the import-intensive sector on the one hand, and favorable comparative growth rates of the local and foreign economy, on the other? (ii) How should this program of investment be financed? (iii) What are the key sociological adjustments which would foster behaviors that ensure sustainability?

¹⁴ “Other local colleges” include the local tertiary institutions other than the University of Technology and Northern Caribbean University.

Table 5: Growth Rates of Real GDP (%) in CARICOM Countries

Countries	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average
Bahamas	-2.7	2.1	-2.1	2.0	1.1	4.2	3.3	3.0	5.9	-4.9	-2.0	0.7	0.9	3.0	n.a	1.7
Barbados	-3.9	-7.2	0.8	4.6	2.4	3.2	4.6	6.2	0.5	2.3	-2.6	0.5	2.0	4.8	3.9	1.5
Belize	3.1	9.5	4.3	0.2	0.6	1.5	3.6	3.7	8.8	12.3	4.9	4.3	9.0	4.6	3.1	4.9
EC Currency Union	2.3	4.2	2.1	3.0	0.7	2.7	3.2	4.0	5.5	2.7	1.3	0.5	3.0	4.0	5.2	3.0
Guyana	7.8	7.7	8.3	8.5	5.1	8.0	6.2	-1.7	3.0	-1.4	2.3	1.1	-0.6	1.6	-3.0	3.5
Jamaica	0.5	2.6	2.4	1.0	2.3	0.2	-1.0	-1.2	1.0	0.7	1.5	1.1	2.3	0.9	1.4	1.0
Suriname	3.5	-0.2	-7.2	3.2	0.4	2.1	6.5	2.3	-1.4	1.8	4.3	2.8	4.7	8.0	2.0	2.2
Trinidad & Tobago	2.9	-1.1	-2.6	5.0	3.2	2.9	1.2	4.6	5.8	7.3	4.2	7.9	13.4	6.5	7.0	4.5
AVG.	1.7	2.2	0.8	3.4	2.0	3.1	3.5	2.6	3.6	3.8	1.7	2.4	4.3	4.2	2.8	2.8
Std Dev	3.7	5.2	4.7	2.6	1.6	2.3	2.5	2.8	3.4	4.3	2.8	2.6	4.7	2.4	3.2	3.3
Co-eff of Variation	2.2	2.4	6.3	0.8	0.8	0.7	0.7	1.1	0.9	1.1	1.6	1.1	1.1	0.6	1.1	1.5

Source: Caribbean Centre for Monetary Studies, UWI St Augustine

Table 6: Probit of Profit Performance on Critical Success Factors Reported by Firms in Jamaica

Ordered probit regression	Number of obs =268					
	LR $\chi^2(11) = 130.64$					
	Prob> $\chi^2 = 0.0000$					
Log likelihood = -284.5176	Pseudo R ² =0.1867					
Dependent variable is Rate of Growth of Profit	Coefficient	Std. Err.	Z	P> z	[95% Conf. Interval]	
Matching the competition through marketing	0.205	0.063	3.28	0.001	0.083	0.328
Hiring new research staff as an HR strategy	0.130	0.051	2.55	0.011	0.030	0.230
Focusing on profitability in managing production	0.559	0.076	7.34	0.000	0.410	0.708
Focusing on cost in managing production	-0.118	0.050	-2.37	0.018	-0.215	-0.020
Relying on UWI for hiring of internal research staff	0.784	0.270	2.91	0.004	0.255	1.312
Relying on other local colleges for hiring of internal research staff	-1.503	0.403	-3.73	0.000	-2.293	-0.712
Relying on local business conference for information	0.178	0.080	2.22	0.026	0.021	0.335
Relying on electronic media for information	-0.178	0.080	-2.22	0.026	-0.336	-0.021
Using research as a team builder	-0.083	0.039	-2.15	0.032	-0.159	-0.007
Using external professional services to improve knowledge management	-0.109	0.050	-2.18	0.029	-0.208	-0.011
Using external professional services to improve business culture	0.186	0.060	3.12	0.002	0.069	0.303

3. A Broad Profile of the Copyright-Based Industries in Jamaica

The copyright activities of Jamaica have evolved to take advantage of the development opportunities identified above and cover a wide range of activities specified by WIPO (2003) under the core, interdependent, partial and non-dedicated groupings. Table 7 shows the comparisons and provides some idea of how the industries differ from the WIPO classifications. The differences are specific, apart from the general difference of the level of exploitation of development opportunity mentioned in the background and elaborated later in the methodological justifications and clarifications provided in Section IV, giving details of the role of the self-employed as the basis for generating the estimates of the GDP of the copyright sectors. Comparisons are provided for each segment. The information guides the identification of the copyright factors and hence the activities included in the assessment of employment contributions in Section VI.

3.1. Core Copyright Industries

3.1.1. Press and Literature

As indicated in Table 7, in the case of Jamaica, this subgroup covers the full range of creators/activities/products/services identified by WIPO (2003) under this category: authors, writers and translators; print and electronic newspapers, including emerging blogging and podcasting on the Internet and WorldWide Web; outputs of new regional and international agencies operating in Jamaica; producers of magazines/periodicals; book publishing; cards and maps; production of directories and other published materials; pre-press, printing, and post-press of books, magazines, newspapers; advertising materials; wholesale and retail of press and literature by bookstores and newsstands, and libraries. The regional news agency, Caribbean News Agency (CANA), conducts operations in Jamaica, which has eight major and several minor newspapers with local and international circulation by mail and from newsstands and bookstores, as well as online global circulation linked to well-developed commercial websites (Table 8). The oldest and most prominent of the national papers is *The Gleaner*, produced by the Gleaner Company, which has existed since 1834 and boasts a long list of important scholarly articles and reports, including the famous piece by Arthur Lewis (1964) on Jamaica's economic problems. The Gleaner Company produces six of the eight major newspapers, two daily, two weekly and two weekend papers. The flagship *Gleaner* reports hardcopy circulation of about 165,000 and *The Sunday Gleaner* achieves a circulation as high as 190,000, local and foreign. *The Observer* (35,000 weekly and 80,000 on weekends) is the second largest, followed by *The Herald*, with a circulation of about 20,000. All of these papers thrive mainly on advertising revenues. There are also several significant community papers with local and overseas readers, some of which achieve a total circulation of as many as 100,000 copies, thriving mainly on their circulation and not on advertising.

Notwithstanding the growing importance of digital circulation, the distribution process is still dominated by the labor-intensive means of vendors sitting on the sidewalk or by bookstores earning a tiny margin for making the product available.

Personality Profile: *The Jamaican* in Lorraine Murray – To understand the trajectory of press and literature in Jamaica is to understand more than the wages, taxes, depreciation, and operating surpluses of large printers or the daily newspapers. It is also about how small investors like Lorraine Murray get started and progress with the tough task of producing literary art as a viable creative magazine financed mainly by advertising and sustained by a growing readership that is sophisticated and cosmopolitan in its appreciation of the local space. Lorraine Murray graduated from the University of the West Indies in 1976 with a Bachelor of Arts degree in English and Geography and went on to work in public relations and advertising. Five years later, Lorraine moved on to form a publishing company, Deeks Designs Limited, with the main aim of starting her own magazine – *The Jamaican* – which is produced at her home office. *The Jamaican* is about Jamaica.

With her husband Richard providing personal inspiration and support, she has been producing the magazine for twenty years now and has built up a good network. Lithographic Printers provide credit for printing and the magazine pulls talent from a wide field of freelance writers, photographers, and graphic designers who each share a strong passion for Jamaica. A highly visual publication, *The Jamaican* provides graphic artists and designers alike with a space in which to experiment and promote their expertise. Three graphic design specialists regularly featured are Heather Kong, a graduate of California State University with ten years' working experience with several major tabloids in the US, Susan Lee Quee, who lectures at the Edna Manley College; and Kibo (Robert Thompson), an artist by profession and owner of a successful graphic design company. Of Heather Kong, Lorraine says, "She brings a fresh new look to the pages of the magazine, along with mutual learning, tacit knowledge and streamlined production." *The Jamaican* proudly displays the works of the nation's best photographers: Franz Marzouca, Howard Moo Young, Cookie Kinkead, Tony Wong, Donette Zacca, and Kai Meng Lui. With the photographers, Lorraine has practiced a sort of bartering, trading access to space and an appreciative audience for access to artistic expression. Two advertising sales representatives, Jean Jones and Marlena Biart, sell advertising on commission, generating revenue for production and printing. Additional revenue comes from magazine sales and subscriptions.

Lorraine has taken *The Jamaican* from a 40-page, mostly black-and-white magazine to a 180-page, full-color glossy publication. The presentation of content is unique. In each issue, readers are taken on a 'Jamaican Journey' where they explore the richness of *The Jamaican* experience. Over the years, issues have covered Jamaica's history, creative arts, culture, sports, music, and even its politics – all the dimensions of life in the country which are meaningful *loci* of identity in Jamaica.

Lorraine took *The Jamaican* into the Technology Innovation Centre (TIC) at UTech in 2002, a proper office for the first time. Three of the benefits have been discipline with monthly meetings, assistance with accounting, and proper back-office services such as photocopying, faxing, and mailing. Even so, there are central needs not met at the TIC to date: help with marketing and penetration of foreign markets; professional assistance with website construction; financing and strategies for taking the magazine to the next level. And what about training for the industry? Not where it should be - in photography, graphic design or the use of modern ICT, whether at the Edna Manley College, TIC, UTech or UWI. This is because of inadequate perspectives on applied computer technology and occupational training. Most young people still graduate from these institutions with very little job-specific skills. It would be good if the top professionals in the industry, local and foreign, could somehow be part of a program of exposure for students.

There are also more than 85 printers who provide a range of services for business and offices: calendars, diaries, brochures, labels, business forms and cards, letterheads, reports and magazines, etc, screen-printing on T-shirts and other media, as well as billboard advertising and banners.

Jamaica has established a National Information System (NATIS), which consists of voluntary institutions, such as libraries, archives, information and document units, which gather materials in print, audiovisual and electronic formats for the needs of the nation. One such institution is the Jamaica Library Service which has library network services in 13 parishes and 116 branch libraries. There are 12 special services, including hospitals, penal / correctional institutions, and children's places of safety. In an effort to adequately protect authors and composers, as well as to improve the information being collected on Jamaica's copyright industry, the National Library of Jamaica was established in 1979 and is managed by a Board of Management appointed by the Minister of Tourism, Entertainment and Culture on the recommendation of the Council of the Institute of Jamaica. The Legal Deposit Act of 2002 designated the National Library as the principal legal entity for fostering and promoting knowledge of Jamaica's history, heritage and information sources (http://www.nlj.org.jm/docs/legal_deposit.htm). It acquires materials published, issued or produced in Jamaica, items published or produced by Jamaica or Jamaicans abroad, as well as items published or produced abroad about Jamaica or Jamaicans. Additionally, it also manages the International Standard Book Number (ISBN) program and the Legal Deposit System. It issued 586 ISBN codes and 56 ISSN codes for the period April 2005 to March 2007. The Library's relatively new audiovisual department focuses on identifying, collecting, providing access to, preserving and maintaining the social, cultural and market value of Jamaica's heritage in the form of sound and moving image resources.

Over the years, the Jamaican book and magazine publications segment has been led by several internationally acclaimed authors such as Trevor Rhone, Rex Nettleford and the incomparable Louise Bennett (Miss Lou). It is widely known that, throughout the decades, many of the country's competent authors had to migrate to the US, Canada or the UK in order to achieve both international acclaim and a viable livelihood. Jamaica's many local authors, writers and translators are served by 19 publishers of books, periodicals and directories, and Nurse *et al.* (2007) describes the latter's core competence as location and processing of manuscripts into a market-ready form for distribution and to nurture and develop talent. In terms of publication rates, some of the larger operations, like Ian Randle Publishers Limited and the University of the West Indies Press, indicate that they produced more than 25 publications in 2005, including reprints and new books. One publisher in the WIPO consultations set up to support this study indicated that a growing number of books are published and sold through international networking arrangements that result in earnings that accrue abroad and do not show up in the local accounts in any form, making an accurate count difficult. The same point is made by Nurse, *et al.* (2007). Online publication of digital books (e-books) and even e-articles, or use of video clips that can be transmitted through the cell-phone and other hand-held devices, has not yet become a major practice among Jamaica's authors and publishers.

Distribution is still achieved by the labor-intensive process of the bookstore with a cash register, or the occasional book vendor with no formal records at all. Nurse *et al.* (2007) report that Jamaica and the wider CARICOM form the only area anywhere in the world not hosting an International Book Fair.

The Caribbean Institute of Media and Communication (CARIMAC) leads training for press and literature in Jamaica, and the institution is able to build on primary and secondary elite programs that are highly suited to providing throughput to tertiary education in the field.

The typical employee of this copyright sub-sector is a paid employee. The group of self-employed without employees accounts for only about 5 percent of workers and about 6 percent of earnings. So the underemployed potential is not generally large, and development in the sub-sector would most likely have to draw workers

Training Intervention: CARIMAC was established in 1974 with assistance from UNESCO, the Friedrich Ebert Stiftung Foundation, and USAID. It is CARICOM's only regional tertiary communications school and offers certification programs covering diploma, undergraduate, and graduate options for studies in media and communications – print, radio, video, multimedia and public relations, with some innovative local offerings such as Community Media, HIV/AIDS and Responsible Reporting, and Improving Journalism in Haiti. Students can follow courses of study up to PhD. Training runs through the year, including the summer. CARIMAC aims to offer educational opportunities to young professionals who would otherwise be unable to benefit from the tertiary educational system and to offer training in areas of high priority in the Caribbean not included in the regular curriculum. Success at CARIMAC has stimulated the publication of books and papers, including the results of research.

from other areas of surplus labor in the economy. Notwithstanding the role of CARIMAC, the typical self-employed person in the sector has only 10.4 years of education and the typical paid employee only 10.7 (Table 10).

3.1.2. Music and Theatrical Productions

Jamaica's most famous copyright industry is in this segment, covering mainly reggae and dance music and theatrical productions, but also including growing elements such as gospel and jazz festivals. Within these broad areas, the full range of activities in the WIPO classification is present: composers, lyricists, arrangers, choreographers, directors, performers and other personnel; printing and publishing of music; production/manufacturing of recorded music; wholesale and retail of recorded music (sale and rental); artistic and literary creation and interpretation; and performances and allied agencies (e.g., booking agencies, ticket agencies). As might be expected for an industry that relies heavily on the creative talents of the individual, there is a high rate of self-employment in the sector. This is typified by the segment representing authors, composers and independent artistes, in which self-employment accounts for 24 percent of total worker earnings and 35 percent of total employment. The level of education of the sector is also low, with the typical self-employed worker averaging 10.3 years of education and the other employees averaging only 10.6 years (Table 10).

The general indication from the labor market data is that underemployment is high in the industry and that, even though creative output is prolific, only a few of its segments have significantly exploited available development opportunities and none has done so to the fullest because of the slow inflow of diversified investment from major local or international business interests. The music industry has achieved world standards from the standpoint of the flow of creative writing and live performances. Over many decades, it has featured a steady and growing stream of world class performers, many signed by the big international labels. These include the immortalized artiste of the 20th century, Bob Marley, and greats such as Jimmy Cliff, Beres Hammond, Beenie Man, Shaggy, Sean Paul, Ziggy Marley, Damien Marley and Patra, all of whom enjoy high sales figures internationally.

Musical Profile – Bob Marley Person and Yaaad: On his website, <http://web.bobmarley.com>, Bob Marley is portrayed in the first lines as follows: "a hero figure, in the classic mythological sense. His departure from this planet came at a point when his vision of *One World, One Love* -- inspired by his belief in *Rastafari* -- was beginning to be heard and felt. The last Bob Marley and the Wailers tour in 1980 attracted the largest audiences at that time for any musical act in Europe." But it is perhaps at the Bob Marley Museum that the story is best told. On a leaflet one is given on a full visit to the Museum, one gets a tight but effective summary of what one sees on the tour. The Museum visit is an experience that beats the expectations created on paper. Kingston, 56 Hope Road to be exact, is home to the Bob Marley Museum, a treasured storehouse of the amazing life of Jamaica's youngest cult hero – perhaps the life that best demonstrates how dedication to creative expression and the codification of domestic tacit knowledge simultaneously hold the key to wealth, elimination of the psychological scars of slavery, and discovery of true freedom. The museum uses the most modern technologies to preserve memories, memorabilia, artifacts, writing, photographs, pictures and film. 56 Hope Road is a *yaaad*, a house, an exhibition hall, a boutique, a gift shop, and a theater, with murals, pictures, mementos, mango trees, all in one. It is also a spiritual home – the former home of Marley's family, the famous Tuff Gong Recording Studio, as well as the Tuff Gong Record Shop, and Ziggy Marley's Record Manufacturing. The "*yaaad*" where Robert Nesta Marley practiced for many hours, day and night, inventing the music that has risen to the status of genre in its own right.

- The *Yaaad* - features a football mural, a legendary "jeep," and enough space for a six-a-side soccer game when the moment and mood require it.
- The House - has transformed the original rooms to provide maximal information, displaying a life-sized 3-dimensional hologram of Bob from the *One Love Peace Concert* of 1978, the Grammy Lifetime Achievement Award of 2001, and an enviable display of gold and platinum records sent from around the world.
- The Exhibition Hall - is primarily a transcendental musical experience, where one can randomly experience anything from the alluring, pulsating, and instructive inspiration in *No Woman No Cry*, to the unifier in *One Love*, or the revolutionary in *Songs of Freedom*.
- The Gift Shop - is strategically nestled under the trees and operates as an African heritage shop that goes fundamentally to what is first among the things Marley stood for – creativity. It offers Cedella Marley's *Catch A Fire* clothesline along with the full range of Marley CDs, footwear, T-shirts, key chains and posters, to name a few of the items.

- The Boutique – provides another angle on the Marley spirit – “Things from Africa,” clothing, arts, craft, paintings, picture, and postcards, often as a Jamaican expression but also as a genuinely African expression. It also offers the odd stunning artistic expression one could find nowhere else. All this in one space.
- The Theater – crowns the museum experience. Bob kept up to date with the world of music and indeed led it. The theater preserves this aura of a modern soul – air conditioning, 80 seats, state-of-the-art projection equipment, video tapes of live concerts – and presents dramatic memories of the first among the equal politico-social musical geniuses of all time.

Ernie Smith – Another Jamaican Musical Legend: Ernie Smith is a recognized great in Jamaican music, with a career spanning several of the great decades of Jamaican music. He was there in the late 1960s in the heady pioneering years of “rocksteady” when the “down beat” was invented and Jamaican music headed for the international stratosphere. Ernie smashed his way into the limelight with a series of hit recordings: *Bend Down, Ride On Sammy, One Dream, Pitta Patta* and *Duppy Gunman*, leading up to the smash hit recording in 1967 of his original composition *I Can't Take It*, which took Jamaica and the Caribbean by storm. One recalls how it was a theme song for the young and the young at heart and its international impact when it was later recorded by Johnny Nash as *Tears On My Pillow*. On his website – <http://www.erniesmithmusicltd.com> – Ernie recalls how these “massives followed in quick succession, including *Bend Down, Ride On Sammy, One Dream, Pitta Patta* and *Duppy Gunman*.” In 1972, Ernie won the Grand Prize at the World Popular Song Festival of the Yamaha Foundation in Tokyo, with his original composition *Life is Just for Living*, competing with songwriters like Neil Sedaka and Michael Legrand. He became the first Jamaican musician to win an international award and, for that, became in 1972 the first popular musician to be honored by the Jamaican government with the award of the Badge of Honour for Meritorious Service in the Field of Popular Music. As with many musicians of the era, such as Bob and Tosh, the creativity in Ernie’s music rests on a will to record a political sociology, something which neither the privileged classes nor the governments of his youth took to too kindly. His classic political commentary *The Power and the Glory* led to his exile in the US in 1976. Ernie views it as an irony that “the once-banned song is still relevant and even more popular at the present time. Today, thirty years after the song’s release, Ernie is once again based in Jamaica and *The Power and the Glory* is once again a battle song for Jamaican talk shows and community activists.”

Ernie is a prolific writer, with over 200 songs, several recorded by other great artistes, including Johnny Nash, Rita Marley, Chakka Demus and Pliers, Twigg, Ken Lazarus, John Jones, Eddie Lovett, and Yellow Man. He has played on most of the world’s great stages – Madison Square Garden, New York (1973, 1974 and 1999); Place de Nations, Montreal; Camp Fortune, Ottawa; Ontario Place, Alexandria Palace, Convocation Hall, Toronto; The Martinez Ballroom, Cannes, Disney World, France; Rio de Janeiro, Brazil; Expo 93, Taejon, and Muju Resorts, Korea; Nippon Budokon Hall, Tokyo, Japan; Henry J. Bean Club, Brussels; San Marino, Milan, Rome, Italy; and all over the wider Caribbean homeland where his name is as revered as it is in Jamaica – Belize; Guyana, Barbados, Trinidad and Tobago, St Lucia, St. Vincent, St. Maarten, the Cayman Islands. Ernie shared the stage with many legends, local and international – Bob Marley, Peter Tosh, Buju Banton, Beres Hammond, Byron Lee and the Dragonaires, Johnny Nash, Skeeter Davis, James Carr, Hugh Masekela, Johnny Cash, to name only a few.

The record tells a story of how Jamaican music succeeds by using the local and regional markets as a base from which to penetrate all segments of the foreign market. Of any four of Ernie’s performances over a period of, say, two months, three would be in “foreign”. Ernie Smith’s awards speak volumes in this regard and, as in the case of his music and stage appearances, we cannot exhaust the list here: *Award of Merit, Canadian Reggae Awards (1993); Longevity Award, CHRY 105.5FM, Canada (1993); Best Produced Album in Jamaica for the year 1997 – After 30 Years Life Is Just For Living, JAMI; Best produced song of the year, Didn't Know We Were Poor (1993); his 1993 show 30 Years...and Counting, deemed the best show ever produced in Jamaica; nomination for the Bob Marley Lifetime Achievement Award – Tamika Awards, New York (1999); Lifetime Legend Award, Heineken Star Time (2001), along with Shaggy and the Mighty Sparrow; the prestigious Musgrave Bronze Medal, along with Chris Blackwell (gold, Music) and Oliver Samuels (silver, Theatre); Living Legends Award, along with Ken Lazarus, Keith Lyn, David Rudder, Byron Lee, and the Mighty Sparrow, (2004). He was again honored by the government of Jamaica with the Order of Distinction, Officer Class (2006). And so Ernie continues his lifetime achievements indeed!*

Music printing and publishing is a natural complement to this flow of artists and writers. On the one hand, as the industry depends heavily on the international community for the technology of recording and related distribution, it is an insignificant manufacturer of recorded music, with only one important but struggling manufacturer and with most of this form of output being CD replication. On the other hand, major segments of the local industry include the long-established production and recording studios and, more recently, the roving deejay (disk jockey) complete with marketable lighting and sound capacity and remarkable creative live performances with attendant sound and video recording capability. Some recording studios are of international repute, such as Tuff Gong, Dynamic Sounds, and Sonic Sounds, the last two being members of the International Federation of the Phonographic Industry (IFPI). The recording studios typically combine mastering, mixing, music publishing and music retailing but are not averse to venturing deeply into major production activities, as is evident from the work of Byron Lee of Dynamic Sounds, who led the revival and evolution of the Jamaica carnival, now a major event on the Caribbean entertainment calendar.

Without the benefit of a survey, Witter (2004) estimated that there are as many as 200 recording studios, with many being run as one-person operations (Witter 2004). There are claims of more than 200 sound systems in Jamaica, and the largest and best known is Stone Love, which has existed since 1972 and is now so big that it can play simultaneously at many parties on the same night in several venues in Jamaica and internationally.¹⁵

Theater, including a strong commercial aspect, is a longstanding and highly reputable feature of the Jamaican landscape of copyright-based industries. It has been estimated by Nurse *et al.* (2007) that there are currently nine dance companies and 13 theater companies in operation. The National Dance Theatre Company, L'Acadco, Ashe, Area Youth Foundation, Stella Maris Dance Ensemble (headed by Monika Lawrence), Tony Wilson Dancers (headed by Tony Wilson), Movements Dance Company (headed by Monica Campbell), and many dance groups in the Jamaica Cultural Development Commission's annual competitions are all well known in Jamaican theater.

The Little Theatre Movement (LTM) was founded in 1941 by Henry Fowler and Greta Bourke, who undertook to raise funds to build a Little Theatre and foster development of drama in Jamaica. Perhaps its greatest creative input was the invention and maintenance of the theatrical tradition called the National Pantomime, first introduced in 1941 with a stage presentation that featured a traditional Caribbean mix of music, song, dance, comedy, drama and colourful costumes and sets. Under the leadership of its two pioneering legends, Louise Bennett (Miss Lou) and Ranny Williams, the LTM National Pantomime was "indigenized" and "Jamaicanized" to feature "Jamaican culture, folklore and historical references". As such, the Pantomime deploys "some of Jamaica's leading talent in every area of production, from script writing to music composition, set and costume design, choreography as well as on-stage performance." Indeed, "members ... are called upon to learn various skills in order to bring a new level of excitement for each new show" (www.ltmpantomime.com).

Like music, the LTM National Pantomime, specifically, and Jamaican Theatre, generally, has its long list of internationally – known stars who have developed the work of Miss Lou and Ranny Williams. Among the famous performers are Oliver Samuels, Leonie Forbes, Lois Kelly-Miller, Charles Hyatt, Volier Johnson, Willard White, Rita Marley, Dawn Penn, and others. Among the distinguished authors are the Hon. Barbara Gloudon, who is reported to have authored most of the pantomimes for the LTM, as well as Lloyd Reckord and Pat Cumper. Among the musical talents are Marjorie Whyllie, Robert Lightbourne, Grub Cooper, Conroy Cooper, Peter Ashbourne, Boris Gardner, Carlos Malcolm, Desi Jones, Noel Dexter, and Lloyd Lovindeer. Artistic talents include Karl Abrahams, Albert Huie, Colin Garland, Lorna Goodison, Laura Facey, and Denise Forbes. And, headlining the dance tradition, are the great choreographers Rex Nettleford, Eddy Thomas, L'Antoinette Stines, Jackie Guy, Tony Wilson, Bert Rose, Monica Potts-Lawrence, and Joyce Campbell (www.ltmpantomime.com).

¹⁵ See, http://www.imexpages.com/stonelove/company_profile.htm

Their directors, actors and related musical performers include internationally known personalities such as Oliver Samuels, Barbara Gloudon, Trevor Rhone, Rex Nettleford, Basil Dawkins, Trevor Nairne, Brian Heap and others who are leaders in the industry across the wider Caribbean and in Caribbean communities in the US and Europe. National and corporate sponsorship of festivals and related organized competitions are major features of this segment of the industry and more, generally, of the copyright-based industry of Jamaica.

The music and theater segments are closely integrated and make intensive use of domestic tacit knowledge. In some ways, this is epitomized in the creative work of the Little Theatre Movement (LTM), Jamaica's current longest-surviving theater company. With its legendary invention, the National Pantomime, the LTM can boast that "[t]here is no recorded equivalent of a similar sustained theater tradition in the English-speaking Caribbean" (www.ltmpantomime.com).

Jamaican music and theater express the essence of the Jamaican being but have largely developed commercially in Jamaica without the benefit of a comprehensive incentive and encouragement program, industrial support, or training and financing policies such as is provided to the motion picture and film industry. Artistes and other industry investors in music and theater do not enjoy the same kind of tax exemption status provided to film, even though the music and theater industries have a substantially greater impact on Jamaica's economy, employment and image than film.

As a consequence, even though Jamaican theater has substantial international appeal, its rate of development is hampered by high production costs, which have grown over the years, as well as a lack of interest from large-scale investors, local or foreign. Much of the tacit knowledge of the industry is yet to be codified into fixed capital that could bring lasting income. It is reported, for example, that: "The scripts of the pantomimes, which have been the most popular and successful Jamaican productions for a long time, have never been published or written down for others to read. This is because pantomimes depend to a great extent upon the personalities, the musical turns, dancing and humorous situations, rather than the quality of the scripts for their success. Local playwrights, other than writers of sketches and pageants for particular occasions, are relatively new in Jamaica" (www.ltmpantomime.com). Nonetheless the industry has found innovative solutions to this problem as well as the problems of rising costs and limited policy support and it now appears to be expanding. Today, a substantial number of "actors, musicians and other operative persons like stagehands, lighting men etc.," can function as professionals in Jamaican theater (www.ltmpantomime.com).

There is some evidence that the traditional policy stance is changing rapidly with more recent attention being given to the sector by a refocused JAMPRO (Jamaica Trade and Invest). This augurs well for the level and type of investment that could be attracted to the sector.

3.1.3. Motion Picture and Video

The activities identified in the motion picture and video segment of the copyright-based industries include writing, directing, acting, motion picture and video production and distribution, video rentals and sales (including video on demand), and allied services. There is an annual or biennial motion picture exhibition of complete galleries that attracts international attendance (Nurse, *et al.* 2007). From a macroeconomic perspective, the industry features a high rate of underemployment, with 12 percent of earnings and 36 percent of employment accounted for by the self-employed. The average level of education in the sector is quite low, with the typical self-employed person having achieved 10.6 years and other employees averaging even less at 9.6 years (Table 10).

The motion picture industry is very new in Jamaica, but its range of activities is growing mainly because of the dynamic development of the interface with music through music videos, corporate documentaries,

advertisements, live television shows of the Jamaica carnival, and a whole series of competitive culture-based events that produce video clips linked to the cell-phone competition of the major companies such as Cable & Wireless, Digicel and Mi-Phone. A number of outstanding local soap-opera productions tied to the talents being developed in Jamaica's musical theater have been produced and marketed successfully within and outside Jamaica, such as TRAXX and Royal Palm Estate.

In more recent times also, some stimulus has come from government investment of substantial resources to facilitate development of film's more traditional import-substitution aspects, such as feature films and dramas. This effort promotes the development of writers, directors, actors, etc., through training of capacity in film, video, and TV technology at CARIMAC at UWI (where a degree is granted for successful completion of a course of study) and the more commercially-oriented Creative Production Training Centre (CPTC). However, the central feature of the government's film thrust is an aggressive effort to attract foreign investment in motion picture and video production and distribution from Bollywood and Hollywood.

Specifically, to facilitate investment in the sector, the government provides direct assistance with all aspects of film production, including provision of a comprehensive service for all filmmakers in production or location scouting, as well as provision of incentives for production companies. In this regard, the government, in 1993, passed additional amendments to its Motion Picture Encouragement Act (1948), which provides a "recognized film producer" with relief from income tax for a period not exceeding nine years from the date of the first release of the motion picture, an investment allowance of 70 percent of the expenditure on the facilities, which may be carried forward beyond the initial nine-year period for income tax purposes, and exemption from the payment of import duty on equipment, machinery, and materials for the building of studios or for use in motion picture production.

Dividends to local investors paid by companies in the industry are not subject to withholding tax and, by the provisions of various double taxation treaties, the same can also apply to non-resident shareholders. Investors in the sector can also benefit from other programs that are funded by the National Lottery and by the European Development Fund's program to support development-oriented activity. As a result, some employment is created for local skills when a few foreign productions are filmed in Jamaica. Nurse *et al.* (2007) observe as follows:

"While overseas filmmakers have been coming to Jamaica from the early 1900s, it was only in the 1980s, when the government instituted a targeted plan to attract overseas productions to Jamaica, that there was a dramatic increase in the number and types of film projects shot in Jamaica. JAMPRO has been instrumental in developing relationships with most of the major Hollywood studios. The international films shot in Jamaica include *How Stella Got her Groove Back* for Twentieth Century Fox, *Legends of the Fall* for TriStar Pictures, *Cool Runnings* for Walt Disney Pictures and *Lord of the Flies* for Castle Rock Entertainment. The Film Commission acts as a one-stop office and takes the producer from the pre-production through the production stage."

3.1.4. Radio and Television

The activities of the radio and television category in Jamaica essentially match those of WIPO, covering national radio and television broadcasting companies; other radio and television broadcasters; independent producers; cable television systems and channels; satellite television; and allied services. Although one segment of the sector is highly import-intensive, so that much of what is offered in mainstream television is imported, the independent producers are expanding their role, driven mainly by the music-intensive theater and the performing arts and, especially, by the production of music and sports videos.

Mainly as a result of implementation of the structural adjustment agenda since the 1980s, Jamaica now has 16 national radio stations; three national television broadcasting companies (CVM, which is privately owned; the Jamaica News Network (JNN) and TVJ, which still feature substantial government ownership; and Love TV, a privately (owned religious channel); the cable training operations of CPTC and JNN; the local national cable operations of Hype TV, RE TV, SportsMax and Music Plus; and about 55 licensed private subscriber cable television distribution companies operating in various zones across Jamaica and registered with the overseeing body, the Broadcasting Commission of Jamaica. The government has also recently established a public television operation in the Public Broadcasting Corporation of Jamaica (PBCJ). Further, Jamaica is also served by two relatively new regional channels, CaribVision and Tempo.

These operations in radio and television provide significant demand for the products of the local music, video and dramatic arts industry. The Commission's role is to ensure that standards are maintained and that permission is received for the programming used, including music and other copyrighted works. There is also an unregulated Digital Satellite System (DSS) service to which many households subscribe in order to use a digital rather than analog signal and gain access to a greater range of stations than Cable TV provides.

From the perspective of the conditions in the labor market that define the framework of opportunities for sector expansion, there is substantial evidence of underemployment in the sector. The self-employed generate about 26 percent of all earnings and 14 percent of all employment. The typical self-employed person has nine years of education, compared to the much better education of paid employees who average 13.2 years (Table 10).

3.1.5. Photography

The photographic industry in Jamaica provides a range of services and copyrighted products, including photographs, canvas portraits, laminating, production of wedding albums and photo calendars, large-format printing of architectural designs and drawings, photocopying and scanning, AUTOCAD plotting services, and reproduction of flyers, posters, banners, business cards and brochures. There are more than 35 medium-to-large operators supplying these services and a substantial number of small companies and individual operators. In terms of organization, photographers are generally members of the Jamaica Guild of Artists. According to the Guild, the work of the industry is led by prominent photographers such as Peter Ferguson, Hugh Wright, Franz Marzouca, Howard Moo Young, Tony Wong, Jeremy Francis, Shakira Khan, as well as members of well-known clubs such as the UWI Camera Club and the Just Black and White Photography Club. Under the auspices of the Guild and with sponsorship from local businesses, an annual exhibition – the Art and Photography Festival – is organized to showcase and sell the products of photographers and other artists. The Festival is the brainchild of Tony and June Wong, the former listed among the leading photographers on the Jamaican scene. In this exhibition, each artist showcasing works must be present to meet the public in person.

Photography in Jamaica has developed with an intuitive and creative feel similar to that of other creative arts in the country. A large part of the sector is self-employed. Specifically, up to 44 percent of all employment and 35 percent of all earnings in the sector are generated by self-employed persons (without employees). The Jamaica Guild of Artists laments the level of training of those involved in photography and the level and quality of training provided by the Edna Manley College. The mean number of years of education among the self-employed is 9.8, which takes the average self-employed to about Grade 9. The average for all other workers in the sector is about 10.8 years, which means that they barely completed Grade 11 (Table 10). This is evidence of substantial underutilized potential in the sector.

This problem has a significant impact on the types of business organizations in the industry and the extent of exploitation of the industry's commercial potential. However, there are those who have been able to substantially exploit that potential such as Peter Ferguson (<http://www.peterferguson.net>) and Franz Mazouca, who are prominent exceptions.

Personality Profile: Peter Ferguson is a commercial photographer operating in Kingston who epitomises the creativity in photography based on advanced training. He illustrates the flaw in the argument that advanced training might "spoil" the creative thrust of artistic expression in the country. Peter Ferguson is a graduate of Concordia University in Canada, who majored in graphic design but turned to photography. He established a studio, which has gone on to become one of Jamaica's leading commercial photographic studios, deploying ample space, up-to-date digital image processing facilities and photographic equipment that allow creation of high resolution images, guaranteeing quality in an effective flexible format, along with traditional film and slides (<http://www.peterferguson.net>). Ferguson was the first to introduce digital imagery into Jamaican photography; first to introduce e-commerce complete with a website. Ferguson produces images for a wide range of applications, such as advertising, fashion, food, and corporate portraiture. His clients are mainly advertising agencies, local, regional and international (the US, the Cayman Islands, Barbados, Trinidad, and the UK) but he also produces for books and magazines. This artist has also been involved in publications, having produced the fashion/lifestyle magazine KRIS and, more recently, a potentially classic book entitled *Changemakers: 101 Portraits of Men in Jamaica*. The book has a foreword written by Professor Rex Nettleford, with an introduction by David Boxer. It presents a "respectful but searching" look at these 101 men in order to provide a mirror of the Jamaican middle class male, what Ferguson calls "the ticking heart-beat of a nation".

Ferguson admits that the industry faces severe limitations – in terms of how its commercial potential is exploited. One limitation is the local-market focus. Jamaica has found no significant place in the growing global photography market. Part of this problem is that the industry emerged mainly in the hands of the non-traditional, mostly black entrepreneur, opening it to the ravages of prejudice and discrimination in the international market. But Ferguson recounts: "I came back to Jamaica because the market in Canada was not productive for a Jamaican artist and designer." He is of the view that Jamaica is the market that will nurture and facilitate development of a black artist – a matter of sociology – even given the battles, because of knowledge of the twists and turns, and the channels of opportunity, of the local society. Notwithstanding his advanced training, Ferguson is only now exploring the full advantages of copyright but is aware of its potential for a sustainable stream of earnings. He worries about the low level of professionalism in the industry but observes that "there are experts that can do well in the local market." He continues as follows:

"Poor training is part of the problem. Training facilities are limited but those in Edna Manley should not be written off. If anything, they should be upgraded. However, training at the tertiary level is very weak and problem-solving training is obtained mostly on the job. There needs to be better mainstreaming of photography and such arts in the schooling system, just like in US and Canada where many of the key technologies are taught at the secondary level. Sound education and training are the foundation of the industry. Since photography is about people, a lot of this is all about respect; no qualifications, no respect. The industry is not as dynamic as music but it can become so. The problem is that most persons in the industry are not trained, not even literate. Maybe 10 percent of the photographers are well trained; 90 percent are not. This casts a bad light on the whole sector and has to change if the industry is to progress rapidly. The industry thrives by relying greatly on modern technology and it will tend to grow as it adopts and adapts newer digital technology. However, education is necessary to maximise benefits. The industry has a lot of unused potential to be explored by the individual artist, but the artists themselves must become more interested in artistic expression. Perspectives also have to widen. There is enormous potential for book and video production but these are not adequately explored. In my book, I celebrate society, manhood, etc. More of that is needed and there will be attendant gains from copyright. People are simply not seeing photography sufficiently as industry. That includes policy makers but the real problem is in the members of society and the players in the industry. There is need for more dialogue and collaboration among the artists. There is enough work to sustain the market but the commercial orientation is not strong and there are too many one-man shows. Moreover, the industry needs to educate the country better about the worth of photography. That requires better marketing and branding."

3.1.6. Software and databases

This component is a small but growing segment of the copyright-based industries. The development of skills in graduates of UWI, UTECH and HEART, along with the establishment of Mona GeoInformatics as a commercial venture at UWI and the highly subsidized Technology Information Center providing e-business-oriented incubation services at the University of Technology (UTECH), has led to a blossoming of programming, development, design and distribution of pre-packaged software (business programs, video games, educational programs, etc.) and database processing and publishing.

Few employees in the sector are self-employed. Most are well-educated, with about 14.3 years of education among the self-employed and 11.7 among the various kinds of paid employees (Table 10). This suggests that expansion potential lies in attracting employees from other sectors, especially from among the ranks of the self-employed.

The Technology Information Center (TIC) was established in 2002 by the University of Jamaica as a transformation of the Kingston Entrepreneurial Center. It aims to promote the use of modern technologies as the basis for the successful transition of small and medium businesses into sustainable growth entities. Specifically, the TIC seeks to assist businesses in using Internet-based technologies and customized software solutions to develop new business models and enhance the capacity of member SMEs to develop their local and international comparative advantage and success in the marketplace. The activity range of client businesses includes: software production and sale of software solutions; standards management and quality control; and media productions. Some clients are part of joint ventures with foreign entities. The TIC provides real and virtual office facilities for rent along with technical assistance of various kinds. A major limitation is the absence of a supporting financing mechanism complete with risk management capacity. However, one key element of such a capacity is already in place: tenants must provide the TIC with cash-flow data to facilitate provision of sound business advice. A high rate of use of the Internet and its wide range of copyrighted materials and a high rate of production and sale of copyrighted software solutions and media and related materials are major elements of TIC success.

Mona GeoInformatics is a commercial venture established and owned by the University of the West Indies, Mona. It serves as the GIS hub for the University of the West Indies Mona Campus and mainly produces and sells copyrightable outputs. In addition to serving the campus by delivering GIS courses for various departments and participating in campus research activities, Mona GeoInformatics provides GIS services to the public and private sectors. It provides high-end services and consultations in Geographic Information Systems, Global Positioning Satellite (GPS) systems, and remote sensing for research as well as for government and commercial applications. The two main copyright-protected products being offered by the company are

- A Natural Hazards Information Pack which includes research articles and publications; a photo gallery of natural hazard impacts; a map gallery of published maps; an original map gallery, containing detailed original maps created digitally using primary or secondary data sources; and DVDs/CDs produced jointly by the Unit for Disaster Studies, Mona Informatix Ltd, and Mona Information Technology Services. This pack is currently being offered for J\$100.
- A Landslides Hazards in Upper St Andrew Pack, which includes a field guide and maps, field pictures, a virtual field trip. This is currently being offered for J\$750.

The institution has provided wide-ranging GIS services for numerous government agencies and private sector firms. It has also provided community service assistance to various organizations, including the local Roman Catholic Archdiocese, Mustard Seed Communities, and the Chinese Benevolent Association. Service to these institutions includes: training, consultancy, land use planning, infrastructure mapping, oceanographic modelling, customized map creation, document scanning, and database management. More advanced services include: GIS technical services, GIS analytical services, 3-D conversions, and custom cartography. Other clients of Mona GIS include the Electoral Office of Jamaica, the Gleaner Company, Digicel, the Planning Institute of Jamaica, and the Jamaica Bauxite Institute. Mona GeoInformatics is currently the only organization in Jamaica that can provide advanced geographic information science solutions. <http://monainformatixltd.com>.

3.1.7. Visual and graphic arts

Jamaica has a strong and growing sector of artists and painters as well as sculptors, some with a significant international reputation. There is tremendous potential still to be developed in the industry. About 55 percent of earnings and only 9 percent of employees come from the ranks of the self-employed and the level of education of the self-employed artist is very high, averaging 14 years of schooling. Paid employees are less well educated, averaging only 10.6 years of schooling (Table 10).

One measure of the development potential is achievable productivity. Jamaica is home to a number of internationally-recognized artists, such as Yolanda D'Oyen (graphics and architectural illustration), Keith Morrison (installation), Peter Ferguson, Franz Marzouca, Albert Chong and Howard Moo-Young (photography), Arthur Simms (painting), and David Pinto (Ceramics) (Nurse, *et al.*, 2007; Annex II; www.jamaicaguildofartists.com). Art galleries and other wholesale and retail sales of art and carvings, picture framing, and other allied services are closely tied to the tourism sector, but there is also a significant independent exporting segment and a reasonable local market (Annex II). There is also a viable market of graphic design servicing a variety of linked sectors in clothing and furniture design and allied activities. A substantial segment of the industry is inevitably the self-employed – ‘inevitably’, because it contains the artists and sculptors who operate as individuals and manage their own sales from home, the office, and just about anywhere they make contact with society. There is legislation that stipulates that 1 percent of construction costs should be allocated to the purchase of art (Nurse, *et al.* 2007:130). However, it is not clear that this has stimulated the local industry. The Jamaica Guild of Artists complains of the absence of transparency in the allocation of contracts for installation of art, as well as of the reliance on cronyism, which results in very few open bids. One consequence is that foreign art gets almost 100 percent of the art installation in hotel sector projects where government is actively involved. Another is the absence of a sound policy to address these issues.

Most artists are part-time practitioners, having to be employed elsewhere full time in order to make a decent living. Many point to a general lack of a supporting infrastructure in the sector and lack of pension arrangements and adequate training as reasons for the part-time status. In addition, many in the Guild identified additional factors such as the high cost of materials as a result of high import duties that drive the cost of materials to more than four times the cost of the same materials in the US and, most important, the absence of a favorable personal tax policy that raises art to the status of a pioneering industry. One major issue is the ability of dealers/artists to send works abroad for exhibitions in a quick and easy non-bureaucratic way, with suitable tax exemptions, and the opportunity to expose the country to international art without opening the floodgates to cheap imports. Many artists complain about the administrative and regulatory problems of sending art abroad, especially hassle from customs – in general, the absence of a truly free trade in art.

The Guild also observes that a major part of the missing infrastructure is in publicly-funded opportunities for international and local exhibitions of Jamaican art, even in the major tourism centers. This results in imported work dominating the market. In this regard, the Guild argues that the National Gallery of Jamaica has not functioned properly for 30 years. The National Gallery was established in 1972 and is a part of the Institute of Jamaica.

It was established to “collect, research, document and preserve Jamaican, other Caribbean Art and related material and to promote our artistic heritage for the benefit of present and future generations”. Copyright is integral to both the distribution of the original works and to preparation of copies for distribution, but not much is earned by the Gallery on either basis. Some suggest that this is because the art of Jamaica has been cut off from the international art world for a long time and is not a player in the international market

for duplicates. Many of the artists have had early international exposure during their careers but have since not participated in the bi-annual international exhibitions put on in various countries. Part of the problem is the substantial expense of promoting the works of artists, estimated at not less than US\$150,000 to send one artist to one of the Venice biennial exhibitions. The general feeling is that during this period, because of lack of exposure, Jamaica was not addressing changing market needs, especially the international art market and its changing tastes for contemporary art. Consequently, Jamaican artists have left a limited footprint on the international art market. Moreover, the National Gallery suffers from a lack of visitor/tourist attendance and is perceived by many as elitist and irrelevant to the lives of most Jamaicans. Many constituents from the artistic community feel it is not serving the interests of the general community of artists. Another part of the problem of the exhibition of local art is that certain local artists could not exhibit in the Gallery for many years, and this is perceived to be because of social snobbery and prejudice. The Gallery itself is run by a board of 24 members, which must surely be too large and unwieldy to meaningfully contribute to the development of a responsive, evolving and national Gallery. An important consideration is that the Gallery relies on a subsidy from the government and is not able to serve the interests of all the necessary or potential audiences, including artists.

The Guild thinks that it has essentially replaced the Gallery as the major exhibiting force in the local market. It definitely focuses on more commercial artists while the Gallery in its work with contemporary art tends to stress the work of more academic or avant-garde artists. Regarding copyright, the Guild seeks to protect the interests of members by being a member of JAMCOPY. However, it operates as a volunteer organization without the strong administrative structure and related subsidies that the Gallery has. All of these issues point to a weak economic policy framework in which Jamaican art is produced, typical of the policy framework of the entire copyright sector in Jamaica.

Some of the difficulties faced by the industry have to do with the art school. The industry is served mainly by the Edna Manley College for the Visual and Performing Arts, and some skills are acquired in the secondary school system and in the various teachers' colleges, especially MICO, as well as through apprenticeships with the leading artists.

The Guild of Artists also reports that practical art-specific training is somewhat outdated and excessively theoretical, and that it is deteriorating in quality and currency over time. Most of the highly-skilled talent is trained abroad, and training through the local colleges is narrow, lacking exposure to all the dimensions of modern art and proper placement of Jamaican art in the context of the international market, trends that include the digital arts. In essence, art training is not really part of the mainstream tracking in the Jamaican school system. Art can be much better used as a cross-cutting device and learning aid in a wide range of applications in education. Some effort is made in this direction by the National Gallery, particularly through its teacher open days, but more needs to be done and there is not enough money invested in the effort. Most important perhaps, the major problem is the absence of complementary training in modern management and business, marketing, agency, and law. Training for administrators and curators is absent and there is a general need to close the gap between the training in the business of art and the talents of the artist. It is the opinion of Nurse *et al.* (2007) that

“[t]he teaching and instruction in art education is weak, shallow and fails in some critical areas. There is an absence of documented and published sources of information on the region's artists, their art, regional art collections (private and public) and the Caribbean's art historical tradition. This inhibits the development of a sound basis upon which the valuation of the region's art can be based... There is very little art criticism that goes beyond the journalistic level in the region. Added to this must be the lack of curatorial and other art-specific technical expertise...”

The outcome is that many students simply have no exposure to the changing world of ideas in art, they acquire a narrow vision, and, with their teachers, think without proper justification that they are good enough and do not need to care about the changing demands of the market. With some notable exceptions, Jamaica's young artists sometimes display a distinct lack of professionalism.

The international market is dynamic but Jamaica has not put adequate effort into keeping abreast by attracting reputable and skilled artists to the country or by developing stronger partnerships with other cultural institutions abroad. A major underutilized resource is the successful Jamaican artists living abroad, such as Brian McFarlane, Peter Wayne Lewis, Anna Henriques, and Renee Cox, all of whom have loyalties to the local society and could bring fruitful positive influences to bear on the trend in local art.

However, in recent years, the Gallery has sought to address these issues of revenue, relevancy, and attendance. Strategies include: expanded education outreach programs to all parts of Jamaica; a year-round calendar of special exhibitions (featuring mainly contemporary art exhibitions); a new brochure characterizing its mission and services; special 'open day' programs for teachers; a website and a 'Friends' organization; increased collaboration with other institutions; improved visitor facilities; increased grant writing and sponsorship opportunities; a new coffee shop; and improved signage.

Some things have just started to work – people are more optimistic about the art market these days than they have been for years and they are sensing real change. The culture industries were moved from the Education Ministry to the Ministry of Tourism and it has made a difference in terms of the support for art and the work of the National Gallery. The Gallery is now receiving from the Ministry of Tourism, Entertainment and Culture, the Institute of Jamaica, and private sector companies more substantive and financial support for programming than in the past. The tourism industry is focusing more on placing Jamaican art in hotels, reflecting the success of initiatives by the Spanish Ambassador and the Ministry of Tourism, Entertainment and Culture. The Gallery is now reaching out and trying to become a more responsive organization.

The problem is now much smaller even though the Gallery is still perceived to be too conservative and to favor academic art over more popular work. This year, the Gallery and JCDC are partnering for the first time at the Annual Festival exhibition, which is a crucial showcase exhibition for grass-roots artists, and members of the Guild of Artists are represented on committees of the Board of the Festival. The Gallery is also making efforts to attract international interest. However, the country is small with a small art market. There is a notable interest in Jamaica's "intuitive" or self-taught artists. To date, the Gallery has also been moderately successful in getting foreign galleries, such as the Brooklyn Museum and the Yale Center for Contemporary Art, to be interested in exhibiting works of Jamaican art of a more academic variety. A few works are lent from time to time to a few international galleries, but these are usually works for specific shows, externally organized; the Gallery has been less successful in exporting entire Jamaican exhibitions.

3.1.8. Advertising Services

Advertising agencies have a substantive presence, if only a low profile, in Jamaica as an integral component of the traditional and emerging business communities. Agencies provide a variety of services tied to copy preparation and graphic arts for advertisement, and the design and management of advertising campaigns. The typical agency has about five broad types of specialist occupations: marketing and account servicing specialists who liaise with clients; specialists with responsibility for booking spaces with media houses and all vehicles; creative specialists – in particular – graphic artists, copywriters, producers, and distributors.

An agency operates as a principal in the relationship with the media, and is typically accountable to the media for funds due, whether or not such funds have been paid by the advertiser. Specific agreements with clients involve specific payments for copyright for the work that is produced. Usually, within the companies every employee on the staff signs an agreement that copyright produced during the course of work belongs to the company. Much of that copyright is then assigned to the advertising company but both methods are largely gratuitous and viewed by the industry as necessary for its development. Such arrangements could change over time as industry players pay more attention to the benefits of their own copyright protection.



Company Profile: OGM Integrated Communications Ltd. was established in 1998 as a locally-owned, full-service advertising agency committed to building brands through innovative communication strategies, sound research, outstanding creativity and excellent client services. Within its first year, OGM entrenched itself as an award-winning member of the Advertising Agency Association of Jamaica and was fully accredited by the Media Association of Jamaica. This was achieved by combining the proven practices of advertising with the expanding capabilities of the 'digital age' to create an agency that is a seamless extension of its client's marketing operations and one constantly engaged in building and defending its brand. OGM was awarded the 1999 Peer Award for Agency of the Year and numerous awards from media houses. Within five years of its establishment, OGM was ranked among the top three agencies in Jamaica and entered the wider Caribbean markets. OGM operates as a full-service communications agency offering strategic planning and implementation expertise in the areas of: advertising, corporate strategy, direct marketing, media relations, and analysis and issues management.

The main strength of OGM is the quality of its skills base. Its Managing Director and lead entrepreneur, Oral G. McCook, is an advertising executive with an extensive background in the areas of food service, corporate association, and government advertising. Prior to establishing OGM, he was General Manager of McCann- Erickson Jamaica, where he led advertising, marketing, and promotion projects for clients such as Restaurants of Jamaica/KFC, Coca Cola, Industrial Commercial Developments Ltd. (ICD), Insurance Company of the West Indies Ltd. (ICWI), Roche, Nestlé, Unilever and Gillette. Its CEO, Everton A. Patterson, holds an M.B.A. from the Manchester Business School and the University of Wales and has over 22 years' experience in the area of finance. Before OGM, Patterson was a Senior Manager at Intercontinental Merchant Bank.

OGM's creative team is young and bold. Senior management ascribes much of OGM's success to a staff it describes in such terms as "some of the most gifted creative minds in the industry", "exuberant, with ability to delve beyond the required" and "cutting-edge conceptualizers, witty wordsmiths, and gregarious graphic designers." OGM utilises the latest technology to deliver award-winning, groundbreaking, mass and alternative media campaigns for its clients. Its creative team has mastered the art of animation, so the agency has been able to add 3D graphics and animation to its list of capabilities.

OGM has a strong customer service orientation and is focused on understanding the client, the competitive environment, market research and the available marketing tools that will realize the client's goals. Its customer care capacity is rooted in finance, education, information technology, sociology, marketing, media and communication, economics, music, and advertising, and the company has developed a reputation for rapid roll out of attention-grabbing ads, providing clients with the flexibility and responsiveness needed to be brand leaders. Its media department analyses media forms and competitive trends, handles campaign development and daily media placements, often making use of special packages in order to maximise the clients' reach, and cost per impression. On-going training ensures that the media planners maintain their competitive edge. OGM has developed media servicing capabilities tailored to a deregulated and highly competitive media environment. The agency uses both secondary and primary market research to guide its media strategy. The advantage of its domestic capital and tacit knowledge is illustrated by strong programmes – such as Digicel's Rising Stars - - relying on local culture that it has rolled out with success for Digicel.

OGM has demonstrated that, by using domestic capital and related tacit knowledge intensively, a local company can compete with international players for clients in the local market. It now holds the accounts of leading firms such as Restaurants of Jamaica/KFC, Pizza International/Pizza Hut, The Jamaica Broilers Group, DIGICEL, City of Kingston Co-operative Credit Union, Grace Foods, and the Jamaica Football Federation. The agency also does work for various charitable organizations, in addition to handling two corporate goodwill accounts – the Digicel Foundation and the Jamaica Football Federation. OGM has pledged to provide each of these accounts with J\$2 million of creative support with the aim of renewing its pledge at the end of each term.

The industry is made up of several types of players. There are 18 accredited agencies and an additional 15 that are not yet accredited. About six are relatively important in the local scheme. Several of these have close affiliation with foreign groups, such as McCann Erickson, which operates a wholly-owned local subsidiary; McCann Erickson Jamaica Limited. McCann Erickson Worldwide is the largest advertising agency network with global reach. Another major operator is Water Works, which is affiliated with Ogilvy, another of the world's large networks of advertising and marketing agencies. The top advertising agency in Jamaica is Carter, Gambrill and Robinson (CGR), which operates the Cable & Wireless mobile account. CGR is affiliated with Mindshare which operates the Nestlé account worldwide. OGM Integrated Communications Ltd (OGM) is number three on the list and has the distinction of being completely home-grown. It operates major accounts such as KFC, Digicel, and Jamaica Broilers. It epitomizes the outcome of transferring Jamaican creativity in the copyright sector outside of the music industry. Jean Lowrie Chin is the most prominent of the small agencies and has emerged as primarily a public relations practitioner. However, this is neither the most profitable nor the main thrust of the sector. Advertising is an industry that is increasingly dominated by visual effects and graphic design.

The industry is dynamic and operators tend to be very flexible, as the various segments change roles all the time. A major key to success is the quality of the internal team work in the companies, in particular, the ability to seize opportunities that come along. The team must be interested in, and capable of, delivering high quality, be able to receive and react to strong feedback, correct errors, develop extensive market knowledge, and keep technology up to date. Even so, there is a substantial amount of freelancing for creative work in many cases, but the trend has been toward internal employment with top-class artists.

Industry representatives indicate that many trained persons can be found in the market but that much training is also needed. The Edna Manley College of Visual and Performing Arts is the main source of training. It is highly rated by the industry, especially for being highly responsive to the needs of the sector. The advertising service industry also recruits from abroad, and industry investors indicate that the latter are more cosmopolitan in their views of the industry possibilities and methodologies. They display more scope for developing suitable interpersonal relationships that drive success in the industry.

Discussions with the major agency leaders in the industry also indicate that free-to-air TV is the main medium of advertisement for most local agencies, accounting for up to 50 percent of the total media allocation of advertisers. The main stations are TVJ, which gets the larger share of the market, and CVM, which is smaller but growing more rapidly than TVJ. Not much business goes to Love TV, which is viewed as small and weak as a media outlet. Television is the main medium (50 percent of allocation). The print press is also an important medium, with the major player being *The Gleaner*, followed by *The Observer* and *The Herald*.

However, community newspapers play a significant role, especially in specifically-targeted media campaigns that seek to reach the local community audiences. Cable TV is third in line as an advertising medium. In recent years, it has obtained a lot of business in the high-density areas of Kingston/St Andrew and Montego Bay. News is the main attractor for TV, cable, and print press. In this mix, sport is a big attractor for ads and, in some ways, is also the best because it provides a lot of inexpensive high-impact content. In this regard, a significant market has evolved around congratulatory messages to, and endorsements of, high-performing elite sport and music personalities. There is not much of a market for financial news, because of the small size and recent slowdown in the stock market. But in all these cases, significant issues of copyright arise.

Radio is a very dynamic advertising medium in Jamaica and now provides a substantial market with a growing share. Its progress was based on the liberalization of the airwaves from the 1980s, with a

blossoming of morning programs, daily talk shows, and important sports or music event coverage. IrieFM, the internationally famous reggae station, is now the largest and fastest-growing of the radio media. It is built on a mass reggae market and, hence, is the best market now for ad marketing. Radio is reported to be the number two medium after the free TV stations.

Outdoor media, in the form of signs along roads, billboards and super-boards, bus shelters, digital TV outdoors, painted signs, and similar devices take a growing share of the advertising media business. The growth has emerged from the changing technology of communication that is reducing the amount of time a person spends in front of the TV or listening to the radio, and increasing the amount of time spent on the road retrieving information from cell-phones and other mobile communication devices.

Billboards and super-boards are the most effective in this context, accounting for about 70 percent of the total market. Use of billboards/super-boards has grown as a means of impacting the market mainly because of the rapid growth of competition for space in the digital media and the fall-off of print media. Three companies dominate the segment – Caledonia Outdoor, the largest, followed by National Outdoor, and SignTex. Cinema is a small and relatively volatile component of the media market for advertising.

The inclination of the industry operators is to prevent evolution of an oligopoly even though the aforementioned large agencies exist. The industry is monitored by the Consumer Protection Agency and operates within the ambit of the Media Association of Jamaica. There is an accreditation process, which is largely a financial mechanism, based on the size of accounts won, and which has been set up by the Media Association of Jamaica to regulate entry into the upper echelons of the industry. Accreditation is a difficult process and only two agencies have been accredited in the last eight years.

3.1.9. Collective Management Societies

In addition to the continued affiliation of many artists with foreign collective management societies as described above, Jamaica is served by four Collective Management Offices (CMOs) and one rights clearance organization, as follows:

1. Jamaica Association of Composers, Authors and Publishers (JACAP)
2. Jamaican Copyright Licensing Agency (JAMCOPY)
3. Jamaica Performers Administration Society (JPAS)
4. Jamaica Music Society (JAMS)
5. Intellectual Property Service Centre (IPC)

From the standpoint of registered members, the largest local agency is JACAP, the performing rights society which licenses the use of copyright music and manages collection of royalties for performance of the works of about 1,104 authors, composers and publishers. However, many artistes, perhaps the most important, are still affiliated with the Performing Rights Society (PRS) in the UK and the American Society of Composers, Authors, and Publishers (ASCAP) or Broadcast Music Inc. (BMI). JAMCOPY is a collective management society for reprographic rights. It administers the reprographic rights of authors and publishers of works in print media by issuing licenses on behalf of its members. JPAS licenses the use of performers' works and JAMS licenses the use of recorded music on behalf of record labels and producers. The IPC acts as a depository for copyright material and provides services to users of literary and artistic works in obtaining clearance for use of local and foreign material. Important in the process of collective management is the Intellectual Property Unit of the Organized Crime Investigation Division of the Jamaican Police, which has responsibility to enforce intellectual property laws in Jamaica.

In general, all of these agencies are tiny, with two to four clerical employees, a manager, one or two computers, and related furniture comprising a typical operation. Most employees other than managers have no better than grade 11 education and typically have less. All of the copyright agencies lack sophisticated databases for storage of comprehensive data on clients and provision of the level of knowledge of the clients required to adequately represent their interests in the local and regional policy arena. In all cases, even the basic data on the level of education of the artist are not available.

A Copyright Tribunal is also a feature of the Jamaica Copyright Act. The Tribunal is established under the Act to determine matters related to licensing schemes or licenses offered by a CMO to users and royalty rates for recordings and computer programs. The best staffed of the copyright agencies is the Jamaica Intellectual Property Office (JIPO), which was established as a Statutory Agency in February 2002 under the Jamaica Intellectual Property Office Act.¹⁶

JIPO operates within the Ministry of Industry, Technology, Energy and Commerce and has three divisions/departments – Copyright; Trademark, Designs and Geographical Indications; and Patent – run by a staff of 22. The Office has both a developmental and administrative focus and offers services that support IP capacity building of individual creators and innovators, small and medium-sized enterprises (SMEs), and corporations and institutions. JIPO carries out an ongoing public education program, working in collaboration with public and private sector interest groups. In conjunction with WIPO, it facilitates training, human resource development and institution strengthening in various aspects of IPR and develops sector-specific programs and projects in conjunction with other agencies and private sector entities. JIPO also plays a pivotal role in IP policy development and implementation, with respect to both the technical aspects of IPR and cross-sector issues relating to IP, such as international trade, e-commerce, bio-diversity, science and technology, and environmental management. The Office provides official representation on IP at local, regional and international levels.

Table 7: Comparisons of Structure of Copyright-Based Industries in WIPO (2003) and Jamaica	
WIPO Activity Classifications	Activity Structure of Jamaican Industry, Considered in Light of Effects of Copyright Protection
Press and Literature	
Authors, writers, translators;	Authors, writers, translators;
Newspapers	Newspapers
News and feature agencies	News and feature agencies
Magazines/periodicals	Magazines/periodicals
Book publishing	Book publishing
Cards and maps	Cards and maps
Directories and other published materials	Directories and other published materials
Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials
Wholesale and retail of press and literature (book stores, news stands)	Wholesale and retail of press and literature (book stores, news stands)
Libraries	Libraries

¹⁶Prior to January 2001, the administration of the various intellectual property laws was carried out by different government ministries until one responsible unit was established within the then Ministry of Commerce.

Music, Theatrical Productions and Opera	
WIPO Activity Classifications	Activity Structure of Jamaican Industry, Considered in light of Effects of Copyright Protection
Composers, lyricists, arrangers, choreographers, directors,	Composers, lyricists, arrangers, choreographers, directors,
Performers and other personnel	Performers and other personnel; live deejays
Printing and publishing of music	Printing and publishing of music
Production/manufacturing of recorded music	Production/manufacturing of recorded music
Wholesale and retail of recorded music (sale and rental)	Wholesale and retail of recorded music (sale and rental)
Artistic and literary creation and interpretation	Artistic and literary creation and interpretation
Performances and allied agencies (booking agencies)	Ticketing agencies
Motion Picture and Video	
Writers, directors, actors etc.,	Writers, directors, actors etc.,
Motion picture and video production and distribution	Motion picture and video production and distribution
Motion picture exhibition;	
Video rentals and sales including video on demand	Video rentals and sales including video on demand
Allied services	Allied services
Radio and Television	
National radio and television broadcasting companies	National radio and television broadcasting companies
Other radio and television broadcasters	Other radio and television broadcasters
Independent producers	Independent producers
Cable television (systems and channels)	Cable television (systems and channels)
Satellite television	Satellite television
Allied services	Allied services
Photography	
Studios and commercial photography;	Studios and commercial photography;
Photo agencies and libraries	Photo agencies and libraries
Software and Databases	
Programming, development and design	Programming (use related)
Manufacturing, wholesale and retail pre-packaged software (business programs, video games, educational programs, etc.)	Wholesale and retail of pre-packaged software (business programs, video games, educational programs, etc.)
Database processing and publishing	Database processing and publishing
Visual and Graphic Arts	
Artists	Artists
Art galleries and other wholesale and retail	Art galleries and other wholesale and retail
Database processing and publishing	Database processing and publishing
Picture framing and other allied services	Picture framing and other allied services
Advertising Services	
Collective Management Societies	

Table 8: Number of Operators and Type of Service offered by Printers and Publishers in Jamaica

	Number of Operators
Newspapers	8
Calendars, brochures, labels, business forms and cards, letterheads, reports, magazines, diaries and periodicals, tickets and programs	34

Screen printing, retail signage, outdoor billboard advertising, banners, mounting, lamination	13
Art reproduction on canvas, floor graphics, window graphics, vehicle graphics, backlit graphics, UV varnishing, art and layout design, image transfer on T-shirts, cups, mouse pads and plates	11
Security checks, security documents, pay slips, envelopes, customized pre-printed continuous forms	5
school magazines, certificates, stickers, compliment slips, rubber stamp manufacturers	5
Full color digital printing, full color offset printing, digital proofing, color separation, graphic design	17
Publishers of books, periodical and directories	19
General publishing and printing services	40

Table 9: Leading Jamaican Theater Operations, Personalities and International Market Focus/Touring Experiences

Performing Company	Leading Personalities/Leaders	International Touring Experiences/Leading International Markets
Ashe Performing Arts	Michael Holgate	CARICOM; US
Area Youth Foundation	Sheila Graham	UK, CARICOM, Italy
L'Acadco	L'Antoinette Stines	US, Canada
National Dance Theatre Company of Jamaica	Rex Nettleford, Barry Montcneffe, Marjorie Whyllie	US; CARICOM; UK, Canada, Australia, Venezuela, Cuba, Germany, Russia
Wolmer's Dance Troup	Barbara McDaniels	Netherlands, China
Xaymaca Dance Troup	Barbara McDaniels	US
Tivoli Gardens Dance Troupe	Jennifer Garwood	US
Praise Academy	Cynthia Patricia Noble	US
Movements Dance Company	Monica Campbell	US
Basil Dawkins Jamaica Players	Basil Dawkins	US, Canada
Stella Maris Dance Ensemble	Monika Lawrence	US, Canada
Tony Wilson Dancers	Tony Wilson	US
Little Theatre Movement Pantomime Theatre Company	Barbara Gloudon	CARICOM, US
Jambiz International Ltd	Trevor Nairne	US
Centre Stage Theatre	Trevor Nairne	US
Ellis Inc.	Owen "Blacka" Ellis	US
University Singers	Noel Dexter	CARICOM; US
CARIFOLK Singers	Noel Campbell	US, Canada
Jamaica Folk Singers	Olive Lewin (Founder)	US, UK, CARICOM
Hatfield Singers	Jean Hill	US, Canada

Table 10: Selected Characteristics of Labor Force in the Copyright Sectors of Jamaica, 2001

Copyright Sectors in Census 2001	Share of Self-Employed in Total Earnings	Share of Self-Employed in Total Employment	Mean Years of Education of Self-Employed	Mean Years of Education of Other Employed
Advertising and Market Research	12%	14%	13	12.5
Authors, Music Composers and Independent Artists	24%	35%	10.3	10.6
Dance Studios	9%	15%	5.5	10.6
Data Processing and Tabulating Services	1%	2%	14.3	11.7
Motion Picture Video Distribution	12%	36%	10.6	9.6
Museums and Art Galleries	55%	9%	14	10.9
Photo Studios	35%	44%	9.8	10.8
Publishing, Print and Publish	6%	5%	10.4	10.7
Radio and TV Broadcasting	26%	14%	9	13.2
Source: STATIN Census 2001				

4. Methodology

National income accounting provides methods of measuring the flows of income, expenditure and output in the Jamaican economy. The core business of STATIN is to provide measures of these flows. This study is concerned with measuring that component of the national accounts that is related to copyright.

One can try to isolate copyright-related value added, copyright-related income or copyright-related expenditure. In that regard, STATIN has provided basic data for 2005 that reconcile the measures of copyright-related income and the copyright-related value added for the copyright sub-sectors listed in Tables 11 and 12. The principle underlying the data in Table 12 is that a contributor to value added buys productive inputs at the purchase price (intermediate consumption), then organizes production with workers and sells the product for a higher figure than the input price paid. The difference in the value of output and intermediate consumption,¹⁷ i.e., the value added (difference of the value of output and intermediates), is possible because of the contributions of value by workers, management, and entrepreneurs that allow payment of wages, profits, indirect taxes, and allowances for depreciation. STATIN currently collects information about this process through its large-establishment survey, covering those with 10 or more employees, and through other supplementary sources, and uses them to identify and reconcile both types of calculations indicated. This method is formalized in the United Nations System of National Accounts.¹⁸ Corrections to the estimates in Table 12 will be made in future as STATIN moves to complete the compilation of a supply and use table, which will help in the reconciliation of the estimates. Measures for some copyright-based industries, such as music and entertainment, are underestimated due to the informal nature of these activities and difficulty in collecting data. Some aspects of the method of the study seek to adjust the STATIN estimates for these underestimations.

Table 11: Coverage of WIPO Copyright Groups in STATIN Data, 2005

JISIC Code (1987)	PRODUCT GROUPS	Description of Activity fitting WIPO Copyright Classification
24212	Publishing of Newspapers	Core - Press and Literature
24214	Publishing of Magazines and Books	Core - Press and Literature
24220	Printing not connected to Publishing	Core - Press and Literature
33731	Manufacture of Records	Core - Music, Theatrical Productions, Opera
6100-6200	Distributive Trade	Core, Interdependent, Partial and Non-Dedicated Activities related to Wholesale and Retail
72000	Communication including Cable TV	Core - Radio and Television, Non-Dedicated Support
83000	Rental of Other Machinery and Equipment	Core and Interdependent
83251	Advertising Agencies	Core
83252	Advertising Services (e.g. Billboards)	Core
83260	Other Business Services	Core, Interdependent and Non-Dedicated
94110 and 94120	Motion Picture and Video Production, Distribution and Projection	Core
94130	Radio and Television Broadcasting	Core
94990b	Other Amusement and Recreation etc.	Core
95620	Photographic Studios	Core

¹⁷ This refers to the difference in the relevant sum of prices.

¹⁸ This UN method is fundamentally *ad-hoc*.

Table 12: National Income and Output for Selected Product Groups, 2005 (J\$ million) – Basic STATIN Indicators

JSIC Code	PRODUCT GROUPS	Wages and Salaries	Compensation for Social Security, etc.	Indirect Taxes	Depreciation	Operating Surplus	Intermediate Inputs	Gross Output	Gross Domestic Product in Producers' Values at Current Prices
24212	Publishing of Newspapers	913.9	97.70	49.2	121.7	481.8	1,554.2	3,218.5	1,684.2
24214	Publishing of Magazines and Books	59.5	1.90	1.2	4.7	30.4	254.8	362.9	98.1
24220	Printing not connected to Publishing	559.5	15.90	28.5	26.3	232.7	1,654.2	2,517.0	882.8
33731	Manufacture of Records	4.3	0.80	2.3	0.8	3.7	35.1	47.1	12.0
6100-6200	Distributive Trade	31,722.8	3,361.90	25,106.2	2,892.8	57,195.7	59,760.3	180,039.7	120,279.4
72000	Communication	7,507.1	2,600.00	427.3	7,716.4	13,690.1	10,943.4	42,684.3	31,940.9
83000	Rental of Other Machinery and Equipment	1,300.9	57.80	93.6	1,559.9	1,240.4	5,400.6	9,753.2	4,352.8
83251	Advertising Agencies	327.0	27.30	3.3	24.8	235.7	1,310.3	1,828.3	618.0
83252	Advertising Services (e.g. Billboards)	146.7	6.20	20.7	12.5	76.1	362.1	624.3	262.1
83260	Other Business Services	516.4	20.41	23.0	33.4	272.3	471.1	1,336.6	865.6
84110 and 94120	Motion Picture and Video Production, Distribution and Projection	67.5	7.80	5.3	10.3	28.0	401.5	540.2	136.7
94130	Radio and Television Broadcasting	918.7	54.60	55.4	140.8	175.3	1,073.7	2,418.5	1,344.8
94990b	Other Amusement and Recreation, etc.	4,891.0	294.18	255.2	523.7	526.9	8,520.1	15,011.1	6,491.0
95620	Photographic Studios	158.9	1.30	0.2	1.1	80.8	206.7	377.0	170.3
7000-7191	Transportation	18,662.4	1,095.22	2,524.4	4,154.3	9,508.9	57,212.7	93,157.9	35,945.2
7192	Storage and Warehousing	9.3	1.17	0.3	9.7	10.4	52.7	83.5	30.9

Source: STATIN

The challenge is to use the STATIN data as a starting point and develop a method of estimation of the contribution of the copyright sector that will also achieve/satisfy the following:

1. Consistently implement the WIPO (2003) methodology.
2. Take adequate account of the key macroeconomic concerns and principles of the Jamaican environment, including principles that guide the computations needed for allocation of policy support.
3. Develop estimators that will be mainly economic and statistical in character, produced in collaboration with STATIN to facilitate routine improvement of the measures over time and routine incorporation into STATIN's annual work plan.
4. Be able to be replicated and developed over time, allowing comparability (i) over time within Jamaica, (ii) among countries, and (iii) with other fields of economic activities, making it possible to do cross-sector analysis.

In general, the specific method of estimation emerges from three considerations.

1. From the data¹⁹ in Table 13, it is generally expected that the wage share of income in the copyright sector accounts for the larger share of the total income generated in the copyright-based industries. The claim is applicable to all the core copyright sectors, except manufacture of audio and video records and tapes/recorded music (36 percent). It is applicable, for example, to press and literature (60 percent), music, picture and video (63 percent), software and databases (60 percent), radio and television broadcasting (75.4 percent), and photographic studios (63 percent). This is an indication that the copyright sector is generally a skill-intensive sector and hence one that makes intensive use of domestic capital.
2. Much of the skill capital of this industry is in the form of tacit knowledge that yields the copyrighted products. In both the wage-employed and self-employed segments of the industry, there is a participating elite that is small relative to a generally large underemployed social pool of tacit knowledge from which they draw information and inspiration. This is the essence of “yard” in Jamaica. In addition, the government supplies a significant part of the infrastructure of some components of the industry, such as public performance facilities for music, though nowhere near the scale enjoyed by sport. The government is also a direct investor in the sector, for example, in radio, television, and motion picture and film development. These conditions imply significant underutilized resources that could be deployed as demand grows with expansion of the size of the successful participating elite. Thus, it can be expected that expenditure to expand the flow of skills and participation in elite copyright activities will dictate the patterns of adjustment of total income and infrastructure in the sector.
3. The motivation to develop the capacity of the elite copyright skills to achieve world class performance and national eminence drives the dynamic expenditure flows in favor of the skills and knowledge of personnel, with the development of related infrastructure as a consequence. Put differently, in the copyright-based industries in Jamaica, it is the desire for investment in skill and capacity of the personnel to achieve local and international pre-eminence that drives the development and utilization of the tacit knowledge and the available physical capacity of the sector, rather than the tendency seen in other industries for the investment in facilities to drive the evolution of demand for personnel. Each round of successful investment in the excellence of personnel in the copyright sector creates a positive human response feedback process through other rounds of copycat behavior – “*riddim riding*” – as individuals seek to emulate the achievements of others. This in turn drives utilization or development of physical capacity as the performance standards of the elite personnel rise in music and other activity. Indeed, it is widely recognized by personnel in the copyright sector that the utilization cycles of copyright facilities are influenced heavily by the successes of local and international elite copyright personalities.

To clarify the exception of manufacturing of records in point (1) immediately above, it is useful to observe that the common pattern manifested in Table 13 is that the sectors that make intensive use of imported machinery and equipment are also the ones with relatively low wage shares. This reflects the high degree of codification of tacit knowledge and the related high degree of labor displacement in the technology of real capital in the OECD countries from which Jamaica imports most of its real capital inputs. This is evident in the low wage share of sectors such as the rental of other machinery and equipment – 29.9 percent or non-

¹⁹The estimated wage shares for the partial copyright sectors covered in Table 13 are based on unpublished data provided by STATIN for selected segments of manufacturing and related activities. These data cannot be published as they do not cover all sectors and hence do not add up to applicable totals over the reported 2 or 3-digit levels of aggregation.

metallic mineral products – 32.1 percent. The contrast with the other copyright sectors is the low level of codification as real capital and intensive use of tacit knowledge and skill embodied in the human capital of the technologies on which copyright firms rely. This explains the high share of labor in other manufacturing of jewelry, watches and the like – 61.6 percent or other amusement and recreation which embodies key elements of the music industry. The important point ultimately is that where the import intensity is high and the wage share low, the productivity of capital is also low, and where the wage share is high on account of intensive use of domestic tacit knowledge and skill capital, the productivity of capital is also high. This has significant implications for policy design in a context in which codified (such as real, imported) capital is generally scarce.

Table 13:
Wage Share of Output in the Core Copyright Sectors and Selected Partial Copyright Sectors, 2005

JSIC Code	PRODUCT GROUPS	WIPO Classification	Average Wage Share
24212	Publishing of Newspapers	Press and Literature	60.0%
24214	Publishing of Magazines and Books		
24220	Printing not connected to Publishing		
33731	Manufacture of Records	Music, Theatrical Productions, Opera	36.1%
83251	Advertising Agencies	Advertising Services	54.0%
83252	Advertising Services (e.g. Billboards)		
83260	Other Business Services	Software and Databases	59.7%
94110 & 94120	Motion Picture and Video Production, Distribution and Projection	Motion Picture and Video	63.1%
94130	Radio and Television Broadcasting	Radio and Television	68.3%
94990b	Other Amusement and Recreation etc.		75.4%
95620	Photographic Studios	Photography	62.8%
6100-6200	Distributive Trades	Distributive trades in Partial, Interdependent and Non-Dedicated	26.4%
72000	Communication	Cable, DSS, other Digital Signals for Radio and Television belonging to Core	23.5%
83000	Rental of Other Machinery and Equipment	In Partial Copyright	29.9%
221-223	Textiles and Wearing Apparel	In Partial Copyright	68.1%
224-225	Leather and Leather Products; Footwear	In Partial Copyright	69.2%
231-232	Furniture and Fixtures, Wood, Wood and Cork Products	In Partial Copyright	49.1%
25 & 27	Chemicals, Chemical Products, Rubber and Plastic Products (incl. Lubricating Oils and Greases)	In Partial Copyright	32.9%
29; 3386	Other Manufacturing, such as Jewelry, Watches and Clocks	In Partial Copyright	61.6%
7000-7191	Transportation	Transport in the Non-Dedicated	51.9%
7192	Storage and Warehousing	Storage and Warehousing in the Non-Dedicated	30.1%

On these bases, in a context of limited data and the absence of a dedicated survey to guide estimation, it is reasonable to minimize error by focusing most attention on ensuring a reliable measure of the payments for work and skill in the copyright sector, with reliance on a set of compensation multipliers and copyright factors to estimate the attendant contributions of taxes, depreciation, and operating surplus. Specifically, we estimate

$$1. \quad Y_s = m_s f_{cs} \omega_{se} w N,$$

where Y_s is the GDP contributed by the specific copyright sector, m_s the reciprocal of the average share of (labor) earnings in total income (the sum of earnings, net taxes, operating surplus and depreciation) in the copyright-based industries as reported by STATIN, f_{cs} the factor identifying the specific share of the STATIN data that relates to the copyright sector, ω_{se} adjusts the STATIN-reported earnings to include the self-employed, w is the earnings per worker, and N the number of workers.

4.1. The Copyright Factors (f_{cs})

Specific copyright factors (f_{cs}) are first needed to identify the share that applies directly to the copyright sector from the aggregates in Table 11 as reported by STATIN. This is particularly relevant to communication, in which is found the data for consumption of core Cable TV services. Table 14 reports the core copyright factors. By the WIPO (2003) methodology, the following core copyright activities are all given a copyright factor of one to indicate that all of the data provided by STATIN or drawn from other relevant STATIN data fall fully into the core sector:

1. Press and Literature
2. Music, Theatrical Productions, Opera
3. Motion Picture and Video
4. Photography
5. Software and Databases
6. Advertising Services
7. Collective Management Societies.

4.1.1. Radio and Television

In the STATIN dataset, the radio and television segment comprises free-to-air radio and television broadcasting. The data for cable TV is embedded in the STATIN data on communication. To isolate this component, a proportionality factor is drawn from the case of Mexico, which has an economy that is similar to Jamaica's in that it is a surplus labor economy that is being transformed partly through fast-paced development and accumulation of its domestic capital, especially its tacit knowledge and cultural inheritance. It is worth noting that the methodology of the Mexico study is also based on practices in Hungary, on the basis that the latter is a middle-income country with access to detailed data on which estimation can be based. Specifically, it is assumed that the proportion of cable TV to total radio and television in Mexico is the same as for Jamaica. This proportion is 0.25 and is used as the resulting copyright factor (Marques-Mees, Funes, and Yaber, 2007: 91 and Annexes). The copyright factor for STATIN's communication category, therefore, does not arise at this time, but it is important to note that the estimate implies a factor of 0.06 that could be applied to communication in this and future work that does not have the benefit of a supporting survey of establishments, small and large.

4.1.2. *Visual and Graphic Arts*

In Jamaica, the information on earnings of visual and graphic arts exists in two main pieces of data: (i) museums and art galleries, reported under the JSIC code 9422 and (ii) art painters, reported under the JSIC code 9415, with the latter embedded in the data on the earnings of authors, music composers and independent artists reported in Census 2001. To extract this component, another proportionality factor is drawn from the case of Mexico. Specifically, it is assumed that the relative share of artists and painters/sculptors in the group is the same as the relative share of visual and graphic arts in the combined total with the category of music, theater productions, and opera in Mexico (Table 15) for their corresponding census year of 1998. The relevant ratio is 0.17.

4.2. The Distributive Trades

Copyright value added in the distributive trades is represented in Table 16. Worker earnings data on these categories are available in Census 2001 to be forecasted up to 2005. STATIN indicates that core copyright activity in this grouping is miniscule. It is recommended that all categories in the Table be treated as either interdependent or partial, as classified in the Table. In that regard, the question arises as to what copyright factor should be used to identify these segments of the copyright sector that are embedded in STATIN's distributive trades in Table 12, where data are not otherwise available to identify the segment. In all cases, estimates are based on the data available in Census 2001 at the 4-digit level. Copyright factors are therefore assigned in Table 17, which contains the classifications of interdependent copyright activities and Table 18, which contains the partial copyright activities.

4.2.1. *Interdependent Copyright*

Table 17 indicates that the typical copyright factor for Interdependent copyright activity is one. The applicable rationale as set out in WIPO (2003: 33) covers two types. First, there is the set that is required for the consumption of core copyright output – core interdependent copyright, i.e., “jointly consumed with the products of the core copyright industries, e.g., there is no television programming unless there is a television.” Second, there is the set that is partial interdependent copyright in that the activities “do not exist primarily to perform functions related to copyright works but significantly facilitate their use”. They include manufacture and wholesale or retail of certain cameras, photographic and cinematographic instruments as well as certain types of paper. One special subgroup classified by STATIN under JSIC Code 6293 as “miscellaneous retailers” is part of a larger group that includes other partial copyright output and other general items such as sports and recreational goods and curio shops selling crafts, with the latter being clearly copyright items. For this special subgroup, we used a very conservative approach and assigned value using the assumption employed in Hungary, which is that no more than 5 percent of all activity in such a group can be assigned to the copyright sector with sufficient confidence, implying a copyright factor of 0.05. Future work should note that if separate coding of data were done for this group, the applicable copyright factors would all be set at one.

4.2.2. *Partial Copyright*

The copyright factors for the partial copyright activities are identified in Table 18. Here too, the selection seeks to implement the WIPO (2003: 33) concept of a set such that “a portion of the activities is related to works and other protected subject matter ...” For this group, the copyright factors are also assigned following the practice in Hungary, typically approximating 0.05. Thus, a 5 percent copyright content is also assigned to various types of furniture, jewelry and similar items, yielding a factor of 0.05. The highest share of content is assigned to the intellectual property in engineering, architecture and surveying, along with museums. As before, we also assign the factor of 0.05 to items in the JSIC Code 6293 with miscellaneous retailers.

However, several variations are observed and estimation in such cases is guided by the data from the Jamaica Survey of Living Conditions since 1990 and by related Hungarian practice. Regarding guidance from the Jamaica Survey of Living Conditions, it is assumed that a substantial amount of the copyright-related activity is motivated by the pursuit of recreation and entertainment by households. The data in Table 19 indicate that, as of 2005, no more than 0.6 percent of household expenditure was allocated to such pursuits. It is reasonable to assume that under the impetus of the search for entertainment, the copyright segment of the various partial copyright sectors will mostly be proportional to this share of entertainment in the household consumption. This assumption is consistent with approximation suggested by the data from the case of Hungary, which indicate that in most relevant cases the share of copyright approximates 0.5 percent. Specifically, in light of the practices in a case such as Hungary, it is assumed that no more than 0.5 percent of the value created in the manufacture of various types of apparel, textiles and footwear can be assigned to copyright, yielding a factor of 0.005. The same applies to manufacture of various forms of chinaware and other dinnerware and ceramics.

4.2.3. Non-Dedicated Support Services

Regarding the non-dedicated services, the main concern is with assigning a value to the spillover effects and externalities that accrue to linked "industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries" (WIPO, 2003: 36). Some of these activities are located in the categories of distributive trades and communications reported by STATIN in Table 12, and some in general transportation as indicated in Table 20. Such activities are common to the other sectors of the economy, not dedicated to copyright, so only a share of their value can be assigned to the copyright sector. Nevertheless, they are important. For example, consumption of copyright at dancehall sessions cannot occur without transportation to and from the events, and the same transportation may be used simultaneously for multiple purposes, with the session being only one stop along the way. Here, we also follow the choice of the Mexican study to use the Hungarian weights as a benchmark (Marques-Mees, Funes and Yaber, 2007). As with the other assignments, this approach is *ad hoc* and analogical but broadly plausible and indicates a copyright factor of 0.6 (Table 20). It is anticipated that improved estimates will become available from a formal survey to support future measurement efforts.

Table 14: Core Copyright Factors to be applied to STATIN Data		
Core Copyright Category	Copyright factor	Justification
a. Press and Literature		
Publishing of Newspapers	1.00	Based on full estimates provided by STATIN
Publishing of Magazines and Books	1.00	
Printing unconnected to Publishing	1.00	
Standards and Related Research	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
General Published Research output	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
Advertising Materials such as Billboards	1.00	Based on full estimates provided by STATIN
b. Music, Theatrical Productions, Opera		
Manufacture of Audio and Video Records and Tapes/Recorded Music	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
Authors, Music Composers, Independent Artistes using Census 2001	1.00	Estimated from Census 2001 to included Self-employed and projected for 8% Earnings Inflation
Music Component of Authors, Music Composers and Independent Artistes	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
Dance Studios	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
Theater and Related Entertainment Services	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
c. Motion Picture and Video Production, Distribution and Projection		
Motion Picture Production	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
Motion Picture and Video Distribution	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
d. Radio and Television Broadcasting		
General (national and other) Radio and TV Broadcasting, including Independent Producers, Satellite TV and Other Services	1.00	Based on full estimates provided by STATIN
Cable Television	0.05	Based on 25% share of cable TV in total subscriptions in Mexico and applied to telecommunications
e. Photography		
Photographic Studios, Agencies, etc	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
f. Software and Databases		
Data Processing and Related Publishing	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation
g. Graphic Arts		
Museums and Art Galleries	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation; discussions with industry leaders

Art painters	1.00	Estimated from Census 2001 to include self-employed and projected for 8% earnings inflation; discussions with industry leaders.
h. Advertising Services		
Advertising Agencies	1.00	Based on full estimates provided by STATIN
i. Copyright Collective Management Societies	1.00	Data provided by collective management societies and public sector agencies
Distributive Trades	0.07	

Table 15: Sectoral Structure of Mexico's Copyright-Based Core Industries: Percentage Contribution to Total

Industry	Value added
	1998
Advertising	10.4
Copyright Collecting Societies	0
Graphic and Visual Arts	3.1
Motion Picture and Video	6.8
Music, Theater Productions, Opera	15.4
Photography	2.6
Press and Literature	45.5
Radio and Television	2
Software and Databases	14.4
Total of Graphic and Visual Arts and Music, Theater Productions, Opera	18.5
Share of Graphic and Visual in Total with Music, Theater, Productions, Opera	0.17
Share of Music, Theater, Productions, Opera in Total	0.83

Source: Mexico Report etc

Table 16: Elements of Copyright in STATIN's Distributive Trades, Jamaica Classification and Copyright Factor

JSIC Code	Description	WIPO (2003) Classification	Copyright Factor
6161	Wholesale of Cotton, Textile Yarn and Fabric	Partial	1
6162	Wholesale of Clothing	Partial	1
6163	Wholesale of Footwear	Partial	1
6164	Wholesale of Leather and Leather Goods	Partial	1
6169	Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c)	Partial	1
6171	Wholesalers of Office Furniture and Equipment	Partial	1
6172	Wholesalers of Household Furniture and Equipment	Partial	1
6173	Wholesalers of Furniture and Fittings	Partial	1
6221	Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	Partial	1
6222	Retail Stores dealing in Household Appliances (Electrical and Non-electrical)	Partial	1
6223	Retail Stores dealing in Furniture	Partial	1
6224	Retail Stores dealing in Jewelry, Watches and Clocks	Partial	1
6225	Retail Stores dealing in Jewelry, Watches, Clocks and Miscellaneous	Partial	1
6231	Retail Stores dealing in Textiles, Wearing Apparel and Other Personal Effects	Partial	1
6231	Retail Stores dealing in Footwear	Partial	1
6251	Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	Interdependent Copyright	1
6252	Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment, including Parts and Accessories	Interdependent Copyright	1
6253	Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	Core and Interdependent	1
6254	Retailers of Cameras and Photographic Equipment	Partial Interdependent	1
6293	Miscellaneous Retailers, including		0.05
	Retail Stores dealing in Books, Magazines and Stationary (Bookshops)	Core and Interdependent	
	Retailers dealing in Antiques and Art	Core	
	Retail Stores dealing in Sports and Recreational Goods	Partial	

Table 17: Interdependent Copyright Activities and Assigned Copyright Factors

JSIC Code	Description	WIPO Copyright Classification	Copyright Factor
2419	Manufacture of Certain Articles of Paper and Paperboard	Interdependent	
2905	Manufacture of Musical Instruments	Interdependent	1
3350	Manufacture of Office, Accounting and Computing Machinery	Interdependent	1
3372	Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	Interdependent	1
3385	Manufacture of Optical Instruments and Photographic Equipment	Interdependent	1
8334	Rental of Radio, Television	Interdependent	1
8335	Rental and Leasing of Data Processing Equipment	Interdependent	1
6251	Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	Interdependent	1
6252	Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment, including Parts and Accessories	Interdependent	1
6253	Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	Interdependent	1
6254	Retailers of Cameras and Photographic Equipment	Interdependent Partial Copyright	1
6293	Miscellaneous Retailers, including	Independent	0.05
	Retail Stores dealing in Books, Magazines and Stationery (Bookshops)	Interdependent	
	Retailers dealing in Antiques and Art	Interdependent	

Table 18: Partial Copyright Activities and Assigned Copyright Factors

JSIC Code	Description	WIPO Description	Copyright Factor
2211	Preparation and Spinning of Textile Fibers, Weaving of Textiles	Partial	0.005
2212	Finishing of Textile Printing	Partial	0.005
2221	Manufacture of Made-up Textile Articles	Partial	0.005
2222	Manufacturing of Carpets and Rugs	Partial	0.005
2229	Manufacture of Textiles (n.e.c)	Partial	0.005
2231	Manufacture of Wearing Apparel and Crocheted Goods	Partial	0.005
2234	Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	Partial	0.005
2235	Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	Partial	0.005
2236	Manufacture of Clothing (except Footwear and Fur Apparel) for Children	Partial	0.005
2237	Manufacture of Headwear	Partial	0.005
2238	Manufacture of Other Wearing Apparel (n.e.c)	Partial	0.005
2243	Manufacture of Luggage and Handbags	Partial	0.005
2244	Manufacture of Saddlery and Harnesses	Partial	0.005
2249	Other Dressing and Tanning of Leather, Manufacture of Luggage, Handbags, Saddlery, and Harnesses	Partial	0.005
2251	Manufacture of Boots and Shoes from Leather Fabrics and other Materials except Wood, Rubber and Plastic	Partial	0.005
2259	Manufacture of Footwear made of Rubber, Plastic and Other Materials (n.e.c)	Partial	0.005
2321	Manufacture of Wooden Furniture	Partial	0.05
2322	Manufacture of Metal Furniture	Partial	0.05
2323	Manufacture of Rattan (Wicker) Furniture	Partial	0.05
2329	Manufacture of Other Furniture	Partial	0.05
2719	Manufacture of Other Rubber Products	Partial	0.005
2721	Manufacture of Plastic Containers and Cups	Partial	0.005
2722	Manufacture of Plastic Dinner Ware and Table Ware	Partial	0.005
2724	Manufacture of Plastic Bathroom Fixtures	Partial	0.005
2729	Manufacture of Plastic Products (n.e.c)	Partial	0.005
2811	Manufacture of Glass	Partial	0.005
2812	Manufacture of Glass Products	Partial	0.005
2891	Manufacture of Non-Structural Ceramic Ware (China; Stone; Earthenware, etc.)	Partial	0.005
2904	Manufacture of Jewelry and Related Articles	Partial	0.25
3386	Manufacture of Watches and Clocks	Partial	0.25
2906	Manufacture of Sport Goods (including Footwear)	Partial	0.005
2907	Manufacture of Games and Toys	Partial	0.5
5452	Interior Decorating	Partial	0.02
5531	Flooring (Parquet) and Carpeting	Partial	0.02
8324	Engineering, Architectural and Technical (including Surveying)	Partial	0.5
9429	Libraries, Museums and Other Cultural Services	Partial	0.5
6161	Wholesale of Cotton, Textile Yarn and Fabric	Partial	0.05
6162	Wholesale of Clothing	Partial	0.05
6163	Wholesale of Footwear	Partial	0.05
6164	Wholesale of Leather and Leather Goods	Partial	0.05
6169	Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c)	Partial	0.05
6171	Wholesalers of Office Furniture and Equipment	Partial	0.05
6172	Wholesalers of Household Furniture and Equipment	Partial	0.05

Table 18: Partial Copyright Activities and Assigned Copyright Factors

JSIC Code	Description	WIPO Description	Copyright Factor
6173	Wholesalers of Furniture and Fittings	Partial	0.05
6221	Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	Partial	0.05
6222	Retail Stores dealing in Household Appliances (Electrical and Non-Electrical)	Partial	0.05
6223	Retail Stores dealing in Furniture	Partial	0.05
6224	Retail Stores dealing in Jewelry, Watches and Clocks	Partial	0.05
6225	Retail Stores dealing in Jewelry, Watches, Clocks and Miscellaneous	Partial	0.05
6231	Retail Stores dealing in Textiles, Wearing Apparel and other Personal Effects	Partial	0.05
6232	Retail Stores dealing in Footwear	Partial	0.05
6293	Miscellaneous Retailers, including		0.05
	Retail Stores dealing in Books, Magazines and Stationary (Bookshops)	Interdependent Copyright	
	Retailers dealing in Antiques and Art	Interdependent Copyright	
	Retail Stores dealing in Sports and Recreational Goods	Partial	

Table 19: Share of Recreation in Real Consumption Per Capita, 1990 to 2005

Year	Per Capita Consumption (1990 Prices)	Recreation Share
1990	7,616	
1991	6,080	1.3
1992	6,586	1.3
1993	6,805	0.9
1994	7,652	0.9
1995	7,793	0.8
1996	7,230	0.7
1997	9,076	0.7
1998	9,440	0.7
1999	9,396	0.7
2000	8,787	0.9
2001	8,550	0.7
2002	8,953	0.6
2003	8,758	0.4
2004	8,938	0.7
2005	9,321	0.6

Source: Jamaica Survey of Living Conditions, various years

Table 20: Non-Dedicated Support Activities and Related Copyright Factors

JSIC Code	Sector Description	Copyright Factor
5100-6200	Distributive Trades	0.057
7112	Public Passenger Transport by Road	0.057
7113	Other Passenger Transport by Road	0.057
7114	Freight Transport by Road	0.057
7116	Supporting Services to Land Transport	0.057
7121	Ocean and Coastal Water Transport	0.057
7123	Supporting Services to Water Transport	0.057
7131	Air Transport Carriers	0.057
7132	Supporting Services to Air Transport	0.057
7192	Storage and Warehousing	0.057
72000	Communication	0.057
83260	Other Business Services	0.057

4.3. Estimating Worker Earnings (w_N) in Light of the Self-Employed Earnings Adjustment Factor (ω_{se})

In light of the conditions in the copyright-based industries, the main focus of the estimation effort is the accurate estimation of w_N , taking into account the copyright factors estimated in Tables 14 to 18 and Table 20. STATIN has indicated that the self-employed are not fully captured in the data in Table 12, mainly because reliable information is not generally available from surveys on this group. Special surveys are needed for a fully reliable estimate. Nevertheless, information is available from Census 2001 and from several representative institutions in the copyright-based industries that can be used to specify a self-employed earnings adjustment factor (ω_{se}) as needed to reflect the role of the self-employed in the various copyright sectors. From the perspective of the internal structure of the data, the Census 2001 indicators are broadly applicable for comparisons if projected to the year 2005 using census survey data.

The self-employed shares for the copyright activities covered by the Census 2001 dataset are reported in Table 21. The data indicate a highly variable rate of self-employment in the copyright-based industries, as well as expected deviations of the income shares and the employment shares. The most important observation is in the core copyright activities, where the self-employed account for a significant share of several sub-sectors. They claim 55 percent of the earnings of museums and art galleries but only 9 percent of the employment, indicative of (i) high productivity, (ii) a dominant role in the art market of major artists running their own galleries and, perhaps most important, (iii) the fact that the majority of artists find that they must be employed elsewhere, practice art part-time, and report themselves as paid employees. Only the very successful artists can afford to be fully self-employed. The next highest share of self-employment income is 35 percent among the operators of photo studios, of whom 44 percent are self-employed. The self-employed include 35 percent of the authors, music composers and independent artists and, interestingly, they earn only 24 percent of the income. They also play a significant role in radio and TV

broadcasts, with 26 percent of the earnings and 14 percent of the jobs – an indication of relatively high productivity among the group. Other sectors with a significant presence of the self-employed in both employment and earnings are advertising and market research and dance studios.

In the interdependent copyright sectors, the self-employed have their highest impact in radio and TV rentals, where they have 27 percent of the earnings and 33 percent of the jobs, and in the manufacturing of TV transmitters and the like, where they have 25 percent of the earnings and a very high 50 percent rate of employment.

In the partial copyright sector, the self-employed account for 59 percent of the earnings and 48 percent of the employment in interior decoration; 15 percent of earnings and 21 percent of employment in the manufacture of women's clothing and, more generally, 70 percent of earnings and 50 percent of employment in manufacture of textiles, indicative of high productivity in self-employment; 47 percent of earnings and 23 percent of employment in the manufacture of made-up textiles; 60 percent of earnings and 67 percent of employment in the manufacture of certain leather products, such as sandals and shoes; 14 percent of earnings and 50 percent of employment in the manufacture of rattan furniture, which is indicative of relatively low productivity among the self-employed and, more generally, 46 percent of employment and 42 percent of employment in manufacture of wooden furniture; and 42 percent of earnings and 50 percent of employment in carpeting and installation of parquet floors. As is to be expected, similarly significant roles for the self-employed are found in the non-dedicated support activities of passenger transport.

When necessary to complement the data provided by STATIN in Table 12, the earnings adjustment factor of the relevant sub-sector is calculated in a simple manner. Let s be the share of the earnings of persons who are self-employed in the total of earnings of all earners (labor). First, the complement of s that is $1-s$ is calculated. Then, the reciprocal of this complement is computed, i.e., $(1/(1-s))$. This reciprocal is used as the adjustment factor.

In addition to the adjustment for self-employment, data from Census 2001 are also used to estimate earnings in cases where specific copyright sub-sectors have not been identified by STATIN's data in Table 12. This is mainly relevant to estimation for the interdependent, partial and non-dedicated copyright sectors. In such cases, data are also used from the Survey of Large Establishments to find an approximate average earnings growth factor to be used in projecting the 2001 estimates up to 2005. The source data for the specific earnings growth factors used are reported in Annex I. The Annex provides information on the rate of earnings growth by broad sector aggregates.

Table 21: Self-Employment in the Copyright Sectors of Jamaica, Census 2001

WIPO (2003) Classification	Copyright Sectors in Census 2001	Share of Self-Employed in Total Earnings	Share of Self-Employed in Total Employment
Core Copyright Sector	Advertising and Market Research	12%	14%
	Authors, Music Composers and Independent Artists	24%	35%
	Dance Studios	9%	15%
	Data Processing and Tabulating Services	1%	2%
	Manu Audio Video Records Tapes	0%	0%
	Medical Research Organizations	0%	0%
	Motion Picture Production	0%	0%
	Motion Picture Video Distribution	12%	36%
	Museums and Art Galleries	55%	9%
	Other Research	0%	0%
	Photo Studios	35%	44%
	Publishing, Print and Publish	6%	5%
	Radio TV Broadcast	26%	14%
	Standards and Industrial Research	0%	0%
Theater and Entertainment Services	0%	12%	
Interdependent Copyright Sector			

Here, the projections are based on the simple average rate of earnings growth between 2001 and 2005, implying an average earnings growth factor of the form

$$2. \quad g_c = (1+r)^4$$

where r is the rate of growth of earnings estimated from the Establishments Survey as reported in Annex I. The relevant rates are reported below (Table 22).

Estimated Worker Earnings, 2005

Following is the specific application of the adjustment factors in computing the estimates of worker earnings in the copyright sectors.

Table 21: Self-Employment in the Copyright Sectors of Jamaica, Census 2001

WIPO (2003) Classification	Copyright Sectors in Census 2001	Share of Self-Employed in Total Earnings	Share of Self-Employed in Total Employment
	Manufacture of Optical Instruments and Photo Equipment	0%	0%
	Manufacture of Certain Paper and Paper Products	0%	0%
	Manufacture of Computing Machinery/Computers	0%	0%
	Manufacture of TV Transmitters and Similar Products	25%	50%
	Rental of Radio and TV	27%	33%
	Rental and Lease of Data Processing Equipment/Computers	0%	0%
	Retail of Albums and Music Instruments	5%	14%
	Retail Calculators and Computers , etc	2%	8%
	Retail of Radios, TVs, Recording Equipment and Similar	0%	0%
	Miscellaneous Retailers	64%	73%
Partial Copyright Sector			
	Engineering, Architecture and Surveying	7%	11%
	Interior Decorating	59%	48%
	Manufacture of Boots from Fabrics	19%	41%
	Manufacture of Carpets and Rugs	0%	0%
	Manufacture of Children's Clothing	3%	4%
	Manufacture of Men's Clothing	9%	11%
	Manufacture of Women's Clothing	15%	21%
	Manufacture of Footwear from Other Materials	0%	0%
	Manufacture of Headwear	0%	0%
	Manufacture of Luggage and Handbags	0%	0%
	Manufacture of Made up Textiles	47%	23%
	Manufacture of Metal Furniture	12%	24%
	Manufacture of Other Leather Prods	60%	67%
	Manufacture of Other Wearing Apparel	8%	7%
	Manufacture of Rattan Furniture	14%	50%
	Manufacture of Textiles (n.e.c.)	70%	50%
	Manufacture of Wear Apparel and Crocheted works	19%	8%
	Manufacture of Wooden Furniture	46%	42%
	Manufacture of Chinaware, Stoneware and Earthenware	24%	25%
	Manufacture of Glass	16%	20%
	Manufacture of Glass Products	0%	0%
	Manufacture of Jewelry, Watches and Related Products	9%	41%
	Manufacture of Other Plastic Products	0%	3%
	Manufacture of Plastic Containers Cups	2%	5%
	Manufacture of Plastic Wares	0%	0%
	Parquet Floors and Carpeting	42%	53%
	Retail Stores dealing in Jewelry Watch Clocks	0%	2%
	Retail Stores Selling Textiles and Apparel	9%	12%
	Retail Stores dealing in Footwear	18%	18%
	Retail Stores dealing in Furniture	6%	4%
	Retail of Household Appliances	0%	4%

Table 21: Self-Employment in the Copyright Sectors of Jamaica, Census 2001

WIPO (2003) Classification	Copyright Sectors in Census 2001	Share of Self-Employed in Total Earnings	Share of Self-Employed in Total Employment
	Retail of Household Furnishings, Fittings and Carpets	0%	0%
	Wholesale of Furniture Fittings	0%	0%
	Wholesale of HH Furniture Equivalence	0%	0%
	Wholesale of Cotton Textiles and Fabrics	9%	11%
	Wholesale and Retail of Textiles and Apparel (n.e.c)	0%	4%
	Wholesale of Clothing	11%	40%
	Wholesale of Footwear	100%	100%
	Wholesale of Office Furniture and Equipment	0%	0%
	Miscellaneous Retailers	64%	73%
Non-Dedicated Support Sectors			
	Air Transport	0%	0%
	Freight Transport	32%	25%
	Private Passenger Road Transport	68%	67%
	Public Passenger Transport by Road	19%	19%
	Storage and Communication	0%	0%
	Support of Water Transportation	0%	2%
	Support of Air Transport	0%	0%
	Support of Road Transport	11%	14%
	Water Transport	0%	2%
Other	Other Industries	14%	25%
All		18%	28%

4.4. Core Copyright

4.4.1. Press and Literature

STATIN estimates of worker earnings for press and literature are used with adjustments only to allow for the self-employed (Table 22). Such adjustments are guided by the estimates of the share of self-employed reported in Census 2001. These are provided in three categories for printing and publishing: publishing of newspapers, publishing of magazines and books, and printing not connected to publishing. Here, the applicable self-employment adjustment factor is 1.06, implied by data indicating that the self-employed account for only 6 percent of worker earnings in the sector (Table 20). In addition, for advertising materials such as billboards, the Census data indicate that approximately 12 percent of earnings come from the self-employed, implying an adjustment factor of 1.14. On this basis, it is estimated that the gross worker earnings of press and literature was J\$1798 million, of which publishing of newspapers accounted for J\$972 million, publishing of magazines and books J\$63.7 million, general printing of other copyrighted materials, J\$595 million, and advertising materials such as billboards J\$167 million.

4.4.2. Music and Theatrical Productions

STATIN GDP estimates of worker earnings in this category cover only the small component of formal manufacturing of recorded music. Data from Census 2001 allow adjustment of the wage estimates to cover production by operators using networks of home computers, as well as performers who do not report themselves as manufacturers but who nevertheless use home computers to produce and replicate music and sell it on independent labels. In addition, the Census data allow coverage of other operations in theater and dance studios and, most important, coverage of the general class of authors, music composers, and independent artistes and performers. From the data in Annex II, the applicable rate of earnings growth is

7 percent, which is the rate applicable to non-metallic manufacturing. We assume that the same rate applies to all other segments of music, theatrical productions, and opera. Using the implied earnings inflation factor of 1.31 for 2001-2005, the projected worker earnings of music, theatrical productions, and opera are reported in Table 22 and estimated at J\$673.4 million.

Estimates of all authors, music composers, and independent artistes from Census 2001 are J\$565 million. The category includes the set of art painters, sculptors, and other own-account artists. Using the 0.83 allocation factor estimated from the Mexican data in Table 15, it is estimated that the output of authors, music composers, and independent artistes is J\$469 million. In addition, theater and related entertainment services contribute J\$93 million, dance studios J\$81 million, and the manufacture of audio and video records and other recorded (taped) music J\$31 million.

4.4.3. Motion Picture and Video

When adjusted for the self-employed, the aggregate STATIN estimates for the motion picture and video sector (Table 12) approximate the projected estimates from Census 2001. However, the Census data can be generated to separate the estimates of motion picture production from those for motion picture and video distribution, and so are the recommended bases of estimation in this study. Using the same wage inflation factor of 1.31 as above, the estimated worker earnings for motion picture and video is J\$99.8 million, of which motion picture production contributes J\$25 million and motion picture and video distribution contributes J\$61.3 million.

4.4.4. Radio and Television

In Table 12, the STATIN estimate for radio and television broadcasting is J\$919 million. After adjusting for the self-employment earnings rate of 26 percent or a self-employment adjustment factor of 1.35, the estimated worker earnings are J\$1,242 million. Using the methodology set out earlier, the cable TV value added is estimated at 6 percent of the value added in communications or J\$459 million. Here, no adjustment is required for self-employment, since there are no sole-proprietors without employees in the cable distribution business. The overall estimate for the radio and television segment of the core copyright sector is J\$1,655 million.

4.4.5. Photography

STATIN estimates of worker earnings in photography (Table 12) also exclude the self-employed. However, as indicated in Table 21, the self-employed without employees account for about 35 percent of the earnings in the sector. For this reason, we project the data in Census 2001 up to 2005 as the basis for estimating value added in this segment of the copyright sector. These estimates already account for the self-employed. Specifically, it is estimated that the total worker earnings in photographic studios and related agencies are J\$246.3 million (Table 22).

4.4.6. Software and Databases

Estimates for core software and databases are projected directly from Census 2001 under JSIC code 8323, since no data are provided for this in Table 12. The estimates cover data processing and related production and publishing of information. In this case, the applicable earnings growth rate is 4 percent per annum for the JSIC 83 classification (Annex II). Thus, the implied earnings growth factor of 1.17 is applied and the estimates indicate worker earnings of J\$386.1 million in 2005 (Table 22).

4.4.7. Graphic Arts

One component of worker earnings in graphic arts, museums and art galleries, is projected from Census 2001 data, using the earnings growth factor of 1.31 implied by the same earnings growth factor that is applicable to music, theatrical productions, and opera. The estimates indicate that worker earnings in this category are J\$53.8 million. The other segment of the group covers art painters, sculptors, and other own-account artists. For these, the estimates are generated by applying the 0.17 allocation factor to estimates of all authors, music composers, and independent artistes from Census 2001, based on the proportions extracted from the Mexican data in Table 15. On this basis, it is estimated that the output of art painters, sculptors, and other own-account artists is J\$95.8 million (Table 22).

4.4.8. Advertising Services

With respect to the advertising agencies, STATIN provides reliable data that cover the formal and large establishments (Table 12). Data from Census 2001 indicate that 12 percent of the earnings could be expected to come from the self-employed. Thus, a self-employment adjustment factor of 1.14 is applied and yields estimated worker earnings of J\$371.6 million (Table 22).

4.4.9. Copyright Collective Management Societies

The estimates for the collective management societies were obtained by direct interviews with the main organizations. Five organizations provided data indicating total worker earnings of J\$15.3 million in 2005.

Table 22: Adjusted Worker Earnings for Core Copyright Sector, 2005							
JSIC Code	Copyright Category	Copyright Factor	Wages and Salaries Reported by STATIN	Self-Employment Adjustment factor	Applicable Earnings Growth rate	Earnings Inflation Factor	Adjusted Wages and Salaries
	a. Press and Literature						1,797.90
24212	Publishing of Newspapers	1	913.9	1.06	0	1.00	972.2
24214	Publishing of Magazines & Books	1	59.9	1.06	0	1.00	63.7
24220	Printing not connected to Publishing	1	559.5	1.06	0	1.00	595.2
83252	Advertising Materials such as Billboards	1	146.7	1.14	0	1.00	166.7
	b. Music, Theatrical Productions, Opera					1.00	0.0
3373	Manufacture of Audio and Video Records and Tapes/Recorded Music	1	23.7	1.00	0.07	1.31	31.1
9415	Authors, Music Composers and Independent Artistes	1	357.7	1.00	0.07	1.31	468.9
9498	Dance Studios	1	61.4	1.00	0.07	1.31	80.5
9414	Theater and Related Entertainment Services	1	70.9	1.00	0.07	1.31	92.9
	c. Motion Picture and Video Production, Distribution and Projection					1.00	0.0
9411	Motion Picture Production	1	18.9	1.00	0.07	1.31	24.8
9412	Motion Picture and Video Distribution	1	46.8	1.00	0.07	1.31	61.3
	d. Radio and Television Broadcasting					1.00	0.0
94130	General (National and other) Radio and TV Broadcasting, including Independent Producers, Satellite TV and other Services	1	918.7	1.35	0	1.00	1241.5
72000	Cable Television	0.25	413.8	1.00	0	1.00	413.8

Table 22: Adjusted Worker Earnings for Core Copyright Sector, 2005

JSIC Code	Copyright Category	Copyright Factor	Wages and Salaries Reported by STATIN	Self-Employment Adjustment factor	Applicable Earnings Growth rate	Earnings Inflation Factor	Adjusted Wages and Salaries
9562	e. Photography			1.00		1.00	0.0
9562	Photographic Studios, Agencies, etc.	1	188	1.00	0.07	1.31	246.4
	f. Software and Databases					1.00	0.0
8323	Data Processing and Related Publishing	1	330	1.00	0.04	1.17	386.1
	g. Graphic Arts					1.00	0.0
9422	Museums and Art Galleries	1	41.1	1.00	0.07	1.31	53.9
9415	Art Painters, Sculptors and other Own-Account Artists	0.17	73.3	1.00	0.07	1.31	96.1
	h. Advertising Services					1.00	0.0
83251	Advertising Agencies	1	327	1.14	0	1.00	371.6
	i. Copyright Collective Management					1.00	0.0
9	Collective Management Societies	1	15.3	1.00	0	1.00	15.3

4.5. Worker Earnings in Interdependent Copyright

The estimates of worker earnings for the interdependent copyright sector are based on projections from Census 2001 and reported in Table 23. The earnings growth factors are based on indications of sector-specific earnings growth rates of 4 percent, 7 percent, or 16 percent as drawn from Annex I. The estimates are summarized under two broad headings – the core interdependent copyright sector and the partial interdependent copyright sector.

Projections from Census 2001 indicate a small core interdependent copyright sector of J\$41.8 million, with a relatively minor role for manufacture of TV and radio transmitters, receivers, apparatus for recording sound or video signals and for line telephony and line telegraphy, with worker earnings of only J\$4.53 million (earnings growth rate 16 percent) and manufacture of computers and equipment where worker earnings are J\$37.3 million (earnings growth rate 16 percent).

The partial interdependent copyright sector yields substantially higher worker earnings of J\$1,173.4 million, of which the main contributor is wholesale and retail of the interdependent copyright industries (J\$1,098.8 million). In this group, the estimate of J\$455.5 million for other wholesale and retail is projected from Census 2001 data for miscellaneous distributive trades, after applying the copyright factor of 0.05 adapted from the Hungarian study. No self-employment adjustment is needed, since the Census 2001 imputations cover all employment status. In addition, the estimates reveal: J\$534.8 million in the subgroups of retail stores dealing in calculators, computers, typewriters and other office equipment, including parts and

accessories; J\$92.5 million in retail stores dealing in radios, television sets and sound reproducing and recording equipment (including parts and accessories); and J\$16 million in retail stores dealing in musical instruments, records, record albums and tapes (earnings growth rate 4 percent).

4.6. Worker Earnings in the Partial Copyright Sector

Estimates for the partial copyright sector are also reported in Table 23, again in light of copyright factors adapted from the Hungarian study and reflected in the Mexican study. Under manufacture of certain apparel, textiles and footwear and related items, worker earnings amounted to J\$11.6 million; under manufacture of furniture, J\$54.4 million, reflecting widespread decline in the sector manifested in a reduction in earnings at a rate of 5 percent per annum since 2001, forged by the intensifying competitive challenges faced by a segment of the industry with 46 percent of the earnings generated by the self-employed in a context of rapidly-changing global mechanical, design, and digital craft technologies; under manufacture of jewelry and watches, J\$19.4 million; under engineering, architecture and surveying, J\$421.1 million; and under distributive trades for the partial copyright industries, J\$526 million. In the latter case, the substantial volume is accounted for mainly by the component estimated by applying the copyright factor of 0.05 to the Census 2001 estimates for the group of miscellaneous retailers, including retail stores dealing in sports and recreational goods.

4.7. Worker Earnings in the Non-Dedicated Support Industries

In the non-dedicated support industries, the general distributive trades are the main contributors of worker earnings, amounting to J\$1875.4 million. These are estimated by taking 0.05 percent of the industry as measured by STATIN in Table 12, then subtracting the value of the industry that is accounted for by the miscellaneous trades of the independent copyright industries and the partial copyright industries in order to avoid any possible double counting, and then adjusting for the 64 percent contribution to earnings of self-employed persons in the sector. The second substantial component of the non-dedicated support industries is projected directly from Census 2001 and comprises the set of general transportation, storage, communications and business services, which accounts for J\$1683.5 million, and which is dominated by three supporting subgroups – private passenger transport by road, J\$268.3 million; air transport, J\$556.8 million, and communication, J\$427.9 million. Projections are based on the industry-specific earnings growth factors reported in Table 23.

Table 23: Estimated Worker Earnings for Interdependent, Partial and Non-Dedicated Support Copyright Sectors, 2005							
JSIC Code	Interdependent	Copyright Factor	Wages and Salaries	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries
	Core Interdependent						41.83
3372	Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	1	2.5	1.0	0.16	1.81	4.53
3350	Manufacture of Computers and Equipment	1	20.6	1.0	0.16	1.81	37.30
	Partial Interdependent						1,173.49
3385	Manufacture of Optical Instruments and Photographic Equipment	1	9.5	1.0	0.16	1.81	17.20
2419	Manufacture of Certain Articles of Paper and Paperboard	1	44.3	1.0	0.01	1.04	46.10
8334	Rental of Radio, Television	1	7.8	1.0	0.04	1.17	9.12
8335	Rental and Leasing of Data Processing Equipment	1	1.9	1.0	0.04	1.17	2.22
	Wholesale and Retail of the Interdependent Copyright Industries, of which:						1,098.84
6251	Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	1	70.6	1.0	0.07	1.31	92.54
6252	Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment, including Parts and Accessories	1	408.0	1.0	0.07	1.31	534.80
6253	Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	1	12.2	1.0	0.07	1.31	15.99
6293	Other Miscellaneous Wholesalers and Retailers, including	0.05	347.5	1.0	0.07	1.31	455.50
	Retail Stores dealing in Books, Magazines and Stationery (Bookshops)						
	Retailers Dealing in Antiques and Art						
	Partial Copyright Sectors						
	Manufacture of Certain Apparel, Textiles and Footwear, and Related Items		7.47				11.57
2221	Manufacture of Made-up Textile Articles	0.005	0.4	1.0	0.06	1.26	0.51
2222	Manufacturing of Carpets and Rugs	0.005	0.04	1.0	0.06	1.26	0.05
2229	Manufacture of Textiles (n.e.c)	0.005	0.2	1.0	0.06	1.26	0.19
2231	Manufacture of Wearing Apparel and Crocheted Goods	0.005	0.8	1.0	0.12	1.57	1.31
2234	Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	0.005	1.4	1.0	0.12	1.57	2.18

Table 23: Estimated Worker Earnings for Interdependent, Partial and Non-Dedicated Support Copyright Sectors, 2005							
JSIC Code	Interdependent	Copyright Factor	Wages and Salaries	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries
2235	Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	0.005	2.0	1.0	0.12	1.57	3.22
2236	Manufacture of Clothing (except Footwear and Fur Apparel) for Children	0.005	0.70	1.0	0.12	1.57	1.70
2237	Manufacture of Headgear	0.005	0.02	1.0	0.12	1.57	0.03
2238	Manufacture of Other Wearing Apparel (n.e.c)	0.005	1.02	1.0	0.12	1.57	1.60
2243	Manufacture of Luggage and Handbags	0.005	0.01	1.0	0.12	1.57	0.01
2251	Manufacture of Boots and Shoes from Leather Fabrics and other Materials except Wood, Rubber and Plastic	0.005	0.73	1.0	0.12	1.57	1.14
2249	Manufacture of Other Leather Products	0.005	0.05	1.0	0.12	1.57	0.07
2259	Manufacture of Footwear made of Rubber, Plastic and Other Materials (n.e.c)	0.005	0.03	1.0	0.12	1.57	0.05
	Manufacture of Furniture		66.77				54.38
2321	Manufacture of Wooden Furniture	0.05	65.0	1.0	(0.05)	0.81	52.94
2322	Manufacture of Metal Furniture	0.05	1.55	1.0	(0.05)	0.81	1.26
2323	Manufacture of Rattan (Wicker) Furniture	0.05	0.2	1.0	(0.05)	0.81	0.18
	Manufacture of Household Goods, China and Glass		0.96				1.45
2721	Manufacture of Plastic Containers and Cups	0.005	0.49	1.0	0.11	1.52	0.74
2722	Manufacture of Plastic Dinner Ware and Table Ware	0.005	0.02	1.0	0.11	1.52	0.03
2729	Manufacture of Plastic Products (n.e.c)	0.005	0.28	1.0	0.11	1.52	0.43
2811	Manufacture of Glass	0.005	0.06	1.0	0.09	1.41	0.08
2812	Manufacture of Glass Products	0.005	0.02	1.0	0.09	1.41	0.03
2891	Manufacture of Non-Structural Ceramic Ware (China; Stone; Earthenware, etc.)	0.005	0.10	1.0	0.10	1.46	0.14
	Manufacture of Jewelry, Watches and Related Items		14.43				19.37
2904	Manufacture of Jewelry and Related Articles	0.25	13.5	1.0	0.07	1.31	17.70
3386	Manufacture of Watches and Clocks	0.25	0.93	1.0	0.16	1.81	1.67
	Interior Decorating and Carpets		1.59				2.17
5452	Interior Decorating	0.02	1.1	1.0	0.08	1.36	1.43
5531	Flooring (Parquet) and Carpeting	0.02	0.54	1.0	0.08	1.36	0.73
	Engineering, Architectural and Technical (including Surveying)		360.0				421.1
8324	Engineering, Architectural and Technical (including Surveying)	0.5	360.0	1.0	0.04	1.17	421.15

Table 23: Estimated Worker Earnings for Interdependent, Partial and Non-Dedicated Support Copyright Sectors, 2005							
JSIC Code	Interdependent	Copyright Factor	Wages and Salaries	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries
	Wholesale and Retail of Partial Copyright Industries		396.3				524.6
6161	Wholesale of Cotton, Textile Yarn and Fabric	0.05	1.1	1.0	0.21	2.14	2.25
6162	Wholesale of Clothing	0.05	0.35	1.0	0.21	2.14	0.75
6163	Wholesale of Footwear	0.05	0.38	1.0	0.21	2.14	0.81
6169	Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c)	0.05	2.8	1.0	0.21	2.14	5.69
6171	Wholesalers of Office Furniture and Equipment	0.05	0.6	1.0	0.21	2.14	1.20
6172	Wholesalers of Household Furniture and Equipment	0.05	0.9	1.0	0.21	2.14	1.90
6173	Wholesalers of Furniture and Fittings	0.05	0.2	1.0	0.21	2.14	0.42
6221	Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	0.05	5.2	1.0	0.07	1.31	6.82
6222	Retail Stores dealing in Household Appliances (Electrical and Non-Electrical)	0.05	5.3	1.0	0.07	1.31	6.88
6223	Retail Stores dealing in Furniture	0.05	11.1	1.0	0.07	1.31	14.55
6224	Retail Stores dealing in Jewelry, Watches and Clocks	0.05	4.3	1.0	0.07	1.31	5.57
6231	Retail stores dealing in Textiles, Wearing Apparel and Other Personal Effects	0.05	15.6	1.0	0.07	1.31	20.38
6231	Retail Stores dealing in Footwear	0.05	1.3	1.0	0.07	1.31	1.70
6293	Miscellaneous Retailers, including Retail Stores dealing in Sports and Recreational Goods	0.05	347.5	1.0	0.07	1.31	455.50
	Non-Dedicated Copyright						
	General Distributive Trades		675.1				1,875.4
6100-6200	Distributive Trades	0.05	675.1	2.8	-	1.0	1,875.38
	General Transportation, Storage, Communications and Business Services		1,434.3				1,683.5
7112	Public Passenger Transport by Road	0.057	71.3	1.0	0.08	1.4	96.93
7113	Other Passenger Transport by Road	0.057	197.2	1.0	0.08	1.4	268.32
7114	Freight Transport by Road	0.057	62.1	1.0	0.08	1.4	84.53
7116	Supporting Services to Land Transport	0.057	8.6	1.0	0.08	1.4	11.71
7121	Ocean and Coastal Water Transport	0.057	15.7	1.0	0.11	1.5	23.86
7123	Supporting Services to Water Transport	0.057	19.8	1.0	0.11	1.5	30.03
7131	Air Transport Carriers	0.057	476.0	1.0	0.04	1.2	556.79
7132	Supporting Services to Air Transport	0.057	35.9	1.0	0.04	1.2	42.01
7192	Storage and Warehousing	0.057	6.5	1.0	0.08	1.4	8.84

Table 23: Estimated Worker Earnings for Interdependent, Partial and Non-Dedicated Support Copyright Sectors, 2005

JSIC Code	Interdependent	Copyright Factor	Wages and Salaries	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries
72000	Communication	0.057	427.9	1.0	-	1.0	427.90
83260	Other Business Services; Accounts, Audit and Bookkeeping and Legal	0.057	113.3	1.0	0.04	1.2	132.56

4.8. Estimating the Earnings Multipliers (m_s)

In the absence of a comprehensive database, estimates of the GDP and employment contributions require estimation of the copyright sub-sector-specific earnings multipliers, m_s , based on the share of (labor) earnings in total income (earnings, net taxes, operating surplus, and depreciation) as reported by STATIN.²⁰ These multipliers are reported in Table 24.²¹ In addition to the 4-digit sectors covered in Table 12, Table 24 also includes estimates of the multipliers for the partial copyright sectors. These have been calculated using unpublished data at the 2-digit or 3-digit level provided by STATIN.

No data on depreciation, taxes, or operating surplus are available to make adjustments that reflect the self-employed. Analysis is based on the assumption that the self-employed are involved in labor-intensive operations because of the greater skill-intensity of the technologies they utilize. So their share of earnings is expected to be higher. This implies somewhat lower earnings multipliers than those implied by the STATIN data, and the estimates might properly be interpreted as upper limits. There are two counter arguments that are perhaps compelling and indicate that the wage adjustments as well as the multipliers for the self-employed are low; so that the overall estimates are also relatively low. First, recent estimates place the self-employed and the broader informal economy not captured by the STATIN estimates at near 40 percent of GDP (Robles, Hernandez, De la Roca, Webber and Torero, 2002). Second, the wage share (in this case, the portion of value added assigned to payment for management and labor) is likely to be smaller for the self-employed than in the case of the sectors covered by STATIN, partly because of the orientation to smooth investment (rather than consumption) to facilitate accumulation of capacity and ensure viability, and partly because the relative share of investment in domestic real capital forms to complement necessary imports is usually severely underestimated. In the absence of survey data, it is difficult to tell, and the method adopted is simply to use the STATIN ratios to determine the multipliers. In light of these considerations, the broad earnings multipliers associated with the JSIC Codes for the copyright sectors used to show the contributions of various copyright sectors to the GDP are reported in Table 24.

²⁰ Denote the earnings share as W_s . Then the estimated multiplier is simply $1/W_s$.

²¹ Access to details about a wider range of sectors than is available in Table 12 would lead to more accurate estimates.

JSIC Code	Copyright Sector Description	Multipliers (m_x)	Other Sectors to Which Applied
24212	Publishing of Newspapers	1.82	
24214	Publishing of Magazines and Books	1.64	
24220	Printing unconnected to Publishing	1.54	
83252	Advertising Materials such as Billboards	1.79	
33731	Manufacture of Records	2.77	
			Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy
			Manufacture of Computers and Equipment
			Manufacture of Optical Instruments and Photographic Equipment
			Manufacture of Certain Articles of Paper and Paperboard
			Manufacture of Certain Apparel, Textiles and Footwear, and Related Items
			Manufacture of Furniture
			Manufacture of Household Goods, China and Glass
			Manufacture of Jewelry, Watches and Related
6100-6200	Distributive Trades	3.79	
72000	Communication (Cable)	4.25	Cable Television
83000	Rental of Other Machinery and Equipment	3.35	
			Rental of Radio, Television
			Rental and Leasing of Data Processing Equipment
83251	Advertising Agencies	1.89	
83252	Advertising Services (e.g. Billboards)	1.79	
83260	Other Business Services	1.68	
			Copyright Collective Management Societies
			Interior Decorating
			Flooring (Parquet) and Carpeting
			Engineering, Architectural and Technical (including Surveying)
			Other Business Services, Accounts, Audit and Bookkeeping and Legal
94110 & 94120	Motion Picture and Video Production, Distribution and Projection	1.58	
94130	Radio and Television Broadcasting	1.46	
94990b	Other Amusement and Recreation etc.	1.33	
			Authors, Music Composers, Independent Artistes
			Dance Studios
			Theater and Related Entertainment Services
95620	Photographic Studios	1.59	
			Museums and Art Galleries
			Art Painters, Sculptors and Other Own-Account Artists
221-223	Textiles and Wearing Apparel	1.47	Preparation and Spinning of Textile Fibers, Weaving of Textiles; Finishing of Textile Printing, etc.; Manufacture of Made-up Textile Articles (except Apparel); Textiles n.e.c. Knitted and Crocheted Goods; Clothing (except Footwear and Fur Apparel) for Men and Boys; f Clothing for Women and Girls; Clothing for Children; Headgear, Other Wearing Apparel.

224-225	Leather and Leather Products, Footwear	1.44	Luggage and Handbags; Saddlery and Harnessing; Other Dressing and Tanning of Leather, Luggage, etc.; Boots and Shoes from Leather, Fabrics, except Wood, etc.; Footwear made of Rubber, Plastic and Other Materials
231-232	Furniture and Fixtures, Wood, Wood and Cork Products	2.04	Manufacture of Wooden Furniture; Metal Furniture; Rattan (Wicker) Furniture.
25&27	Chemicals, Chemical Products, Rubber and Plastic Products (including Lube Oils and Greases)	3.03	Manufacture of Other Rubber Products; Plastic Containers and Cups; Plastic Dinnerware, Tableware and Kitchenware; Plastic Bathroom Fixtures; Plastic Products n.e.c.
28	Non-metallic Mineral Products (excluding Petroleum and Coal Products)	3.12	Manufacture of Glass; Glass Products; Non-Structural Ceramic Ware.
29; 3386	Other Manufacturing	1.62	Manufacture of Jewelry and Related Articles; Watches and Clocks; Sports Goods; Games and Toys.
7000-7191	Transportation	1.93	Air, Land and Sea Transport.
7192	Storage and Warehousing	3.32	

4.9. Estimating Employment Contribution

Equation (1) also provides a reliable indirect method of estimating employment in copyright once data on the wage rate is available. Specifically, employment by sub-sector is estimated using the formula:

$$3. \quad N = (f_{cs} \omega_{se} wN) / w$$

where the variables are defined as before and the sector's subscripts are left out because they are obvious. The right-hand side of (3) divides the estimated annual worker earnings of the sub-sector in (1) by the estimated annual earnings per worker in the sector.

Basic estimates of the average earnings per worker (w) are available from STATIN's Survey of Large Establishments and its various complementary sources and reported in Annex I. Since the estimates are for large establishments, there is a significant possibility that they deviate significantly from the average when the self-employed are taken into account. For this reason, estimates of the ratio of the average earnings of all workers and the average of paid employees are computed from Census 2001 and used to rescale (multiply) the STATIN average for large establishments. The result is an approximation of the average for all employees, which can be used to estimate the level of employment, using (3). It is worth observing that, when based solely on the unadjusted STATIN averages provided in Annex I, the estimates of all employment in the copyright sector are approximately the same as those computed using the adjusted wage. However, the sector estimates vary substantially. We use the adjusted sectors estimates in this study because they provide a better basis for making adjustments to the sector-specific employment data during the process of dialogue with stakeholders, which data yield the final estimates reported in the study.

As part of the assessment of employment impact, a Becker-Chiswick-Mincer earnings function (wage curve) is estimated, based on data in Census 2001. The actual specification used is also an inverse labor supply function, in that it explains the log of annual earnings in terms of the following variables: (i) personal human capital assets indicated by years of education – a categorical indicator of training for the job one holds and a potential experience quadratic; (ii) labor supply as measured by hours worked per week and weeks worked per year; (iii) a technology of production proxy in the form of a quadratic on the size of the firm in which one is employed; (iv) social factors that influence individual outcomes – an indicator of positive externalities in the mean years of education in the parish of residence and an inhibitor of factor

mobility in the average productivity of the self-employed in the parish of residence; and (v) a correction for selection bias in the form of an (Inverse Mills Ratio) indicator of the observed probability of employment in the copyright sector (labeled a copyright λ).

In addition, experimentation revealed that the usual quarter of birth ability indicator is a very poor instrument to address the endogeneity of education choices. So it is simply included as an explanatory variable in its own right, with standard least-squares applied in the estimation process. In addition, as indicated above, coefficient estimates are also used to determine whether the marginal product of labor diverges from the going wage rate – a result one expects if significant education externalities exist and there is a binding sociological floor that blocks downward adjustments in the wage. In the presence of that divergence, the quantity of the heterogeneous labor supply cannot be estimated independently of the wage, and the claims data in Table 12 can be used directly to estimate average partial productivities.

5. The Contribution of Copyright-Based Industries to GDP

In general, it is estimated that the copyright sector contributes about 4.8 percent to the GDP of Jamaica (J\$605,030 million). The main contributions come from the core copyright sector, with about 1.7 percent, and the non-dedicated copyright support sectors, with a share of 1.9 percent. The interdependent and partial copyright sector jointly contribute about 1.2 percent. A general lesson from the evidence is that the segments supported by government tend to do substantially better than those that are neglected. In terms of the internal structure of the copyright sector GDP, core copyright contributes 35.7 percent, non-dedicated support contributes 39.0 percent, and interdependent and partial jointly contribute 25.3 percent. The estimates are broadly consistent with the overall structure of the GDP in which the distributive trades and transport, storage and communications jointly contribute about 36 percent to the GDP of Jamaica (Table 27). The relatively high share of non-dedicated support is related to the relatively intensive use of these services in activities such as music, amusement and entertainment, and radio and television coverage.

5.1. Contribution of Core Copyright Industries

Table 25 reports that the contribution of the broad core copyright sectors to GDP is equal to J\$10,363.8 million, equivalent to US\$165 million or 1.7 percent of Jamaica's GDP. Annex II provides details that include the applicable multipliers (labor productivities) used to impute the distribution of income as well as the assigned copyright factors. The three main contributors are radio and television broadcasting, which accounts for J\$3578 million (US\$57.3 million) or 12.3 percent of the total copyright sector; press and literature, which accounts for J\$3090.8 million (US\$49.5 million) or 10.6 percent; and music and theatrical productions, which accounts for J\$1263.5 million (US\$20.2 million) or 4.34 percent. These estimates highlight the importance of distinguishing turnover (sales) and net income and of examining the details that differentiate sectors supported by government policy from those that are not. The radio and television broadcasting and press and literature segments receive substantial policy support from government, including direct government investment, targeted education and training, and other types of preferential tax benefits;²² music and theatrical productions do not receive comparable support. Further, given its international reputation, it is often thought that the music industry contributes substantially more to the economy than indicated by the estimates. However, these claims are perhaps applicable less to value added and more to the gross sales of the broadly-defined industry, which approximate US\$49 million, with US\$32 million coming from the music industry itself (Table 26). Even more significantly, the claims may be applicable to gross international sales that do not accrue to the local economy and could not be estimated in this study because of lack of suitable data.

5.2. Contribution of Interdependent Copyright Industries

Table 25 also reports summarily that the contribution of interdependent copyright activity to GDP in 2005 amounted to J\$4,495.2 million (US\$71.9 million) or 0.74 percent of GDP, with details again reported in Annex II. These activities also contribute 15.5 percent of the copyright GDP. The majority of this contribution, J\$4,166.3 million, comes from wholesale and retail of the interdependent copyright industries. Only about J\$115.8 million comes from the manufacture of TV and radio transmitters, receivers, apparatus for recording sound or video signals and the like, and about J\$127.6 million from manufacture of certain articles of paper. The results reflect both the low level of development of manufacturing activity in Jamaica as well as the general tendency for the economy to develop as a service sector that can exploit available tacit knowledge in the pursuit of market opportunity.

²² For example, cable TV is part of the communication sector, which benefits from J\$300.5 million of subsidies. No similar benefits go to the dynamic creative sectors of music and theater, which thrive by using and codifying domestic tacit knowledge.

5.3. Contribution of Partial Copyright Industries

Partial copyright contributed approximately J\$2,858.53 million (US\$45.7 million) or 0.47 percent to the GDP of Jamaica (Table 25). This is about 9.8 percent of the GDP of the copyright sectors. In this group, the main contribution again comes from wholesale and retail of partial copyright industries (J\$1,989.2 million or 6.8 percent of copyright GDP) but a substantial contribution was also made by the services of engineering, architecture and surveying, with J\$705.9 million or 2.43 percent of copyright GDP. The contribution of manufacture of furniture (J\$110.8 million) was very moderate, reflecting the recent decline of an industry that was once a very substantial contributor to the economy and to creative (and artistic) manufacturing. In many ways, this sub-sector epitomizes the fate of sectors that receive major government stimulus to develop as import-dependent and import-substitution activities while neglecting the critical contribution of the segment that depends on domestic tacit knowledge, craft skills, and other related domestic capital to survive and grow. In the context of globalization, the import-dependent component has died out because of lack of adequate capacity to redefine and develop its comparative advantages and, in the absence of adequate public fiscal measures (taxation and expenditure), education, training, and related technical support policy (support resources and entrepreneurship to upgrade the well-defined comparative advantage contributed by abundant tacit knowledge), the domestic capital-intensive component has survived but has generally stagnated.

5.4. Contribution of the Non-Dedicated Copyright Support Activities

It is estimated that the non-dedicated activities supporting the copyright sector contributed J\$11,328.9 million (US\$181.4 million), which is 39.0 percent of copyright GDP and about 1.9 percent of the national GDP (Table 25). Of this, the general distributive trades contributed about J\$7,110.6 million and general transportation, storage, communications and business services contributed about J\$4,218.2 million; communications (J\$1,820.6 million); air transport (J\$1,072.4 million), and private passenger transportation (J\$516.8 million) were the main contributors in this group (See Annex II).

5.5. General Sector Contribution to GDP

The data in Table 27 compare the contribution of copyright to that of other sectors. Copyright contributed more than electricity and water (4.1 percent) and almost as much as agriculture, forestry and fishing (5.2 percent) and real estate and business services (5.2 percent). These are just below the 5.8 percent contributed by mining and quarrying and almost half of the contribution of construction and installation (10.6 percent). As a general rule, many important elements of the copyright sector receive much less policy support than all of these sectors. The main comparison from a policy perspective relates to how the output of the sector rewards the economy for the claims paid to the factors of production utilized. Comparisons are provided in Section VIII, which provides the general policy implications of the estimates provided.

One striking aspect of the estimates of the contribution to GDP is the generally high share of distributive trades relative to other production activities. For the economy as a whole, these activities account for 21 percent of GDP, by far the largest share by any sector. In the copyright sectors, the share is even higher, accounting for most of the interdependent, partial and non-dedicated support activities. This can be explained in part by the high share of copyright-related imports in domestic consumption and the high share of imported inputs in domestic production in a context where the production structure is still narrowly focused on a few traditional exports and the potential for capital production of the copyright sector and others is still heavily underexploited. One would normally expect that a natural consequence of this is a net deficit on the two key external balances, trade and payments. However, adequate data on international trade by the copyright sector or on the import content of copyright consumption or production are not available to provide specific estimates of the significance of this factor.

Table 25: Contribution of Copyright Sectors to GDP, 2005

	Wages and Salaries (J\$ million)	Compensation for Social Security (J\$ million)	Indirect Taxes (J\$ million)	Depreciation (J\$ million)	Operating Surplus (J\$ million)	Contribution to GDP (J\$ million)	Share of Copyright GDP	Share of GDP
Core Copyright Sector								
a. Press and Literature	1,797.9	129.9	107.5	176.7	878.9	3,090.8	10.6%	0.51%
b. Music, Theatrical Productions, Opera	918.33	59.15	62.91	100.78	122.31	1,263.5	4.34%	0.27%
c. Motion Picture and Video Production, Distribution and Projection	118.96	10.33	7.21	13.67	38.07	188.4	0.6%	0.03%
d. Radio and Television Broadcasting	1,655.32	217.11	96.42	615.64	991.56	3,578.0	12.3%	0.59%
e. Photography	340.40	4.14	0.64	3.50	193.60	542.3	1.9%	0.09%
f. Software and Databases	386.05	15.26	17.19	24.97	203.57	647.0	2.2%	0.11%
g. Graphic Arts	207.08	2.52	0.39	2.13	117.78	329.9	1.1%	0.05%
h. Advertising Services	371.6	31.0	3.8	28.2	267.8	702.4	2.4%	0.12%
i. Copyright Collective Management Societies	15.3	0.6	0.7	1.0	3.8	21.4	0.07%	0.004%
Total Core Copyright	5,810.91	470.05	298.64	966.71	2,817.45	10,363.77	35.7%	1.7%
Approximate US\$ Core Copyright	92.97	7.52	4.78	15.47	45.08	165.82		
Interdependent								
Core Interdependent								
	41.83	7.78	22.37	7.78	35.99	115.8	0.40%	0.019%
Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	4.53	0.8	2.4	0.54	3.9	12.5	0.043%	0.002%
Manufacture of Computers and Equipment	37.30	6.9	20.0	6.94	32.1	109.2	0.354%	0.017%
Partial Interdependent	1,173.49	128.73	904.32	126.46	2,046.48	4,379.48	15.1%	0.724%
Manufacture of Optical Instruments and Photographic Equipment	17.20	3.2	9.2	3.20	14.8	47.6	0.164%	0.008%
Manufacture of Certain Articles of Paper and Paperboard	46.10	8.6	24.7	8.58	39.7	127.6	0.439%	0.021%
Rental of Radio, Television	9.12	0.41	0.66	11.64	8.70	30.5	0.105%	0.005%
Rental and Leasing of Data Processing Equipment	2.22	0.10	0.16	2.64	2.12	7.4	0.026%	0.001%
Wholesale and Retail of the Interdependent Copyright Industries	1,096.84	116.45	869.65	100.20	1,981.19	4,166.34	14.3%	0.68%
Total Interdependent Copyright	1,216.31	136.51	926.70	134.24	2,082.47	4,495.23	15.5%	0.74%
Approximate US\$ Interdependent Copyright	19.44	2.18	14.83	2.15	33.32	71.92		
Partial Copyright Sectors								
Manufacture of Certain Apparel, Textiles and Footwear, and Related Items	11.47	0.63	1.63	1.59	1.51	16.83	0.06%	0.003%
Manufacture of Furniture	54.38	0.80	6.13	4.81	44.88	110.78	0.38%	0.02%
Manufacture of Household Goods, China and Glass	1.45	0.14	0.26	0.28	2.30	4.43	0.02%	0.001%
Manufacture of Jewelry, Watches and Related	19.37	0.66	0.88	0.74	9.80	21.44	0.11%	0.01%
Interier Decorating and Carpets	2.17	0.09	0.10	0.14	1.14	3.63	0.01%	0.001%
Engineering, Architectural and Technical (including Surveying)	421.1	16.6	18.8	27.2	222.1	708.9	2.43%	0.12%
Wholesale and Retail of Partial Copyright Industries	524.6	55.6	415.2	47.6	945.9	1,938.2	6.8%	0.35%
Total Partial Copyright	1,032.46	74.46	442.86	82.50	1,226.24	2,858.53	9.8%	0.47%

Table 25: Contribution of Copyright Sectors to GDP, 2005

	Wages and Salaries (J\$ million)	Compensation for Social Security (J\$ million)	Indirect Taxes (J\$ million)	Depreciation (J\$ million)	Operating Surplus (J\$ million)	Contribution to GDP (J\$ million)	Share of Copyright GDP	Share of GDP
Approximate US\$ Partial	16.62	1.19	7.09	1.32	19.62	45.74		
Non-Dedicated Copyright								
General Distributive Trades	1,675.4	198.7	1,484.2	171.0	3,381.3	7,110.6	24.4%	1.2%
General Transportation, Storage, Communications and Business Services	1,683.5	219.9	181.3	705.7	1,427.8	4,218.2	14.5%	0.7%
Total Non-Dedicated	3,558.89	418.69	1,665.52	876.68	4,809.07	11,328.85	39.0%	1.9%
Approximate US\$ Non-Dedicated	56.94	6.70	26.65	14.03	76.95	181.26		
Total Copyright Industries	11,617.6	1,099.7	3,333.7	2,060.1	10,935.2	29,046.4	100%	4.8%
Approximate US\$ Total Copyright	186.9	17.6	53.34	33.0	175.0	464.7		

Source: Computed from data provided by STATIN

Table 26: Composition of the Contribution of Music and Theatrical Production to GDP, Income, Intermediates and Turnover

	Wages and Salaries as Share of Compensation (J\$ million)	Other Compensation for Social Security, etc (J\$ million)	Indirect Taxes (J\$ million)	Depreciation (J\$ million)	Operating Surplus (J\$ million)	Intermediate Inputs (J\$ million)	Gross Output (Sales) (J\$ million)	Gross Output (US\$ million)
b. Music, Theatrical Productions, Opera	918.33	59.15	62.91	100.78	122.31	1,799.20	3,063.41	49.01
Manufacture of Audio and Video Records and Tapes/Recorded Music Using Census 2001 Adjusted at Rate of Wage Inflation	31.07	5.8	16.6	5.78	26.7	253.6	340.3	5.44
Music Component of Authors, Music Composers and Independent Artists	647.72	39.0	33.8	69.35	68.8	1,128.3	1,987.9	31.81
Dance Studios	111.17	6.7	6.8	11.80	12.0	193.7	347.2	5.46
Theater and Related Entertainment Services	128.37	7.7	6.7	13.75	13.8	223.6	394.0	6.30

Table 27: Percentage Contribution of Sectors to GDP, 2005

Sectors	Percent
Agriculture, Forestry and Fishing	5.2%
Mining and Quarrying	5.8%
Manufacturing	13.3%
Electricity and Water	4.1%
Construction and Installation	10.6%
Distributive Trade (Wholesale and Retail)	21.8%
Transport, Storage and Communication	13.9%
Financing and Insurance Services	8.2%
Real Estate and Business Services	5.2%
Producers of Government Services	9.8%
Miscellaneous Services	8.5%
Household and Private Non-Profit Institutions	0.5%
Less Imputed Service Charge	6.8%
TOTAL GROSS DOMESTIC PRODUCT	100.0%
Copyright (Core and Neighboring)	4.8%

6. The Contribution of Copyright-Based Industries to Employment

The estimates of employment (Table 28) are based on the adjusted wage reported in Table 25 above and in Annex II, along with the relevant details of the factor that adjusts for deviation of the average of the STATIN large establishment and supplementary case data from the overall average as indicated by Census 2001 data. The estimates indicate that the copyright sectors account for 3.03 percent of all employment in Jamaica, which is approximately 32,032 persons. The employment share is based on STATIN's reported total economy-wide employment of 1,056,000 for 2005.

6.1. Employment in Core Copyright Industries

The largest sub-group of employees is found in the core copyright sector, which accounts for 18,987 jobs, equivalent to 1.8 percent of total employment in Jamaica and 59.3 percent of all employment in the copyright sector. The high share of employment relative to the share of copyright GDP (35.6 percent) is due to the low level of average income in the core copyright sector. This distinguishing feature is principally due to the relatively high share of self-employed persons in the core copyright sector, underpinned by its high degree of undercapitalization. Indeed, most of the components at the leading edge of the sector, such as music, entertainment, theater and other components, emerged from within the subsistence self-employed and still thrive on intensive use of the underemployed workforce and its tacit knowledge to earn relatively low levels of income even though a few elite personalities earn high incomes and the capital productivity is high (Annex III). The high share of core copyright in employment is also a reflection of the low level of development of copyright-related manufacturing in the interdependent and partial copyright sub-sectors. This type of activity contrasts sharply with the relatively intensive use of real capital and reliance on R&D by the core copyright of some other countries studied by WIPO, such as the US (WIPO, 2006). Within the core copyright sector, the main contributors are press and literature, accounting for 6400 employees, which is 0.61 percent of the total employment and 20 percent of all copyright sector employment; radio and television for 5042 employees, which is 0.5 percent of total employment and 15.7 percent of copyright employment; and music and theatrical productions for 2879, which is 0.27 percent of total employment and 9 percent of copyright sector employment. The internationally reputed music sector itself accounts for 2054 employees or 0.2 percent of all employment in Jamaica and 6.4 percent of copyright sector employment (Table 28; Annex III).

6.2. Employment in Interdependent Copyright Industries

The interdependent copyright sector employs 3,324 persons, or 0.32 percent of all jobs and 10.4 percent of employment in the copyright sector. The core interdependent sector is very small, employing only 75 persons in the manufacture of TV and radio transmitters, etc., and in the manufacture of computers and related equipment. Most of the employees are in the large partial interdependent sector, with 3248 persons, or 0.31 percent of all employment in Jamaica and 10.1 percent of all employment in the copyright sector. The largest segment in the partial interdependent sector is the set of wholesale and retail activities (Table 28).

6.3. Employment in Partial Copyright Industries

The partial copyright sector employs 2510 persons, or 0.242 percent of all jobs in the economy and 7.8 percent of employment in the copyright sector. The main component of the partial copyright sector is wholesale and retail activities, employing 1544 persons or 0.15 percent of all employment in Jamaica and 4.8 percent of employment in the copyright sector. The other main activities in this sector are engineering, architecture and surveying (744 jobs) and manufacture of furniture (149 jobs) (Table 28).

6.4. Employment in Non-Dedicated Support Industries

The non-dedicated support copyright sector employs 7211 persons, which is to say, 0.68 percent of all jobs in the economy and 22.5 percent of employment in the copyright sector. There are two major sub-groups creating jobs in support of the sector. These are distributive trades, which employ 3670 persons, or 0.35 percent of all jobs in Jamaica, and 11.5 percent of employment in the sector; and general transportation, storage, communication and related business services, which provide 3541 jobs, or 0.34 percent of employment in Jamaica, and 11.1 percent of employment in the sector (Table 28).

Table 28: Contribution of the Copyright Sectors to Employment, 2005			
	Employment	Share of Copyright Employment	Share of Total Employment
Core			
a. Press and Literature	6,408.5	20.007%	0.6059%
b. Music, Theatrical Productions, Opera	2,879	8.987%	0.2726%
c. Motion Picture and Video Production, Distribution and Projection	520	1.625%	0.0493%
d. Radio and Television Broadcasting	5,042	15.742%	0.4775%
e. Photography	1,230	3.841%	0.1165%
f. Software and Databases	1,246	3.891%	0.1180%
g. Graphic Arts	473	1.477%	0.0448%
h. Advertising Services	1,173	3.662%	0.1111%
i. Copyright Collective Management Societies	14	0.044%	0.0013%
Total Core Copyright	18,987	59.276%	1.7980%
Interdependent			
Core Interdependent	75	0.235%	0.0071%
Partial Interdependent	3,248	10.141%	0.3076%
Wholesale and Retail of the Interdependent Copyright Industries	3,098	9.673%	0.2934%
Total Interdependent Copyright	3,325	10.376%	0.3147%
Partial Copyright Sectors			
Manufacture of Certain Apparel, Textiles and Footwear, and related Items	46	0.144%	0.0044%
Manufacture of Furniture	149	0.464%	0.0141%
Manufacture of Household Goods, China and Glass	4.1	0.013%	0.0004%
Manufacture of Jewelry, Watches and Related Items	23	0.073%	0.0022%
Interior Decorating and Carpets	2	0.006%	0.0002%
Engineering, Architectural and Technical (including Surveying)	744	2.321%	0.0704%
Wholesale and Retail of Partial Copyright Industries	1,544.3	4.821%	0.1462%
Total Partial Copyright	2,510	7.8%	0.238%
Non-Dedicated Copyright			
General Distributive Trades	3,670	11.5%	0.348%
General Transportation, Storage, Communications and Business Services	3,541	11.1%	0.335%
Total Non-Dedicated	7,211	22.5%	0.683%
Total Copyright Industries	32,032	100%	3.03%
Jamaican Economy	1,056,000		

6.5. Contribution to Asset Earnings Productivity and Profile of Employment and Skill in Copyright

In general, as measured by the partial average earnings productivity of years of education (defined to include years dedicated to job-specific training) (Table 29), the copyright sectors contribute comparatively high domestic asset productivity to the economy. Most of the core copyright sectors show education earnings productivity well above the average of all industries, with the order of contribution being motion picture and video production and distribution; radio and television broadcasting; theater and related entertainment services; dance studios; authors, music composers and independent artistes; art galleries and related museums; and manufacture of audio and video records and tapes. The average level of education in the core copyright sectors is also high, well above the average of all industries (9.8 years of education). However, it is instructive that workers in the music industry, the segment of Jamaica's copyright industry that is the most recognized internationally, are among those with the least education in this set; in particular, in authors, music composers and independent artistes (10.5 years), along with motion picture and video production and distribution (10.5 years), dance studios (9.8 years), and manufacture of audio and video records and tapes (9.6 years). Interestingly, the last four sub-sectors are also not in the mainstream of the education system in Jamaica although there are some indications of change. In 1991, at a time when the government owned much of the media, people in the core copyright sector were also likely to have high levels of education, live in parishes with high levels of education, and come from among government employees, private sector employees, capitalists, and self-employed entrepreneurs without employees. In this period too, employees in the copyright sector also tended to come from parishes with a high level of productivity of self-employed without employees. However, by 2001, two important changes had occurred. One is that government employees were no longer likely to be in the sector, as the government had privatized its holdings. The other, and perhaps more important, change is that reliance on communities with high levels of education had risen substantially while there was no longer reliance on persons from parishes with a high average productivity among the self-employed without employees (Table 30). In the specific case of the subset comprising the music industry, defined to include the sale of sound recordings, the role of the unpaid worker had come to an end by 1991, and employment in the industry had become focused more on the young, self-employed, and private employers.

However, again, while persons from parishes with high subsistence productivity played a major role in the industry in 1991, this factor played no role in 2001. And, here too, the industry was increasing its reliance on persons from parishes with high average levels of education (Table 31).

To complement the data in Table 28, a general Becker-Chiswick-Mincer earnings function is estimated and reported in Table 32, based on data in Census 2001 and the specification in Section V. The estimates show that, without distinguishing the levels of degree and such relevant issues, the core copyright sectors yield a higher average rate of return to investment in education (9.7 percent) than do other sectors of the economy (8.5). However, the added premium for job-specific training is higher in the rest of the economy than in the core copyright sector, even though the latter is also quite substantial. Specifically, additional training yields a premium of about 10.5 percent higher than for persons without. It takes an average of about 1.3 years to receive this training, yielding a rate of return of about 8.07 percent. Thus, the overall rate of return on education in copyright is about 17.1 percent, which is well above the going rate of return of 10 percent. Together, the data show that it is comparatively very beneficial for the economy to re-allocate resources to invest in education for the copyright sector and to sufficiently sustain the allocations for job-specific training.

However, the most compelling evidence is that underemployment conditions prevail in the sector. Specifically, the elasticity of wages to labor supply in the sector is highly inelastic, specifically less than one and more generally very close to zero – similar to the situation prevailing in the rest of the economy. The elasticity of response of wages to hours worked in the copyright sector is 0.18 and the elasticity of response of wages to weeks worked is 0.20. These are highly inelastic wage curves and imply highly elastic labor supply functions. In the rest of the economy, the corresponding figures are 0.32 and 0.07. These conditions imply a shortage of capital and a sparse technology set in the copyright sector, which can only be remedied by the production and accumulation of domestic fixed and working capital. More important still, the elasticity of response of the wage to the average product of the self-employed, as engendered by a movement from a parish of lower average product to one with a higher level, is about 0.31, and above zero at a 10 percent level of statistical significance, indicating positive pecuniary externalities. The rate of return from increase in the average level of education in the community of residence is about 26 percent, which is also significant at the 10 percent level. In comparison to the private rate of return, it indicates substantial positive non-pecuniary externalities. Together, these results indicate a substantial influence of social forces on individual outcomes and, in particular, a significant deviation of the real wage from the marginal product of labor. By Walras' Law, the same would apply to all other factors of production and, in the context of the heterogeneity of the factor supplies, this necessitates use of the average return to the claims of factors when computing average factor productivities for definition and design of public policy. These results are reported in Table 33 below for convenient reference, with details provided in Table 34.

Table 29: Education and Earnings Productivity Profile of Employees in Copyright Sectors and Other Selected Comparison Sectors

WIPO Classification	Sector Description	Number in Sample	Mean Years of Education	Mean Worker Earnings	Earnings Productivity of Education (Descending Order)
Core	Motion Picture and Video Production and Distribution	16	10.5	940199.9	89542.8
Non-Dedicated	Water Transport	50	10.9	919706.5	84222.2
Non-Dedicated	Legal Services	133	12.1	847697.9	69897.1
Core	Radio and Television Broadcasting	28	12.6	831554.5	66146.5
Non-Dedicated	Air Transport	167	12.0	732105.2	61131.0
Comparison	Other Research	8	12.8	753599.9	59105.9
Non-Dedicated	Account Audit and Business Services	211	13.0	734419.3	56880.0
Partial	Manufacture of Jewelry and Related Items	22	10.2	539219.8	52723.6
Comparison	Medical Research Orgs	9	14.0	707874.9	50562.5
Non-Dedicated	Support Transport Air	152	11.1	550789.4	49421.6
Interdependent	Retail of Calculators and Computers	91	12.7	599541.1	47318.6
Core	Theater and Related Entertainment Services	17	11.1	520939.8	46857.2
Core	Dance Studios	13	9.8	451139.8	46179.7
Partial	Interior Decorating	31	9.3	404999.8	43745.6
Core	Advertising and Market Research	84	12.6	525978.7	41878.9
Non-Dedicated	Support of Transport by Water	100	10.9	457134.1	41785.6
Partial	Engineering, Architecture and Surveying	187	12.2	503815.3	41412.4
Non-Dedicated	Freight Transport Road	410	9.3	359625.6	38649.1
Core	Authors, Music Composers and Independent Artists	177	10.5	403126.9	38259.3
Interdependent	Retail of Radios, Televisions and Recording Equipment	22	11.6	441374.9	38079.4

Table 29: Education and Earnings Productivity Profile of Employees in Copyright Sectors and Other Selected Comparison Sectors

WIPO Classification	Sector Description	Number in Sample	Mean Years of Education	Mean Worker Earnings	Earnings Productivity of Education (Descending Order)
Core	Art Galleries and Related Museums	11	11.2	410899.9	36747.2
Partial	Manufacture of Made-up Textiles	26	9.7	353704.2	36493.3
Partial	Manufacture of Wearing Apparel and Crocheted Products	52	10.1	356182.8	35211.9
Non-Dedicated	Storage and Warehousing	47	10.4	366232.1	35128.5
Partial	Manufacture of Plastic Containers and Cups	42	10.2	348571.3	34205.5
Non-Dedicated	Other Passenger Transport Road	1,524	9.5	306756.9	32130.4
Partial	Wholesale and Retail of Textiles and Apparel (n.e.c)	23	10.8	343874.8	31891.6
Core	Manufacture of Audio and Video Records and Tapes	11	9.6	290699.9	30167.0
System Mean (Comparison)	Total	66,656	9.8	288856.9	29502.2
Partial	Manufacture of Textiles (n.e.c)	12	10.4	306179.8	29393.2
Comparison	Other Industries	55,446	9.8	286832.4	29333.5
Core	Publishing, Print and Publish	257	10.7	305710.0	28663.7
Partial	Retail of Household Appliances	50	10.0	282859.3	28229.5
Partial	Retail Stores dealing in Furniture	93	10.4	292286.7	28110.4
Non-Dedicated	Public Transport by Road	603	10.0	274563.0	27501.9
Core	Data Processing and Tabulating Services	144	11.8	323539.0	27470.2
Partial	Manufacture of Wooden Furniture	649	9.6	263447.8	27461.9
Partial	Retail Stores dealing in Jewelry, Watches and Clocks	41	10.1	273290.1	26999.6
Partial	Wholesale of Household Furniture and Equipment	8	11.0	295099.8	26827.3
Partial	Manufacture of Metal Furniture	17	9.4	240169.1	25678.5
Core	Photo Studios	98	10.3	264408.2	25604.8
Non-Dedicated	Support of Transport by Road	73	10.6	265389.3	25062.7
Interdependent	Manufacture of Certain Paper Products	24	11.3	276749.8	24600.0
Interdependent, Partial and Non-Dedicated	Miscellaneous Retailers	4,400	9.2	215287.8	23524.6
Partial	Parquet Floors and Carpeting	15	9.7	223949.8	23167.2
Partial	Wholesale of Cotton Textile and Related Fabrics	9	10.6	242888.7	23010.4
Partial	Manufacture of Children's Clothing	70	9.7	221917.2	22844.4
Partial	Retail of Household Furnishings, Fittings and Carpets	64	10.7	226825.9	21192.5
Partial	Manufacture of Other Wearing Apparel	109	10.1	213414.5	21128.3
Partial	Retail Stores dealing in Textiles and Apparel	204	10.2	215010.2	21016.8
Partial	Manufacture of Women's Clothing	258	9.5	196825.7	20642.7
Partial	Manufacture of Other Plastic Products	37	10.8	214576.7	19798.9
Partial	Retail Stores dealing in Footwear	17	10.8	212349.8	19619.3
Interdependent	Retail of Musical Instruments	7	10.4	203699.8	19532.8
Partial	Manufacture of Chinaware, Stoneware and Earthenware	12	10.3	197519.8	19270.2
Partial	Manufacture of Men's Clothing	192	10.0	188293.6	18898.3
Partial	Wholesale of Office Furniture and Equipment	7	11.4	186999.9	18362.4
Partial	Manufacture of Boots from Various Fabrics	17	9.6	111969.0	11677.8
Partial	Wholesale of Clothing	10	10.2	116999.9	11470.6

Table 30: Estimated Probit Model of Selection into Employment in Core Copyright Sectors				
1991				
Number of obs = 632467	LR chi2(11) = 10269.87		Prob > chi2 = 0.0000	
Pseudo R2= 0.0885	Log likelihood = -52877.1			
Core Copyright Dummy Variable	Coefficient	Std. Err.	z	P> z
Years of education	0.049853	0.001475	33.81	0.000
Age	0.00252	0.001803	1.4	0.162
Age-squared	-8E-05	2.27E-05	-3.51	0.000
Quarter of birth	-0.01053	0.00355	-2.97	0.003
Average productivity of the self-employed in parish of residence	0.944722	0.038037	24.84	0.000
Mean years of education in parish of residence	0.052349	0.014643	3.57	0.000
Government employee	0.075136	0.024803	3.03	0.002
Paid employee in private enterprise	0.607283	0.02161	28.1	0.000
Unpaid worker	0.043979	0.061438	0.72	0.474
Self-employed with employees	0.517431	0.028311	18.28	0.000
Self-employed without employees	0.250522	0.023769	10.54	0.000
Constant	-12.2407	0.242203	-50.54	0.000
2001				
Number of obs=61132	LR chi2(12) = 789.25		Prob > chi2 = 0.0000	
Pseudo R2= 0.0786	Log likelihood = -4623.9			
Core Copyright Dummy Variable	Coef.	Std. Err.	z	P> z
Years of Education	0.0414199	0.005571	7.43	0.000
Age	-0.0026167	0.005686	-0.46	0.645
Age-squared	-0.0000201	6.94E-05	-0.29	0.772
Quarter of birth	-0.0269444	0.011952	-2.42	0.015
Average productivity of the self-employed in parish of residence	0.0516037	0.093819	0.55	0.582
Mean years of education in parish of residence	0.5059957	0.065219	7.76	0.000
Government employee	-0.249113	0.078023	-3.19	0.001
Paid employee in private enterprise	0.4851333	0.055731	8.7	0.000
Unpaid worker	-0.2398059	0.196505	-1.22	0.222
Self-employed with employees	0.2797561	0.079252	3.53	0.000
Self-employed without employees	0.1153345	0.061694	1.87	0.062
Constant	-8.501424	0.705072	-12.06	0.000

Table 31: Estimated Probit Model of Selection into Employment in Music Industry			
1991			
Log likelihood = -16005.319; LR chi2(10) = 2097.59; Prob > chi2 = 0.000; Pseudo R2 = 0.0615			
Dependent Variable: Dummy of Employment in Music Industry	Coefficient	Std. Err.	P> z
Years of education	0.0441267	0.002626	0.000
Age squared	-0.0000812	7.87E-06	0.000
Quarter of birth indicator of acquired ability	-0.0216967	0.006152	0.000
Mean earnings of subsistence workers in parish of residence	0.4353415	0.062595	0.000
Mean years of education in parish of residence	0.1303429	0.025845	0.000
Hours worked per week	0.0010034	0.000401	0.012
Government employee	-0.5859152	0.052661	0.000
Paid worker in private sector	0.1833578	0.029967	0.000
Self employed with employees	0.4929594	0.038351	0.000
Self employed without employees	0.4238894	0.030897	0.000
Constant	-8.50397	0.377899	0.000
2001			
Log likelihood = -1754.7559; LR chi2(9) = 194.01; Prob > chi2 = 0.000; Pseudo R2 = 0.0524			
	Coefficient	Std. Err.	P> z
Years of education	0.0328124	0.008707	0.000
Quarter of birth indicator of acquired ability	-0.0409217	0.018624	0.028
Age	-0.0105839	0.0019	0.000
Mean years of education in parish of residence	0.3593917	0.059933	0.000
Government employee	-0.6542623	0.179217	0.000
Paid worker in private sector	0.2052967	0.081751	0.012
Self employed with employees	0.5111759	0.102776	0.000
Self employed without employees	0.3575037	0.08326	0.000
Other employment status (mixed)	0.3361189	0.156159	0.031
Constant	-6.370376	0.618084	0.000

Table 32: Comparative Earnings Productivity of Education in Core Copyright and Other Industries, 2001

Core Copyright Sectors				Other Sectors of Economy			
Source	SS	Df	MS	Source	SS	df	MS
Model	78.368	126.530	69826	Model	12801.30	121066	77459
Residual	341.866	707.46	35452	Residual	26468.76844	4945.6889	14639
Total	420.235	719.58	71259	Total	39270.06354	4957.8735	2758
Number of obs = 720		R-squared = 0.1665		Number of obs = 44958		R-squared = 0.326	
F(12, 707) = 13.51		Adj R-squared = 0.1727		F(12, 44945) = 1811.42		Adj R-squared = 0.3258	
Prob > F = 0.0000		Root MSE = 0.69537		Prob > F = 0.0000		Root MSE = 0.76741	
Log of Annual Earnings	Coefficient	Std. Err.	P> t	Log of Annual Earnings	Coefficient	Std. Err.	P> t
Copyright <i>lambda</i>	2.480	4.371	0.571	Copyright <i>lambda</i>	1.457	0.535	0.007
Years of education	0.097	0.013	0.000	Years of education	0.085	0.002	0.000
Training for job	0.105	0.057	0.067	Training for job	0.271	0.009	0.000
Experience	0.007	0.007	0.344	Experience	0.021	0.001	0.000
Experience-squared	0.000	0.000	0.832	Experience-squared	0.000	0.000	0.000
Firm size	0.133	0.054	0.013	Firm size	0.291	0.006	0.000
Firm size squared	-0.016	0.006	0.006	Firm size squared	-0.025	0.001	0.000
Log of hours worked per week	0.183	0.061	0.003	Log of hours worked per week	0.315	0.008	0.000
Log of weeks worked	0.200	0.056	0.000	Log of weeks worked	0.069	0.008	0.000
Log of the average productivity of the self-employed in parish of residence	0.315	0.184	0.087	Log of the average productivity of the self-employed in parish of residence	0.471	0.023	0.000
Mean years of education in parish of residence	0.263	0.147	0.074	Mean years of education in parish of residence	0.115	0.017	0.000
Male	0.179	0.054	0.001	Male	0.098	0.008	0.000
Constant	1.022	4.783	0.831	Constant	1.092	0.547	0.046

7. Policy Perspectives for Copyright Sector

The above evidence demonstrates that the copyright sector has emerged as a significant *locus* of production and distribution facilities. It provides growing opportunities for the Jamaican economy to gain an increasing share of the markets of the developed countries and a significant share of the markets of the large surplus-labor countries that are rapidly increasing their production and employment of domestic capital. Policy for the copyright sector should ideally be empirically driven by the central principles highlighted by the theory and data assembled above. In that case, two sets of principles shape policy formulation in this report. The first concerns the high level of underemployment in the sector and the related high level of underutilized potential for expansion. The self-employed play a substantial role in most of the sub-sectors that depend on copyright or that support it, though with substantial variations among them. For example, the self-employed account for as much as 68 percent of employment in non-dedicated passenger road transport, 55 percent of museums and art galleries, and 24 percent of authors, music composers and independent artistes. Furthermore, the evidence on the elasticity of the labor market confirms that the supply of unskilled labor in these sectors can be put to work at relatively low cost, but with high inflows of tacit knowledge under existing investment conditions. The ratio of wages to labor supply in the sector is highly inelastic, being substantially less than one and more generally very close to zero. Specifically, the elasticity of response of wages to hours worked is 0.18 and to weeks worked, 0.20.

For the rest of the economy, the corresponding figures are 0.32 and 0.07. These conditions imply a shortage of capital and a sparse technology set in the sector, which can only be remedied by deploying the underemployed workers to produce domestic capital with both fixed and working capital and to facilitate its accumulation. This is consistent with the general macro and development economics in which the measures are located and indicate that the central economic problems of Jamaica coincide with those of the copyright sector: shortage of both working capital and real fixed capital, as well as skills in the private (wage employment) sector, combined with inadequate protection of loan finance and a community of traditional capitalists lacking interest in large-scale domestic capital formation in the sector.

For these reasons, copyright and related support activities can become one of the main sectors leading the Jamaican economy to attract entrepreneurs to the process of accumulating domestic capital at the rates necessary to achieve or surpass the growth rates and economic adaptability that would sustain effective reintegration into the rapidly changing world economy. The sector provides comparatively attractive prospects for expanding production facilities, development and marketing of new products (especially services) and possibly even mergers and acquisitions. Basically, successful realization of this potential will require government (central and local), the private sector and non-governmental organizations to undertake capital expenditures, especially in the sense of expenditures in the current period that will yield future gains even when the investment is not tangible. Specifically, the following will be required:

1. Investment in acquiring and producing applicable knowledge, especially tacit knowledge, and in the problem-solving skills to use and codify it as necessary for improved business success. This implies that rapid growth of the sector requires rapid growth of relevant education and training for practical participation in the sector, with mainstreaming achieved by ongoing training and tracking from primary school through to post-graduate education and research.
2. Corresponding investment in physical capital assets to complement the human capital accumulation identified in (1). These assets include both public infrastructure and private physical capital formation.

The second principle is that, in the allocation of support, policy must consider the comparative prospects for significant gain to the economy and to the individual investor from moving resources into the copyright

sector. Does high potential match high productivity? How are sectors to be compared and ranked for the purpose of re-allocation of policy support? The answer to these questions is to be found in the key implication of the above empirical results for the measurement method. The divergence of the marginal product from the factor price implies that standard productivity calculations cannot isolate the quantity of capital independently of the factor prices. So the relevant comparative measures are the productivity of claims paid to the factors employed in production – the average partial productivities – and assessment of the import-intensity of each sector and the nature of the domestic capital being put to use there. Moreover, all of this is to be considered along with the turnover from intermediate inputs. The estimates of average productivity of capital are proxies for the average return on imported physical capital used in combination with domestic capital because most of the physical capital in most sectors is imported.

As reported in Section VI, without regard to levels of education, the core copyright sector yields a higher average rate of return on investment in education (9.7 percent) than do other sectors of the economy (8.5 percent). However, the added premium for job-specific training is higher in the rest of the economy, even though premium in the sector is also quite substantial. Together, the data show that it is comparatively very beneficial for the economy to re-allocate resources to invest in education for the sector and to sufficiently sustain the allocations for job-specific training. The more general situation with capital productivity can be gleaned from the related summary data assembled in Table 33 and detailed in Table 34. Table 33 reports the comparative value added per dollar of claims paid to different factors of production, and the information is presented in descending order by the size of the average productivities in the column headed value added per dollar of claims paid to capital, defined as the sum of depreciation and the operating surplus. Note that, in the case of labor productivity, the estimates are the same as the multipliers reported in the study and used to replicate the structure (or distribution) of income by sector.

Table 33: Contribution to GDP per Dollar of Claims Paid to Factors of Production and the Effective Indirect Tax Rate

JSIC Code	PRODUCT GROUPS	Value added per Dollar of Claims by Capital (Depreciation Plus Operating Surplus)	Labor Productivity	Turnover of Intermediate Inputs	Effective Indirect Tax Rate
224-225	Leather and Leather Products, Footwear	6.57	1.44	1.31	13.2%
94990b	Other Amusement and Recreation etc.	6.18	1.33	1.76	3.9%
221 - 223	Textiles and Wearing Apparel	5.32	1.47	1.32	9.2%
94130	Radio and Television Broadcasting	4.25	1.46	2.25	4.1%
94920	Horse Racing and Betting Activities	3.81	5.65	2.40	55.4%
94110 and 94120	Motion Picture and Video Production, Distribution and Projection	3.63	1.59	1.35	3.8%
24220	Printing not connected to Publishing	3.33	1.54	1.52	3.3%
29, 3386	Other Manufacturing Industries	3.07	1.67	1.81	2.7%

Table 33: Contribution to GDP per Dollar of Claims Paid to Factors of Production and the Effective Indirect Tax Rate

83252	Advertising Services (e.g. Billboards)	2.96	1.79	1.72	7.9%
83260	Other Business Services	2.83	1.68	2.84	2.7%
24214	Publishing of Magazines and Books	2.79	1.64	1.39	1.2%
24212	Publishing of Newspapers	2.76	1.82	2.07	3.0%
95620	Photographic Studios	2.75	1.59	1.82	0.1%
33731	Manufacture of Records	2.67	2.79	1.34	19.2%
7000-7191	Transportation	2.63	1.93	1.83	7.0%
83251	Advertising Agencies	2.37	1.89	1.47	0.5%
231-232	Furniture and Fixtures, Wood, Wood and Cork Products	2.24	2.04	1.50	5.5%
6100-6200	Distributive Trade	2.00	3.79	3.01	20.9%
25 & 27	Chemicals, Chemical Products, Rubber and Plastic Products (incl. Lube Oils and Greases)	1.75	3.04	1.55	6.6%
28	Non-Metallic Mineral Products (excl. Petroleum and Coal Products)	1.55	3.12	1.89	1.9%
7192	Storage and Warehousing	1.54	3.32	1.59	1.1%
83000	Rental of Other Machinery and Equipment	1.50	3.35	1.81	2.2%
72000	Communication	1.49	4.26	3.92	1.3%

The data show that among the various sub-sectors of the economy related to copyright as reported by STATIN, most of which contribute only a small share of their output as copyright-related activities, the highest return on claims paid for use of capital comes from the copyright sector. In general, they rank as follows:

- Leather and leather products, footwear (1)
- Other amusement and recreation, etc. (2)
- Textiles and wearing apparel (3)
- Radio and television broadcasting (4)
- Horse racing and betting activities (5)
- Motion picture and video production, distribution and projection (6)
- Printing unconnected to publishing (7)
- Other manufacturing industries (8)
- Advertising services (e.g. billboards) (9)
- Other business services (10)
- Publishing of magazines and books (11)
- Publishing of newspapers (12)
- Photographic studios (13)
- Manufacture of records (14)
- Transportation (15)
- Advertising agencies (16)
- Furniture and fixtures, wood, wood and cork products (17)
- Distributive trade (18)
- Chemicals, chemical products, rubber and plastic products (incl. lube oils and greases) (19)
- Non-metallic mineral products (excl. petroleum and coal products) (20)
- Storage and warehousing (21)
- Rental of other machinery and equipment (22)
- Communication (23)

The top-ranked sectors involving mostly copyright activities such as leather and related craft products, amusement and recreation, which includes music and entertainment, “full-packaged” textile and apparel production, motion pictures and music videos, and business services, all tend to complement imported capital combined with substantial domestic tacit knowledge. They indicate that employment of domestic capital, especially as tacit knowledge, has the effect of raising the productivity of imported capital well above that achieved by sectors that do not employ significant amounts of domestic capital, such as the lowest ranking communication sector.

From among the industrial sectors for which data have been provided by STATIN, the partial copyright activities in the category of leather and leather products and footwear contributes the highest value per dollar of claims going to capital (J\$6.57). The data reported in Table 34 indicate that these activities include:

- Manufacture of other leather products
- Manufacture of luggage and handbags
- Manufacture of footwear made of rubber, plastic and other materials
- Manufacture of boots and shoes from leather fabrics and other materials except wood, rubber and plastic.

These are followed by core copyright sectors with a structure similar to amusement and recreation, which contribute J\$6.18 to GDP for each dollar of capital claims allowed to the investor. As reported in Table 34, the specific activities in the core copyright sector contributing J\$6.18 are:

- Authors, music composers and independent artistes in allied activities, not music
- Authors, music composers and independent artistes in the core music industry
- Dance studios
- Theater and related entertainment services.

The next most important contributor to GDP per dollar of outlay on capital and, hence, the next most efficient users of imported capital, is a variety of craft-related manufacturing activities that produce a variety of wearing apparel, crocheted goods, carpets, rugs, textiles and footwear, many elements of which are craft and art. The relevant list is (Table 34):

- Manufacture of certain apparel, textiles and footwear, and related items
- Manufacture of other wearing apparel
- Manufacture of made-up textile articles
- Manufacturing of carpets and rugs
- Manufacture of textiles
- Manufacture of wearing apparel and crocheted goods
- Manufacture of clothing (except footwear and fur apparel) for men and boys
- Manufacture of clothing (except footwear and fur apparel) for women and girls
- Manufacture of headgear
- Manufacture of clothing (except footwear and fur apparel) for children.

A set of activities in the core copyright sector follow. In descending order of contribution, these are:

- Copyright collective management societies (J\$4.47)
- General (national and other) radio and TV broadcasting, including independent producers, satellite TV and other services (J\$4.25)
- Motion picture production (J\$3.63)
- Motion picture and video distribution (J\$3.63)
- Printing unconnected to publishing (J\$3.33).

Other crafts involved in partial copyright production contribute J\$2.98 of value for each dollar of their capital outlays, in particular:

- Manufacture of jewelry, watches and related (partial)
- Manufacture of jewelry and related articles (partial)
- Manufacture of watches and clocks.

Among the significant contributors are some core copyright activities that yield J\$2.96 for each dollar of expenditure for use of available capital. These are:

- Advertising materials such as billboards (J\$2.96)
- Press and literature (J\$2.93)
- Data processing and related publishing (J\$2.83).

In addition, from the partial copyright sector, we have:

- Interior decorating and carpets (J\$2.83)
- Engineering, architecture and surveying (J\$2.83).

From the non-dedicated support sector, a substantial contributor is other business services, accounts, audit and bookkeeping and legal, which yields (J\$2.83). Next in importance are a set of core copyright sub-sectors, which are, in descending order of importance:

- Publishing of magazines and books (J\$2.79)
- Publishing of newspapers (J\$2.76)
- Museums and art galleries (J\$2.75)
- Photography (J\$2.75)
- Graphic arts (J\$2.75).

In all these cases, the return on a dollar of capital claims and, hence, the import productivity achieved, is higher than would be obtained by allocating the same dollar to employment of labor, including acquisition of skills transferred through education (Table 34).

Other important contributors to GDP per dollar of claims paid to capital come from the copyright-related manufacturing activity in the partial copyright sector and from the interdependent copyright sector, all of which contribute J\$2.64. The core manufacture of audio and video records and tapes/recorded music also yields J\$2.64 per dollar of capital claims on output. Another important but lesser contributor in the core is advertising agencies (J\$2.37).

The lowest contributor and least efficient user of imported inputs, cable TV, adds only J\$1.49 per dollar of its capital claims, but ranks second as a contributor via labor productivity (J\$4.25). This sector falls in the group of low import productivity sectors:

- Distributive trades (J\$2.00)
- Rental of other machinery and equipment (J\$1.50)
- Communication (J\$1.49).

Given the high level of intensity of use of imported capital inputs, the indicator of labor productivity in the copyright sector is also a good indicator of the rate at which claims flow to the foreign interests per dollar of outlay. The data (Table 34) indicate that the general ordering of the sub-sectors ranking highest in terms of the productivity of labor are:

- Communication, including cable TV (J\$4.25).
- Distributive trade (J\$3.79)
- Rental of other machinery and equipment (J\$3.35)
- Manufacture of plastic containers and cups (J\$3.04)
- Manufacture of plastic dinner ware and table ware (J\$3.04)
- Manufacture of plastic products (J\$3.04)
- Manufacture of glass (J\$3.12)
- Manufacture of glass products (J\$3.12)
- Manufacture of non-structural ceramic ware (J\$3.12)
- Storage and warehousing (J\$3.32).

Moreover, these import-intensive industries also include the two with the highest turnover of intermediate goods, much of which might be purchased locally:

- Distributive rate (J\$3.01)
- Communications (J\$3.92).

In that regard, it is striking that, within the copyright sector, the lowest contributors to efficient use of imports also tend to pay the highest sums to foreign direct investment (FDI) and hence the highest rates of factor incomes going abroad. It is in these segments of the copyright sector that a dollar spent on factor inputs tends to generate value that is lost to the local economy. Nevertheless, within the copyright sector, these sub-sectors have tended to be the most important focus of government's efforts at both structural adjustment and reintegration into the international financial sector.

The general finding is that appropriate policy would tend towards optimal use of imported inputs if it also yields priority support to domestic capital formation in the sector and also ensures that adequate education and relevant occupational skills are acquired by those seeking employment in it. It is also important to observe here that the estimates in Table 31 indicate that the earnings productivity of education of the core copyright sector is well above average for the economy as a whole, a result which also justifies support for capital accumulation in the sector. In these respects, public policy has been sub-optimal.

An important observation to be made here is that the highest contributors to GDP per dollar of claims paid to investors in capital in the partial and core copyright sector (and, hence, to import productivity) yield a higher return than is obtained by spending the same dollar on recruiting labor, even skilled labor in any other sub-sector in the copyright sector. Just as important, they also yield a higher return on capital than on labor if the same dollar is spent within the sector. The distinctive characteristic of all these sectors is their tendency to rely heavily on domestic tacit knowledge and other forms of capital, and to raise the efficiency of utilization of imported capital in producing output to penetrate the local and international markets. The simple arithmetic of these results is sufficient to suggest that policy to develop the sector would yield the highest return by first promoting capital formation generally, and domestic capital formation in particular, for the leading sub-sectors as priority over the promotion of the mere absorption of labor skills. Yet the results show that most of what is called labor is domestic capital assembled as human capital and this is a major factor that should in no way be neglected in rational policy formulation for the sector.

The importance of this observation is that without specific sector-wide evidence of the type presented, policy might not properly allocate investment support to the partial copyright sectors as part of a program to stimulate core copyright. These types of estimates have not been generated before by any other study and they illustrate the importance of providing routine access to data for analysis of the economic contribution of all the sectors of the economy. Countries that rely on the principle of access to information "on demand" usually will not do well. Further, these findings illustrate the value of empirically-driven policy formulation in a Caribbean society. In this regard, priority attention should be given to making available for all other sectors of the economy the income distribution and value added details provided at the 4-digit level for the sectors in Table 12. An immediate benefit from this would be more accurate estimation of the GDP and employment contributions as presented above. The availability of similar details for years other than 2005 would also allow preparation of trend estimates not available in this study.

Addressing the Paradox of Entrepreneurship

To address the paradox of investment identified above and to increase the flow of entrepreneurs into the sector, it is necessary to employ policies that focus on making the incentives to invest in domestic capital formation in the sector relatively more attractive than in other sectors of the economy. The boost given to import productivity and profitability would provide the main attraction for investors. The relevant policies include the following:

- **Improved Access to Credit:** The profits and growth generated by the investment in fixed and working capital could be boosted and accelerated by credit flows to the sector and, therefore,

should include appropriate provisions for priority access to credit. This is likely to require transformation of the current financial sector, including development banking, to support greater access by the copyright sector to long-term investment finance for fixed capital formation and short-term finance for working capital.

- **Technical, Incubation and Education Support for Investment in Domestic Capital and Creativity:** The sector should be supported with suitable technical research to develop domestic capital, especially tacit knowledge and creative capital, related product development, and implementation advice. Included should be suitable e-business incubation and other forms of enterprise-wide risk management mechanisms aimed at facilitating adoption and adaptation of relevant foreign information and communication technologies related to more efficient local and international marketing of copyrighted output. Risk management would normally focus on some combination of increased information flows, rational diversification, hedging, insurance, lobbying to influence the general operating environment and optimal mixing of general-purpose and firm-specific assets.
- **Accelerated Tax Benefits that boost Cash Flows:** It is appropriate for government to support innovating industries such as those in the copyright sector with accelerated tax benefits, such as accelerated depreciation benefits and deferred profits, or a tax haven for elite performers achieving some income threshold in penetrating the local and international markets. This investment policy should target both domestic and foreign capital, with the latter most favored when it enhances domestic capital production. Specifically, the government should give serious consideration to making Jamaica a tax haven for elite copyright personalities, along with other concessions to stimulate private investment in the industry. A study of the net benefits of such a move would be a prudent step. The available evidence is that this would be significantly compensated by the high rate of indirect taxes generated for government and society by the consequent expansion of the sector (Tables 33 and 34). The data show that, for previously-neglected segments such as music and theatrical production or graphic arts, the indirect tax rate yielded by the sector is relatively high, surpassed only by horse racing and related betting, (55.4 percent). The interdependent, partial, and non-dedicated distributive trades yield 21 percent, core manufacturing of records yields 19.1 percent, even though the volume is small. Just as important, core activities such as billboards and other advertising services (8 percent) and radio and television broadcasting (4.1 percent) yield an effective indirect tax rate well above the very low rates yielded by communications (1.3 percent) and similarly favored targets of strong policy support from the government. Comparatively then, supporting development of the copyright sector would also compensate society with an advantageous rate of indirect tax revenues.
- **Enhanced International Cooperation in the Copyright Sector:** In light of the above considerations, with the assistance of Jamaica Trade and Invest as the investment-promoting agency, the government should seek to encourage a substantially larger scale of international cooperation with local entrepreneurs to invest in the highly capital productive and internationally well-reputed segments of the copyright sector. Appropriate definition and marketing of the productivity potential of domestic capital would be a necessary component of this program of attraction.
- **Information Collection, Sharing, and Communication and Definition of Roles:** Reforms that promote good governance mechanisms facilitate sound design of relevant supporting public policy and informed leadership by the state. Part of these reforms should include a radical upgrade of the

information collection, sharing, and communication devices used to monitor and lead the development path of the industry, as well as the arrangements for sector-wide consultation and joint decision-making between government departments, the private sectors, and communities. This includes improvement of the data collected to facilitate analysis of the path of the economy and suggests that a comprehensive copyright industry database would be a major asset for all stakeholders. The process of investment for development of the copyright sector should continue to be led by the private sector, but with significant re-allocation of current budgetary support to better target its high-performing components. However, this too must rest on an informed definition of the roles of the private sector, with particular regard to clarification of those areas of investment that will require joint efforts with the state or only state investment. A strong information system is necessary for such decision-making to be effective.

- **Substantial reform at the primary and secondary levels of the education system:**
To mainstream occupational training for all core copyright sectors and to upgrade the monitoring of students, introduce new screening arrangements that explicitly define and certify talent in the full range of copyright professions up to the tertiary levels, and develop a sufficiently wide range of tertiary options for terminal education and training in copyright. This will also require an accelerated program of education and training for workers and entrepreneurs in copyright.

Table 34: Contribution to GDP per Dollar of Claims Paid to Factors of Production

JSIC Code	Copyright Classification	Copyright Activity	Capital Productivity	Labor Productivity	Output Per Dollar of Intermediate Inputs (Turnover)	Effective Indirect Tax Rate
2249	Partial	Manufacture of Other Leather Products	6.57	1.44	1.31	13%
2243	Partial	Manufacture of Luggage and Handbags	6.57	1.44	1.31	13%
2259	Partial	Manufacture of Footwear made of Rubber, Plastic and Other Materials (n.e.c)	6.57	1.44	1.31	13%
JSIC Code	Copyright Classification	Copyright Activity	Capital Productivity	Labor Productivity	Output Per Dollar of Intermediate Inputs (Turnover)	Effective Indirect Tax Rate
2251	Partial	Manufacture of Boots and Shoes from Leather Fabrics and other Materials except Wood, Rubber and Plastic	6.57	1.44	1.31	13%
9415	Core	Authors, Music Composers, Independent Artists	6.18	1.33	1.76	4%
9415	Core	Music Component of Authors, Music Composers and Independent Artists	6.18	1.33	1.76	4%
9498	Core	Dance Studios	6.16	1.33	1.76	4%
9414	Core	Theater and Related Entertainment Services	6.18	1.33	1.76	4%
33731	Core	Music, Theatrical Productions, Opera	5.66	1.38	1.70	5%
2238	Partial	Manufacture of Other Wearing Apparel (n.e.c)	5.32	1.47	1.32	9%
2221	Partial	Manufacture of Made-up Textile Articles	5.32	1.47	1.32	9%
2222	Partial	Manufacturing of Carpets and Rugs	5.32	1.47	1.32	9%
2229	Partial	Manufacture of Textiles (n.e.c)	5.32	1.47	1.32	9%
2231	Partial	Manufacture of Wearing Apparel and Crocheted Goods	5.32	1.47	1.32	9%
2234	Partial	Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	5.32	1.47	1.32	9%
2235	Partial	Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	5.32	1.47	1.32	9%
2237	Partial	Manufacture of Headgear	5.32	1.47	1.32	9%
2236	Partial	Manufacture of Clothing (except Footwear and Fur Apparel) for Children	5.32	1.47	1.32	9%
83	Core	Copyright Collective Management Societies General (national and other) Radio and TV Broadcasting, including Independent Producers, Satellite TV and Other Services	4.47	1.40	2.84	3%
94130	Core		4.25	1.46	2.25	4%
94110 and 94120	Core	Motion Picture Production	3.63	1.56	1.35	4%
94110 and 94120	Core	Motion Picture and Video Distribution	3.63	1.56	1.35	4%
24220	Core	Printing unconnected to Publishing	3.33	1.54	1.52	3%
2904	Partial	Manufacture of Jewelry and Related Items	2.98	1.62	1.81	3%
3386	Partial	Manufacture of Watches and Clocks	2.98	1.62	1.81	3%
83252	Core	Advertising Materials such as Billboards	2.96	1.79	1.72	8%
83260	Core	Data Processing and Related Publishing	2.83	1.68	2.84	3%
8324	Partial	Engineering, Architectural and Technical (including Surveying)	2.83	1.68	2.84	3%
83260	Non-Dedicated	Other Business Services, Accounts, Audit and Bookkeeping and Legal	2.83	1.68	2.84	3%
5452	Partial	Interior Decorating	2.83	1.68	2.84	3%
5531	Partial	Flooring (Parquet) and Carpeting	2.83	1.68	2.84	3%
24214	Core	Publishing of Magazines and Books	2.79	1.64	1.39	1%
24212	Core	Publishing of Newspapers	2.76	1.82	2.07	3%
9422	Core	Museums and Art Galleries	2.75	1.59	1.82	0%
95620	Core	Photography	2.75	1.59	1.82	0%

Table 34: Contribution to GDP per Dollar of Claims Paid to Factors of Production

JSIC Code	Copyright Classification	Copyright Activity	Capital Productivity	Labor Productivity	Output Per Dollar of Intermediate Inputs (Turnover)	Effective Indirect Tax Rate
95820	Core	Photographic Studios, Agencies, etc.	2.75	1.59	1.82	0%
9415	Core	Art Painters, Sculptors and Other Own-Account Artists (Graphic Arts)	2.75	1.59	1.82	0%
3372	Interdependent	Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	2.64	2.77	1.34	19%
3350	Interdependent	Manufacture of Computers and Equipment	2.64	2.77	1.34	19%
3385	Interdependent	Manufacture of Optical Instruments and Photographic Equipment	2.64	2.77	1.34	19%
3373	Core	Manufacture of Audio and Video Records and Tapes/Recorded Music using Census 2001 adjusted at rate of wage inflation	2.64	2.77	1.34	19%
2419	Interdependent	Manufacture of Certain Articles of Paper and Paperboard	2.64	2.77	1.34	19%
7112	Non-Dedicated	Public Passenger Transport by Road	2.63	1.93	1.85	7%
7116	Non-Dedicated	Supporting Services to Land Transport	2.63	1.93	1.85	7%
7121	Non-Dedicated	Ocean and Coastal Water Transport	2.63	1.93	1.85	7%
7123	Non-Dedicated	Supporting Services to Water Transport	2.63	1.93	1.85	7%
7131	Non-Dedicated	Air Transport	2.63	1.93	1.85	7%
7113	Non-Dedicated	Private Passenger Transport by Road	2.63	1.93	1.85	7%
7114	Non-Dedicated	Freight Transport by Road	2.63	1.93	1.85	7%
7132	Non-Dedicated	Supporting Services to Air Transport	2.63	1.93	1.85	7%
83251	Core	Advertising Agencies	2.37	1.89	1.47	1%
2322	Partial	Manufacture of Metal Furniture	2.24	2.04	1.50	6%
2323	Partial	Manufacture of Rattan (Wicker) Furniture	2.24	2.04	1.50	6%
	Partial	Manufacture of Furniture	2.24	2.04	2.64	8%
2321	Partial	Manufacture of Wooden Furniture	2.24	2.04	2.68	8%
6161	Partial	Wholesale of Cotton, Textile Yarn and Fabric	2.00	3.79	3.01	21%
6251	Interdependent	Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (Including Parts and Accessories)	2.00	3.79	3.01	21%
6252	Interdependent	Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment, including Parts and Accessories	2.00	3.79	3.01	21%
6253	Interdependent	Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	2.00	3.79	3.01	21%
6293	Interdependent	Other Miscellaneous Wholesalers and Retailers, including:	2.00	3.79	3.01	21%
6163	Partial	Wholesale and Retail of Partial Copyright Industries	2.00	3.79	3.01	21%
6169	Partial	Wholesale and Retail of Footwear	2.00	3.79	3.01	21%
6172	Partial	Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c)	2.00	3.79	3.01	21%
6173	Partial	Wholesalers of Household Furniture and Equipment	2.00	3.79	5.01	21%
6173	Partial	Wholesalers of Furniture and Fittings	2.00	3.79	3.01	21%

Table 34: Contribution to GDP per Dollar of Claims Paid to Factors of Production

JSIC Code	Copyright Classification	Copyright Activity	Capital Productivity	Labor Productivity	Output Per Dollar of Intermediate Inputs (Turnover)	Effective Indirect Tax Rate
5221	Partial	Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	2.00	3.79	3.01	21%
6222	Partial	Retail Stores dealing in Household Appliances (Electrical and Non-Electrical)	2.00	3.79	3.01	21%
6231	Partial	Retail stores dealing in Footwear	2.00	3.79	3.01	21%
6293	Partial	Miscellaneous Retailers, including Retail Stores dealing in Sports and Recreational Goods	2.00	3.79	3.01	21%
6100-6200	Non-Dedicated	Distributive Trades	2.00	3.79	3.01	21%
6162	Partial	Wholesale of Clothing	2.00	3.79	3.01	21%
6171	Partial	Wholesalers of Office Furniture and Equipment	2.00	3.79	3.01	21%
6223	Partial	Retail Stores dealing in Furniture	2.00	3.79	3.01	21%
6224	Partial	Retail Stores dealing in Jewelry, Watches and Clocks	2.00	3.79	3.01	21%
6231	Partial	Retail Stores dealing in Textiles, Wearing Apparel and Other Personal Effects	2.00	3.79	3.01	21%
2721	Partial	Manufacture of Plastic Containers and Cups	1.75	3.04	1.55	7%
2722	Partial	Manufacture of Plastic Dinner Ware and Table Ware	1.75	3.04	1.55	7%
2729	Partial	Manufacture of Plastic Products (n.e.c.)	1.75	3.04	1.55	7%
2811	Partial	Manufacture of Glass	1.55	3.12	1.89	2%
2812	Partial	Manufacture of Glass Products	1.55	3.12	1.89	2%
2891	Partial	Manufacture of Non-Structural Ceramic Ware (China; Stone; Earthenware, etc.)	1.55	3.12	1.89	2%
7192	Non-Dedicated	Storage and Warehousing	1.54	3.32	1.00	1%
8334	Interdependent	Rental of Radio, Television	1.50	3.35	1.81	2%
8335	Interdependent	Rental and Leasing of Data Processing Equipment	1.50	3.35	1.81	2%
72000	Core	Cable Television	1.49	4.25	3.92	1%
72000	Non-Dedicated	Communication	1.49	4.25	3.89	1%

7.1. Reflections on Policy to Accumulate Tacit Knowledge

The emphasis on development of domestic tacit knowledge is the basis for ensuring that the copyright sectors make the greatest contribution to a long-term saving of foreign exchange and easing of the balance of payments constraint through the process of increasing the productivity of employment of imported capital inputs. Dialogue with stakeholders during the conduct of this study has revealed that successful firms in the sector have evolved by successfully confronting the necessity to take advantage of available national and global opportunities to deploy unique skills, processes, ecological resources, geographical position, low-cost factor inputs, or such other market advantages as would produce innovative products of value to customers. The successful firms continually reshape effective demand, mastering currently available knowledge but emphasizing change due to internal knowledge dynamics, primarily by concentrating on experimentation and knowledge creation with available information, development and sharing of tacit knowledge, inventive modeling and model justification, and creative assembling of the lessons of experience. Such strategies are aimed at expanding capacity, market opportunity and profitability in the future by the continual introduction of creative approaches to knowledge creation and strategy development. Success is in itself dynamic and yields relatively greater employment of domestic capital over time, while increasing advantage for other suppliers and customers as well as government and other stakeholders, local and foreign. Successful overall knowledge creation for this purpose relies heavily on creation, communication, sharing and use of tacit knowledge in production and marketing. Firms in these areas are readily able to generate value while recognizing the benefits of unintended consequences that, with the tacit knowledge created, are the essence of the creative process of discovery of novel and improved technological standards, unique tacit knowledge, processes, products and marketing strategies on which successful competition relies.

Without the underlying pool of tacit knowledge, it becomes easy for others to imitate or adjust the activities of the Jamaican firm and to translate the knowledge into techniques that others can readily replicate. The copyright firms also utilize easily available public knowledge and techniques, but even then, the advantageous use of such public information also depends on the extent of unique knowledge, especially the tacit knowledge processes, possessed by the firm in the copyright sector. The reason is that what the firm does with public knowledge and generally-available techniques depends on its knowledge of the inner essentials of these techniques and its ability to apply them creatively in order to build advantage. Indeed, much public knowledge can only be decoded with a strong team preoccupied with the development of tacit knowledge in its own right. Transfer of public knowledge is important, but what counts is that firms build up the capital needed to deploy all knowledge, internal or external, to create new knowledge for sustainable development of comparative and competitive advantage – a process that is driven by accumulation of tacit knowledge. Moreover, and more important, it is not possible to store in public documents and well-known organization procedures most of the knowledge from the complex creative process of conceptualization, modeling, measurement, justification, problem-solving, practical implementation and knowledge creation that lead to new workable processes and products or marketing methods.

Most of this knowledge exists as part of the externalities generated through the practical experiences and interactions of work teams operating within the firm – teams that are expert in composition, able to deal with non-routine tasks and unexpected results; stable working groups of highly skilled professionals and dedicated novices with specific projects to develop and implement who are therefore involved in some combination of the following activities / processes: joint direct observation, reflection, dialogue, imitation, experimentation, comparison, and joint practice and implementation, which result in both individual and group-level competence.

The information and communication process relevant to this tacit knowledge is largely achieved by ensuring the existence of the relevant micro-communities of knowledge and tight project teams tackling complex problems aimed at innovation and knowledge creation. Most pointedly, it is achieved by the existence of regular and self-sustaining face-to-face interactions and deep socialization, devices of mentoring and dialogue, shared learning habits, methods of developing and routinely sharing intuition, information, and codes of interpersonal relations, and sharing of responsibilities. It is this process that typifies the domestic capital production process of the copyright sector.

Regarding the current data collection, analysis, and reporting system, there is insufficient recording of the multidimensional characteristics of the copyright sector. Moreover, existing official data, such as those used in this study, are only available on special demand rather than through a systematic routine data availability mechanism. This situation creates a drag on the routine conduct of data analysis by interested scholars and even by government. More important, given the historical neglect of the sector by policy makers, the situation creates a significant disconnect between national planning in the Medium Term Policy Framework, the annual budget exercise, and the activities defined in the sector. This limits development of evidence-based policy and strategic planning for sector development. Poor budgetary and development outcomes, associated with a weak impact on key development indicators, have been major consequences. To address this, the following are recommended:

- STATIN should be strengthened to better understand and use all relevant approaches, including a possible satellite account for the sector and participatory and qualitative approaches to data collection that bring all stakeholders into the data supply loop, thereby improving systems for consistent and routine sector reporting and monitoring.
- The University of the West Indies (Mona School of Business) and the University of Technology should be strengthened to act as custodians of datasets parallel to those of STATIN in order to facilitate speedy and routine access to data as well as policy-related analyses of the social and economic dynamics of the sector.

To address the lack of attention to key elements, such as music, a sector-wide planning process should be established, with emphasis on providing the institutional environment in which the data held by all partners can be exchanged on a routine basis. This process should incorporate all suitably-defined stakeholder representatives and each should have a clear mandate and opportunity to influence the direction of data analysis and policy. The key output should be a routinely updated comprehensive policy and implementation schedule that is costed and financed by various stakeholders, including government, with the program demonstrating clear links between information, sector activities, outputs, and indicators.

The costed plans should be fully integrated into the Medium-Term Policy Framework and the annual budget to ensure that they are linked to the resources made available by the Ministry of Finance over the medium term and to the information requirements and arrangements for their exchange within and between the development partners, sector ministries, the PIOJ, and the Ministry of Finance. Also, arrangements should be made for an annual joint sector review and reporting, complete with identification of capacity and institutional strengthening needs, including requirements for technical assistance, as necessary for the sector to yield optimal benefits for the Jamaican economy.

7.2. Copyright Policy

Given the evidence presented above of high resource productivity and the substantial scale and scope of the impact of the copyright sector on the economy, and given also the high level of underutilized potential within the sector and the wider economy, policies regarding further refinement and enforcement of

copyright should be treated as a matter of priority. Such strengthening of the copyright regime, together with the economic aspects of policy as suggested above, would provide greater incentives for innovation, creativity, and rapid diffusion of new technologies in all the sub-sectors – core, partial, interdependent and non-dedicated. A stronger regime about the full extent and personal advancement potential of the rights afforded by law, especially in the areas of enforcement and education, would prevent the widespread copying of creative works, which can undermine the returns on investment in innovation if such copying is not channeled to favor the innovation process itself.

Regarding enforcement, much of the focus at present is on the capacity of a centralized system of supports provided by the constabulary force and on the services of the copyright collective management societies. Both institutions should be strengthened as follows:

1. Expansion of the reach of the constabulary force, for example, through education programs and the strengthening and deployment of capacity at the level of local government in the areas of monitoring and public education, including the education of workers about the potential gains from innovative and creative activity in all segments of the industry as documented above.
2. Improvement of the capacity of the collective management societies, primarily by upgrading their e-business capacity in the areas of digital documentation, logging, and monitoring – especially in relation to better knowledge of the clients being served by the system – education on rights in all relevant sectors, and development of innovative ways to generate market opportunity for owners of copyright in all possible ways.

In combination with the investment programming identified above, such strengthening would enhance the level of innovative and creative activity and, hence, the flow of new products and processes that underlie the impact on the economy that is documented in this study and for which Jamaica is already well known. At the same time, there is a need to strengthen copyright policy relative to policies on competition, in the sense that greater emphasis should be devoted to upgrading the weak links in the copyright regimes (such as enforcement) and education on the links themselves.

Reliance on the measures used to rank sectors as presented above is justified by the key result reported that the estimated wage curve provides evidence of significant externalities in the context of a sociological floor to the marginal product of labor. This indicates that the marginal product of labor deviates from wages and implies corresponding deviations of both the rate of profit and the rate of return on imported inputs from their respective marginal products. This result leads to some insights regarding how the tension between copyright policy and competition policy should be resolved in Jamaica (and perhaps in similar economies).

Copyright is exclusionary by nature and therefore limits competition as traditionally conceived. Competition policy, as it is now being conceived and evolving in Jamaica, seeks to prevent restrictive commercial practices that create barriers to efficiency in production and, to a much lesser extent, in the diffusion of output and technologies. To ensure that such policies do not limit the drive towards creation, innovation and the development of a dense technology set in Jamaica, it would be generally appropriate for competition policy to restrict its attention to concerns not related to the creative process and innovation. Further, were the innovation process to be included in the domain of competition policy, it should only be insofar as resources are made available to ensure that rivalry and innovation are enhanced by the support of the policy for the investment process recommended above so as to augment the flow of new products and processes.

Such a strong statement of the policy bias requires justification. First, the results above raise doubts about the adequacy of the traditional view that (i) the motivation behind production of copyrighted works is the

narrow self-interest of the producer, and (ii) policy should therefore be preoccupied with questions about the evolution of monopoly in the product markets as a threat to pursuit of self-interest and, hence, to the operation of the law of demand. The estimates reported in Section VI underscore the existence of other barriers in the factor markets to the operation of the law of demand, and such barriers take precedence over the impact of untrammelled monopoly as a barrier to the development of Jamaica's capital stock. Instead of the potential conflict between monopoly outcomes and copyright, the estimates indicate that policy must mainly address the investments needed to eliminate the role of the average productivity of the self-employed and other similar barriers in the factors markets. In that regard, it should be noted that copyright output has some of the characteristics of a public good and long-term assets in that it embodies information that can be used without others being precluded from consuming it, and without all its value being utilized when applied in a specific round of production (Gallini and Trebilcock, 1998:17).

From a production perspective, appropriate skill is needed to imitate an innovation that is copyrightable and that provides a substantial amount of protection of output independent of copyright. Nevertheless, both local and international imitation is possible in the absence of copyright. Considering all the evidence presented in this study, the main public interest in copyright output and in public policy regarding all three areas in which works can be copyrighted – art, fact and function – is in ensuring that such works are produced under conditions that do not diminish the urge to creative expression and that, instead, stimulate development and use of new capital inputs, products and processes, raise profits in the sector, and further increase savings and investment in a dynamic sequence to the highest possible levels. The unregulated evolution of many key dimensions of the core copyright industries of Jamaica, such as music and theater, has led to an explosion of creativity and suggests that the argument of Dasgupta and Stiglitz (1980) and McFetridge (1998) holds: *ceteris paribus*, the extent of rivalry in innovation markets depends partly on the strengthening of intellectual property rights, and the promise of stronger rights tends to attract more rivals. Sound policy could be optimized accordingly, and McFetridge (1998) observes that this optimization is best achieved when all potential innovators have access to the same high level of knowledge.

In particular, by focusing on investment in domestic real capital, knowledge and skill acquisition, and access to the global pool through greater e-competence in the sector as recommended above, the policy would also ensure that greater tacit knowledge is created by all businesses and creators and, ultimately, that greater benefits are generated for all without detracting from any other sector or participant. Such benefits are likely to far outweigh any gains in efficiency that would accrue from resolving the tension between copyright and competition policy in favor of the latter. At the same time, the relevant investments as defined above would push the economy to the stage of development where the advantages from resolving the tension between competition and intellectual property rights become interesting. Currently in Jamaica, they are not and it is also not self-evident that copyright creates significant inhibiting market power that should be of concern at this time. One reason for this is that major segments of the sector, such as music, were developed by subsistence workers who tend to liberally share the ideas underlying copyright to facilitate independent and highly-competitive creation or expression of these ideas.

In the current context of granting incentives for import-intensive investments, the gains from addressing the barriers in the factor markets are achieved when policy focuses on reducing tax rates in the sector and re-allocating current inducements and public infrastructure development to the sector in order to increase profits and the level of private investment in fixed and working domestic capital, especially in the adoption or creation of tacit knowledge, relative to imported real capital. Such investments raise the productivity of imported real capital and the efficiency of use of foreign exchange and make the growth process more sustainable.

In this regard, rapid technological and product change, long a hallmark of the music industry, has emerged as a hallmark of the information technology on which the copyright sector relies. One of the major gains from such policy to promote creation of tacit knowledge in the sector would be growth in the domestic capacity to acquire or develop information and, therefore, in the capacity to adopt international technologies on the one hand, and to adapt and create new profitable technologies and products on the other. Such gains in creativity from social cooperation are likely to increase the capacity of the investor to adopt forms of product distribution that allow the gains from innovation to be extracted before copyright infringements occur, or even when they occur. This would tend to substantially offset much of the loss that might result from individual failure to stake a claim to a single expression of an idea or convert such failure into a loss-leader in the context of a relatively weak capacity to enforce copyright that is evident in the data assembled above on the collective management and enforcement process.

References

- Allen Consulting Group. 2001. *The Economic Contribution of Australia's Copyright Industries*. Report commissioned by the Australian Copyright Council and the Centre for Copyright Studies.
- Braunstein, Y.M. 1989. *Economics of Intellectual Property Rights in the International Arena*, Journal of the American Society for Information Science. 40(1):12-16.
- Chang, K. and Chen, W. 1998. *Reggae Routes: The Story of Jamaican Music*. Kingston: Ian Randle Publishers.
- Cheung, S.N.S. 1986. *Property Rights and Invention, Research in Law and Economics: The Economics of Patents and Copyrights*. (8): 5-18.
- Clancy, P., and Twomey, M. 1997. *Clusters in Ireland: The Irish Popular Music Industry: An Application of Porter's Cluster Analysis*. Research Series. Paper No. 2. National Economic and Social Council.
- Cornish, W.R. (1996) (3rd ed.). *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights*. London: Sweet & Maxwell.
- Forstner, H. and Balance, R. (1990). *Competing in a Global Economy: An Empirical Study on Specialization and Trade in Manufactures*. Prepared for the United Nations Industrial Development Organization. London: Unwin Hyman.
- Government of Jamaica (1993). *The Copyright Act, No. 4 of 1993*.
- Gallini, N.T. and Trebilcock, M.J. (1998). *Intellectual Property Rights and Competition Policy: A Framework for the Analysis of Economic and Legal Issues*, in Anderson, R.D and Gallini, N.T. (Eds.) *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*. Calgary: University of Calgary Press, pp. 17-61.
- Guidberg, Hans Hoegh (1994) (2nd ed.) *Copyright: An Economic Perspective*. Sydney: Australian Copyright Council.
- James, V. (2006a). *Labour, Domestic Capital and Growth: Key Developments and Implications for Regional Industrial Integration* in Dennis Benn and Kenneth Hall (eds.), *Production Integration in CARICOM: From Theory to Action*. Kingston: Ian Randle (August).
- James, V. (2006b). *Import Productivity Growth, Capital Deepening and Caribbean Development: Some Theoretical Insights*, in Anthony Birchwood and Dave Serratan (eds.), *Finance and Real Development in the Caribbean*, UWI, St. Augustine: Publishers: Caribbean Centre for Monetary Studies (September).
- James, V. (2007). *The Impact of UWI on the Demand for Research and Professional Services*. A Report prepared for the Strategic Transformation Team Secretariat, UWI, Mona, Jamaica.
- Jussawalla, M. (1992). *The Economics of Intellectual Property in a World without Frontiers. A Study of Computer Software*. New York: Greenwood Press.

- Lewis, W.A. (1964). *Jamaica's Economic Problems*, The Gleaner, Kingston: The Gleaner Company, (September) (a series).
- Marques-Mees, V., Funes, M.R. and Yaber, B. (2007). *The Economic Contribution of Copyright-Based Industries in Mexico*. Report prepared for WIPO. Geneva.
- McFetridge, D.G. (1998). Intellectual Property, *Technology Diffusion and Growth*, in Anderson, R.D and Gallini, N.T. (Eds.) *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*. Calgary: University of Calgary Press, pp.65-104.
- Picard, R.G., Tiovonen, T.E., and Gronlund, M. (2003). *The Contribution of Copyright and Related Rights to the European Economy*, Business Research and Development Centre. Report prepared for the European Union by the Media Group, Turku School of Economics and Business Administration, Turku.
- Rey, P. and Winter, R.A. (1998). *Exclusivity Restrictions and Intellectual Property*, in Anderson, R.D and Gallini, N.T. (Eds.) *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*. Calgary: University of Calgary Press, pp.159-201.
- Robles, M., Hernandez, M., De la Roca, J., Webber, M. and Torero, M. (2002) *Informal Sector Study for Jamaica*. Report prepared for the Inter American Development Bank, Kingston, Jamaica.
- Sterling, J.A.L. (1999). *World Copyright Law*. London: Sweet & Maxwell.
- Silberston, Aubrey (1998) *The Economic Importance of Copyright*. Proceedings – Creativity & Intellectual Property Rights: Evolving Scenarios and Perspectives International Conference. (Vienna, Austria – July 12 –14, 1998) Brussels: Centro Internazionale Congressi.
- Topel, R. (1999). *Labour Markets and Economic Growth*. In Ashenfelter, O.C. and Card, D. (eds.) *Handbook of Labor Economics Vol. C*. Amsterdam: North-Holland., pp. 2943-2984.
- UIS (2005). *International Flows of Selected Cultural Goods and Services, 1994-2003*. http://www.uis.unesco.org/template/pdf/csc/IntlFlows_EN.pdf, accessed May 11, 2007. Montreal: UNESCO Institute for Statistics.
- WIPO (2003). *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*. Geneva.
- WIPO (2006). *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries: Creative Industries Series No. 1*. Geneva.
- WTO (1997). *Agreement on Trade-Related Aspects of Intellectual Property Rights. (TRIPS Agreement)* Geneva.

Annex I: Wage Growth Rate All Sectors, 2001 to 2005

Table I: Average Annual Earnings Growth, Large Establishment Surveys 2003-2005

INDUSTRY	JIC CODE (1987)	ANNUAL AVERAGE					Average Annual Earnings Growth 2001-2005
		2001	2002	2003	2004	2005	
ALL SECTORS	1 TO 9	7953.49	8468.90	9023.13	9631.46	10399.96	7%
TOTAL MINING	1	10515.58	9873.25	20259.90	21421.14	23043.49	2%
Bauxite and Alumina	16	10633.06	9991.94	20648.95	22118.54	23819.10	2%
Other Mining	17	7299.95	9671.77	7244.77	7503.32	8456.23	3%
TOTAL MANUFACTURING	2/3	5725.22	5974.81	7162.25	7909.56	8596.21	8%
TOTAL FOOD, BEVERAGES and TOBACCO	21	6390.06	6340.37	7383.03	8302.20	9039.66	7%
Sugar	21421	3190.88	3497.31	5724.93	6031.87	6981.42	10%
Other Food Manufacture	211/214	7945.32	7696.16	6840.73	7909.78	7903.79	4%
Beverages	215	9296.05	9338.55	12074.56	14919.92	17471.87	14%
Tobacco Manufacture	216	8811.68	9511.65	22304.08	26757.99	31133.64	15%
TOTAL TEXTILES, WEARING APPAREL, LEATHER AND FOOTWEAR	22	2595.53	2889.19	3727.35	3731.68	4577.31	11%
Textiles	221/222	5303.49	5233.41	5245.26	5771.17	6314.11	6%
Wearing Apparel	223	2495.64	2798.73	3677.96	3665.91	4536.48	12%
Leather and Leather Products and Footwear	224/225	3915.31	4634.27	3787.75	4318.47	4417.35	12%
TOTAL WOOD and WOOD PRODUCTS	23	4059.58	3702.60	5606.55	6082.33	5837.27	-3%
Wood and Cork Products (Other than Furniture)	231	4438.45	3544.41	4378.62	5767.29	5432.88	2%
Furniture	232/233	4058.27	3707.56	6300.42	6193.81	5885.47	-5%
TOTAL PAPER AND PRINTING	24	8291.56	9579.79	8573.48	9539.32	10016.46	11%
Paper and Paper Products	241	7156.33	6788.07	9792.01	10078.34	10539.11	1%
Printing and Publishing	242	8656.42	10496.74	8028.89	9271.11	9734.50	14%
TOTAL CHEMICALS, CHEMICAL, RUBBER AND PLASTIC PRODUCTS	25/26/27	8950.02	9062.78	10137.74	11027.06	11060.58	3%
Industrial Chemicals	251	8889.41	10317.13	10843.49	11841.95	11705.21	8%
Other Chemical Products	253	9011.60	8001.46	9893.42	10703.46	10729.74	3%
Petroleum and Asphalt Products	261	23583.12	21981.24	29337.75	29946.00	27862.97	-4%
Rubber Products	271	4459.48	4930.09	3581.88	4512.12	5094.67	16%

INDUSTRY	JIC CODE (1987)	ANNUAL AVERAGE					Average Annual Earnings Growth 2001-2005
		2001	2002	2003	2004	2005	
Plastic Products	272	5059.71	5392.98	5846.25	6734.83	7403.89	11%
TOTAL NON-METALLIC MINERAL PRODUCTS	28	8176.69	8141.66	9727.34	10254.49	12047.06	7%
Earthenware, Glass and Glass Products	281	3395.12	2788.05	4558.04	5566.68	6823.88	9%
Other Non-Metallic Mineral Products and Cement	289	5044.67	5307.86	5928.15	6381.10	7471.81	10%
OTHER MANUFACTURING (EXCLUDING METAL PRODUCTS, MACHINERY AND EQUIPMENT)	29	3528.31	3682.40	3648.64	3794.13	4306.57	7%
BASIC METAL AND FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	3	7760.10	8901.53	8326.72	9704.59	11258.30	16%
TOTAL ELECTRICITY, GAS AND WATER	4	12963.17	14258.30	14429.22	15654.07	16010.91	7%
CONSTRUCTION	5	5436.10	5102.67	8242.00	9902.33	10875.23	8%
TOTAL TRADE, HOTELS AND RESTAURANTS	6	5422.18	6283.74	7429.00	7903.71	8323.84	9%
Wholesale Trade	61	6811.96	9569.02	12808.00	14260.16	15781.37	21%
Retail Trade	62	6484.29	7352.05	7030.00	7407.35	7553.25	7%
Restaurants	631	3548.64	3635.88	3686.00	3730.24	3525.75	-2%
Hotels, Rooming Houses and Lodging Places	632	4962.98	3657.84	6620.00	6835.02	7214.76	-6%
TOTAL TRANSPORT, STORAGE AND COMMUNICATIONS	7	17260.17	18581.12	11731.00	11736.60	13088.26	6%
TOTAL TRANSPORT AND STORAGE	71	17527.97	18958.58	9863.00	10151.14	11421.43	8%
Land Transport (Other than Railways)	711	3829.75	4154.05	6861.00	7191.20	8035.38	8%
Water Transport	712	11987.32	11889.30	13239.00	14748.42	18159.92	11%
Air Transport	713	29314.38	31402.90	13404.00	12766.12	13844.43	4%
Services incidental to Transport	719	7104.15	8037.62	9073.00	9326.69	10007.91	8%
COMMUNICATIONS	72	16420.91	17192.77	18856.00	18054.74	19381.90	1%
TOTAL FINANCING, INSURANCE, REAL ESTATE AND BUSINESS SERVICES	8	10455.37	10747.92	11750.00	12193.82	13141.84	5%
Financial Institutions	81	13529.02	13452.51	17709.00	19667.49	21267.67	6%
Insurance	82	12338.69	13320.87	15611.00	15352.70	16610.98	5%

Table I: Average Annual Earnings Growth, Large Establishment Surveys 2003-2005							
INDUSTRY	JIC CODE (1987)	ANNUAL AVERAGE					Average Annual Earnings Growth 2001-2005
		2001	2002	2003	2004	2005	
Real Estate and Business Services	83	6391.17	6704.25	7465.00	7270.61	8053.41	4%
COMMUNITY, SOCIAL AND PERSONAL SERVICES (EXCLUDING PRIVATE EDUCATION SERVICES)	9	6520.96	7071.24	8321.00	8094.71	9144.78	16%

Annex II: Detailed Structure of the Contribution of Copyright to GDP in Jamaica

Table II: Detailed Structure of the Contribution of Copyright to GDP in Jamaica – Copyright Factors, Multipliers and Adjustment Factors for Self-Employment and Earnings Growth from 2001 to 2005

	Copyright Factor	Multiplier	Wages and Salaries (J\$ million)	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries (J\$ million)
Core							
a. Press and Literature							1,797.9
Publishing of Newspapers	1.00	1.82	913.9	1.08		1.00	972.2
Publishing of Magazines and Books	1.00	1.64	59.9	1.06		1.00	63.7
Printing unconnected to Publishing	1.00	1.54	599.5	1.06		1.00	595.2
Advertising Materials such as Billboards	1.00	1.79	146.7	1.14		1.00	166.7
b. Music, Theatrical Productions, Opera							918.33
Manufacture of Audio and Video Records and Tapes/Recorded Music Using Census 2001 Adjusted at Rate of Wage Inflation	1.00	2.77	23.7	1.00	0.07	1.31	31.07
Authors, Music Composers, Independent Artists	1.00	1.33	431.0	1.90	0.16	1.81	780.39
Music Component of Authors, Music Composers and Independent Artists	1.00	1.33	357.7	1.00	0.16	1.81	647.72
Dance Studios	1.00	1.33	61.4	1.00	0.16	1.81	111.17
Theater and Related Entertainment Services	1.00	1.33	70.9	1.00	0.16	1.81	128.37
c. Motion Picture and Video Production, Distribution and Projection							118.96
Motion Picture Production	1.00	1.58	15.9	1.00	0.16	1.81	34.22
Motion Picture and Video Distribution	1.00	1.58	46.8	1.00	0.16	1.81	84.74
d. Radio and Television Broadcasting							1,655.32
General (National and Other) Radio and TV Broadcasting, including Independent Producers, Satellite TV and Other Services	1.00	1.46	918.7	1.35		1.00	1,241.49
Cable Television	0.25	4.25	413.8	1.00		1.00	413.83
e. Photography							340.40
Census Estimates of Photographic Studios, Agencies, etc.	1.00	1.59	188	1.00	0.16	1.81	340.40
f. Software and Databases							388.05
Data Processing and Related Publishing	1.00	1.68	330.0	1.00	0.04	1.17	388.05
g. Graphic Arts							207.08
Museums and Art Galleries	1.00	1.59	41.1	1.00	0.16	1.81	74.42
Art Painters, Sculptors and Other, Own-Account Artists	0.17	1.59	73.3	1.00	0.16	1.81	132.67
h. Advertising Services							371.6
Advertising Agencies	1.00	1.89	327.0	1.14	0.04	1.00	371.59
i. Copyright Collective Management Societies							
JACAP	1.00	1.68	15.3	1.0	-	1.00	15.3
JFM	1.00	1.68	3.1	1.0	-	1.0	3.10
JAMCOPY	1.00	1.68	1.0	1.0	-	1.0	1.00
JCS	1.00	1.68	2.1	1.0	-	1.0	2.10
JCS	1.00	1.68	1.0	1.0	-	1.0	1.00
OCID	1.00	1.68	1.0	1.0	-	1.0	1.00
Total Core Copyright							5,810.91
Interdependent							
Core Interdependent							41.83
Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	1	2.77	2.5	1.0	0.16	1.81	4.53
Manufacture of Computers and Equipment	1	2.77	20.6	1.0	0.16	1.81	37.30
Partial Interdependent							1,173.49
Manufacture of Optical Instruments	1	2.77	9.5	1.0	0.16	1.81	17.20

Table II: Detailed Structure of the Contribution of Copyright to GDP in Jamaica – Copyright Factors, Multipliers and Adjustment Factors for Self-Employment and Earnings Growth from 2001 to 2005

	Copyright Factor	Multiplier	Wages and Salaries (J\$ million)	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries (J\$ million)
and Photographic Equipment							
Manufacture of Certain Articles of Paper and Paperboard	1	2.77	44.3	1.0	0.01	1.04	46.10
Rental of Radio, Television	1	3.35	7.8	1.0	0.04	1.17	9.12
Rental and Leasing of Data Processing Equipment	1	3.35	1.9	1.0	0.04	1.17	2.22
Wholesale and Retail of the Interdependent Copyright Industries, of which:							1,098.84
Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	1	3.79	70.6	1.0	0.07	1.31	92.54
Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment (including Parts and Accessories)	1	3.79	408.0	1.0	0.07	1.31	534.80
Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	1	3.79	12.2	1.0	0.07	1.31	15.99
Other Miscellaneous Wholesalers and Retailers, including:	0.05	3.79	347.5	1.0	0.07	1.31	455.50
Retail Stores dealing in Books, Magazines and Stationery (Bookshops)							
Retailers dealing in Antiques and Art							
Total Interdependent Copyright Partial Copyright Sectors							1,215.31
Manufacture of Certain Apparel, Textiles and Footwear, and Related Items			7.41				11.47
Manufacture of Made-up Textile Articles	0.005	2.77	0.4	1.0	0.06	1.26	0.51
Manufacturing of Carpets and Rugs	0.005	2.77	0.04	1.0	0.06	1.26	0.05
Manufacture of Textiles (n.e.c.)	0.005	2.77	0.2	1.0	0.06	1.26	0.19
Manufacture of Wearing Apparel and Crocheted Goods	0.005	2.77	0.6	1.0	0.12	1.57	1.31
Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	0.005	2.77	1.4	1.0	0.12	1.57	2.18
Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	0.005	2.77	2.0	1.0	0.12	1.57	3.22
Manufacture of Clothing (except Footwear and Fur Apparel) for Children	0.005	2.77	0.70	1.0	0.12	1.57	1.10
Manufacture of Headgear	0.005	2.77	0.02	1.0	0.12	1.57	0.03
Manufacture of Other Wearing Apparel (n.e.c.)	0.005	2.77	1.02	1.0	0.12	1.57	1.60
Manufacture of Luggage and Handbags	0.005	2.77	0.01	1.0	0.12	1.57	0.01
Manufacture of Boots and Shoes from Leather Fabrics and Other Materials except Wood, Rubber and Plastic	0.005	2.77	0.79	1.0	0.12	1.57	1.14
Manufacture of Other Leather Products	0.005	2.77	0.05	1.0	0.12	1.57	0.07
Manufacture of Footwear made of Rubber, Plastic and Other Materials (n.e.c.)	0.005	2.77	0.03	1.0	0.12	1.57	0.05
Manufacture of Furniture			66.77				54.38
Manufacture of Wooden Furniture	0.05	2.77	65.0	1.0	(0.05)	0.81	52.94
Manufacture of Metal Furniture	0.05	2.77	1.55	1.0	(0.05)	0.81	1.26
Manufacture of Rattan (Wicker) Furniture	0.05	2.77	0.2	1.0	(0.05)	0.81	0.16
Manufacture of Household Goods, China and Glass			0.96				1.45
Manufacture of Plastic Containers	0.005	2.77	0.45	1.0	0.11	1.52	0.74

Table II: Detailed Structure of the Contribution of Copyright to GDP in Jamaica – Copyright Factors, Multipliers and Adjustment Factors for Self-Employment and Earnings Growth from 2001 to 2005

	Copyright Factor	Multiplier	Wages and Salaries (J\$ million)	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage Inflation Factors	Adjusted Wages and Salaries (J\$ million)
and Cups							
Manufacture of Plastic Dinner Ware and Table Ware	0.005	2.77	0.02	1.0	0.11	1.52	0.03
Manufacture of Plastic Products (n.e.c.)	0.005	2.77	0.26	1.0	0.11	1.52	0.43
Manufacture of Glass	0.005	2.77	0.06	1.0	0.09	1.41	0.06
Manufacture of Glass Products	0.005	2.77	0.02	1.0	0.09	1.41	0.03
Manufacture of Non-Structural Ceramic Ware (China, Stone, Earthenware, etc.)	0.005	2.77	0.10	1.0	0.10	1.46	0.14
Manufacture of Jewelry, Watches and Related Articles			14.43				19.37
Manufacture of Jewelry and Related Articles	0.25	2.77	13.5	1.0	0.07	1.31	17.70
Manufacture of Watches and Clocks	0.25	2.77	0.93	1.0	0.16	1.81	1.67
Interior Decorating and Carpets			1.59				2.17
Interior Decorating	0.02	1.66	1.1	1.0	0.08	1.36	1.43
Flooring (Parquet) and Carpeting	0.02	1.88	0.54	1.0	0.08	1.36	0.73
Engineering, Architectural and Technical (including Surveying)			360.0				421.1
Engineering, Architectural and Technical (including Surveying)	0.5	1.88	360.0	1.0	0.04	1.17	421.15
Wholesale and Retail of Partial Copyright Industries			396.3				524.6
Wholesale of Cotton, Textile Yarn and Fabric	0.05	3.79	1.1	1.0	0.21	2.14	2.25
Wholesale of Clothing	0.05	3.79	0.35	1.0	0.21	2.14	0.75
Wholesale of Footwear	0.05	3.79	0.38	1.0	0.21	2.14	0.81
Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c.)	0.05	3.79	2.8	1.0	0.21	2.14	5.89
Wholesalers of Office Furniture and Equipment	0.05	3.79	0.6	1.0	0.21	2.14	1.20
Wholesalers of Household Furniture and Equipment	0.05	3.79	0.9	1.0	0.21	2.14	1.90
Wholesalers of Furniture and Fittings	0.05	3.79	0.2	1.0	0.21	2.14	0.42
Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	0.05	3.79	5.2	1.0	0.07	1.31	6.82
Retail Stores dealing in Household Appliances (Electrical and Non-electrical)	0.05	3.79	5.3	1.0	0.07	1.31	6.86
Retail Stores dealing in Furniture	0.05	3.79	11.1	1.0	0.07	1.31	14.55
Retail Stores dealing in Jewelry, Watches and Clocks	0.05	3.79	4.3	1.0	0.07	1.31	5.57
Retail Stores dealing in Textiles, Wearing Apparel and Other Personal Effects	0.05	3.79	15.8	1.0	0.07	1.31	20.36
Retail Stores dealing in Footwear	0.05	3.79	1.3	1.0	0.07	1.31	1.70
Miscellaneous Retailers, including Retail Stores dealing in Sports and Recreational Goods	0.05	3.79	347.5	1.0	0.07	1.31	455.50
Total Partial Copyright							1,032.46
Non-Dedicated Copyright							
General Distributive Trades			675.1				1,875.4
Distributive Trades	0.05	3.79	675.1	2.8	-	1.0	1,875.38
General Transportation, Storage, Communications and Business Services			1,434.3				1,683.5
Public Passenger Transport by Road	0.057	1.93	71.3	1.0	0.06	1.4	96.93
Private Passenger Transport by Road	0.057	1.93	197.2	1.0	0.08	1.4	288.32
Freight Transport by Road	0.057	1.93	62.1	1.0	0.08	1.4	84.53
Supporting Services to Land Transport	0.057	1.93	6.6	1.0	0.06	1.4	11.71
Ocean and Coastal Water Transport	0.057	1.93	15.7	1.0	0.11	1.5	23.88

Table II: Detailed Structure of the Contribution of Copyright to GDP in Jamaica – Copyright Factors, Multipliers and Adjustment Factors for Self-Employment and Earnings Growth from 2001 to 2005

	Copyright Factor	Multiplier	Wages and Salaries (J\$ million)	Self-Employment Adjustment Factor	Earnings Growth Rate	Wage inflation Factors	Adjusted Wages and Salaries (J\$ million)
Supporting Services to Water Transport	0.057	1.93	18.8	1.0	0.11	1.5	30.03
Air Transport	0.057	7.93	476.0	1.0	0.04	1.2	566.79
Supporting Services to Air Transport	0.057	1.93	35.9	1.0	0.04	1.2	42.01
Storage and Warehousing	0.057	3.32	6.5	1.0	0.08	1.4	8.94
Communication	0.057	4.25	427.9	1.0	-	1.0	427.90
Other Business Services, Accounts Audit and Bookkeeping and Legal	0.057	1.86	113.3	1.0	0.04	1.2	132.56
Total Non-Dedicated			2,109.43				3,558.89
Total Copyright Industries			2,109.4				11,617.6
Jamaican Economy							

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Core										
a. Press and Literature	1,797.9	128.9	107.5	176.7	878.9	4,095.7	7,188.5	3,090.8	10.6%	0.51%
Publishing of Newspapers	972.2	103.9	52.3	129.47	512.6	1,653.4	3,423.9	1,770.5	5.1%	0.29%
Publishing of Magazines and Books	63.7	2.02	1.3	5.00	32.3	271.1	375.4	104.4	0.4%	0.02%
Printing not connected to Publishing	595.2	15.8	30.3	27.68	247.6	1,758.8	2,677.7	918.0	3.2%	0.15%
Advertising Materials such as Billboards	156.7	7.0	23.5	14.20	86.5	411.5	705.4	298.0	1.0%	0.05%
b. Music, Theatrical Productions, Opera	918.33	59.15	62.91	100.78	122.31	1,799.20	3,063.41	1,263.5	4.35%	0.21%
Manufacture of Audio and Video Records and Tapes/Recorded Music using Census 2001 adjusted at rate of wage inflation	31.07	5.8	16.6	5.78	26.1	253.5	340.3	66.0	0.3%	0.01%
Authors, Music Composers, Independent Artists	780.39	46.9	40.7	83.56	64.1	1,359.4	2,395.1	1,035.7	3.6%	0.17%
Music Component of Authors, Music Composers and Independent Artists	647.72	39.0	33.8	69.35	59.8	1,128.3	1,987.9	859.6	3.0%	0.14%
Dance Studios	111.17	6.7	6.8	11.90	12.0	193.7	341.2	147.5	0.5%	0.02%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Trailer and Related Entertainment Services	128.37	7.7	6.7	12.75	13.8	223.8	394.0	170.4	0.6%	0.03%
c. Motion Picture and Video Production, Distribution and Projection	118.96	10.33	7.21	13.87	38.07	545.85	734.42	188.4	0.6%	0.03%
Motion Picture Production	34.22	2.97	2.1	3.89	11.0	167.0	211.3	54.2	0.2%	0.01%
Motion Picture and Video Distribution	84.74	7.36	5.1	9.88	27.1	388.8	523.1	134.2	0.5%	0.02%
d. Radio and Television Broadcasting	1,655.32	217.11	98.42	615.64	991.56	2,094.20	5,532.24	3,578.0	12.3%	0.59%
General (National and Other) Radio and TV Broadcasting, including Independent Producers, Satellite TV and Other Services	1,241.49	13.8	74.9	190.27	236.9	1,460.9	3,296.2	1,817.3	6.3%	0.30%
Cable Television	413.83	143.3	23.6	425.4	754.7	633.3	2,264.0	1,760.7	6.1%	0.29%
e. Photography	340.40	4.14	0.64	3.50	193.60	658.19	1,200.48	542.3	1.9%	0.09%
Census Estimates of Photographic Studios, Agencies, etc.	340.40	4.14	0.6	3.50	193.6	658.2	1,200.5	542.3	1.9%	0.09%
f. Software and Databases	386.05	15.26	17.19	24.97	203.57	352.16	999.25	647.0	2.2%	0.11%
Data Processing and Related Publishing	386.05	15.3	17.2	24.97	203.57	352.2	999.2	647.0	2.2%	0.11%
g. Graphic Arts	207.08	2.52	0.39	2.13	117.78	400.41	730.31	329.9	1.1%	0.05%
Museums and Art Galleries	74.42	0.9	0.1	0.77	42.3	143.9	252.4	118.6	0.4%	0.02%
Art Painters, Sculptors and Other Own-Account Artists	132.67	1.6	0.2	1.37	75.5	256.5	487.9	211.3	0.7%	0.03%
h. Advertising Services	371.6	31.0	3.6	28.2	267.8	1,488.9	2,191.2	702.4	2.4%	0.12%
Advertising Agencies	371.58	31.03	3.6	28.18	267.8	1,488.9	2,191.2	702.4	2.4%	0.12%
i. Copyright Collective Management Societies	15.3	0.5	0.7	1.0	3.8	14.0	39.6	21.4	0.07%	0.004%
JACAP	3.10	0.1	0.1	0.20	1.6	2.6	6.0	5.2	0.02%	0.001%
JFM	1.00	0.0	0.0	0.06	0.5	0.9	2.6	1.7	0.01%	0.000%
JAMCOPY	2.10	0.1	0.1	0.14	1.1	1.9	5.4	3.5	0.01%	0.001%
JCS	1.00	0.0	0.0	0.06	0.5	0.9	2.6	1.7	0.01%	0.000%
OCID	8.10	0.3	0.4	0.52	—	7.38	20.97	0.3	0.03%	0.002%
Total Core Copyright	5,810.51	470.05	298.64	956.71	2,817.45	11,408.52	21,777.81	10,363.77	35.7%	1.7%
Interdependent	Adjusted Wages and Salaries, 2005 J\$ Million	Compensation for Social Security	Indirect Taxes	Depreciation	Operating Surplus	Intermediate Inputs	Gross Output	Contributions to GDP	Share of Copyright GDP	Share of GDP
Core Interdependent	-41.83	7.78	22.37	7.78	-35.99	341.41	458.14	115.8	0.40%	0.019%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Line Telegraphy	4.53	0.8	2.4	0.94	3.9	38.9	49.6	12.5	0.043%	0.002%
Manufacture of Computers and Equipment	17.30	8.9	20.0	6.94	22.1	304.5	406.6	103.2	0.356%	0.017%
Partial Interdependent	1,173.49	128.73	904.32	126.46	2,046.48	2,633.84	7,014.79	4,379.48	15.1%	0.724%
Manufacture of Optical Instruments and Photographic Equipment	17.20	3.2	9.2	3.20	14.8	140.4	186.4	47.6	0.164%	0.008%
Manufacture of Certain Articles of Paper and Paperboard	48.10	6.0	24.7	8.58	39.7	376.3	504.9	127.6	0.439%	0.021%
Rental of Radio-Television	9.12	0.41	0.66	11.64	8.70	37.98	68.41	30.5	0.106%	0.005%
Rental and Leasing of Data Processing Equipment	2.22	0.10	0.16	2.84	2.12	9.23	16.65	7.4	0.026%	0.001%
Wholesale and Retail of the Interdependent Copyright Industries, of which:	1,066.84	110.45	869.65	100.20	1,981.19	2,070.03	6,236.38	4,166.34	14.3%	0.69%
Retail Stores dealing in Radio, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	92.54	5.81	73.24	8.44	166.65	174.33	525.21	350.9	1.208%	0.056%
Retail Stores dealing in Calculators, Computers, Typewriters and Other Office Equipment (including Parts and Accessories)	534.60	56.98	423.20	48.77	964.24	1,007.48	3,035.23	2,027.8	6.981%	0.335%
Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	15.99	1.60	12.66	1.48	28.63	39.13	90.76	60.6	0.209%	0.010%
Other Miscellaneous Wholesalers and Retailers, including:	455.50	49.27	369.59	41.54	821.26	856.09	2,585.16	1,727.1	5.946%	0.285%
Retail Stores dealing in Books, Magazines and Stationery (Bookshops)									0.000%	0.000%
Retailers Dealing in Antiques and Art									0.000%	0.000%
Total Interdependent Copyright	1,216.31	138.51	926.70	134.24	2,082.47	2,975.26	7,472.93	4,496.23	15.5%	0.74%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Partial Copyright Sectors	Adjusted Wages and Salaries, 2005 J\$ Million	Compensation for Social Security	Indirect Taxes	Depreciation	Operating Surplus	Intermediate Inputs	Gross Output	Contributions to GDP	Share of Copyright GDP	Share of GDP
Manufacture of Certain Apparel, Textiles and Footwear, and related items	11.47	0.63	1.63	1.59	1.51	52.22	69.05	16.83	0.06%	0.003%
Manufacture of Made-up Textile Articles	0.51	0.07	0.07	0.07	0.07	2.33	3.09	0.75	0.003%	0.000%
Manufacturing of Carpets and Rugs	0.05	0.00	0.01	0.01	0.01	0.22	0.29	0.07	0.000%	0.000%
Manufacture of Textiles (n.e.c.)	0.19	0.01	0.03	0.02	0.03	0.86	1.16	0.28	0.001%	0.000%
Manufacture of Wearing Apparel and Crocheted Goods	1.31	0.06	0.16	0.19	0.17	5.97	7.90	1.93	0.007%	0.000%
Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	2.18	0.12	0.30	0.31	0.29	9.60	13.10	3.29	0.011%	0.001%
Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	3.22	0.16	0.44	0.46	0.42	14.62	19.39	4.73	0.016%	0.001%
Manufacture of Clothing (except Footwear and Fur Apparel) for Children	1.10	0.08	0.15	0.18	0.15	5.00	6.62	1.62	0.006%	0.000%
Manufacture of Headgear	0.03	0.002	0.004	0.004	0.004	0.14	0.18	0.04	0.000%	0.000%
Manufacture of Other Wearing Apparel (n.e.c.)	1.60	0.09	0.22	0.23	0.21	7.29	9.60	2.35	0.008%	0.000%
Manufacture of Luggage and Handbags	0.01	0.001	0.003	0.001	0.002	0.07	0.09	0.02	0.000%	0.000%
Manufacture of Boots and Shoes from Leather, Fabrics and Other Materials except Wood, Rubber and Plastic	1.14	0.04	0.22	0.13	0.14	5.26	6.91	1.69	0.006%	0.000%
Manufacture of Other Leather Products	0.07	0.003	0.01	0.01	0.01	0.34	0.45	0.11	0.0004%	0.00002%
Manufacture of Footwear made of Rubber, Plastic and Other Materials, (n.e.c.)	0.05	0.002	0.01	0.005	0.01	0.23	0.30	0.07	0.0002%	0.000%
Manufacture of Furniture	54.38	0.80	6.13	4.81	44.66	222.64	588.75	110.78	0.38%	0.02%
Manufacture of Wooden Furniture	52.94	0.78	5.67	4.68	43.48	216.73	579.91	107.6	0.371%	0.018%
Manufacture of Metal Furniture	1.26	0.02	0.14	0.11	1.04	5.17	7.74	2.6	0.009%	0.000%
Manufacture of Rattan (Wicker) Furniture	0.18	0.003	0.02	0.02	0.15	0.73	1.10	0.4	0.001%	0.0001%
Manufacture of Household Goods, China and Glass	1.45	0.14	0.26	0.28	2.30	7.48	11.91	4.43	0.02%	0.001%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Manufacture of Plastic Containers and Cups	0.74	0.08	0.15	0.12	1.16	8.09	8.35	2.3	0.008%	0.000%
Manufacture of Plastic Dinner Ware and Table Ware	0.03	0.003	0.01	0.01	0.05	0.16	0.26	0.1	0.000%	0.000%
Manufacture of Plastic Products (n.e.c.)	0.42	0.04	0.09	0.07	0.66	2.34	3.63	1.3	0.004%	0.000%
Manufacture of Glass	0.08	0.004	0.01	0.03	0.14	0.30	0.50	0.3	0.001%	0.000%
Manufacture of Glass Products	0.03	0.001	0.002	0.01	0.05	0.10	0.19	0.1	0.000%	0.000%
Manufacture of Non-Structural Ceramic Ware (China; Stone, Earthenware, etc.)	0.14	0.01	0.01	0.04	0.24	0.49	0.92	0.4	0.001%	0.000%
Manufacture of Jewelry, Watches and Related Articles	19.37	0.66	0.88	0.74	9.80	38.98	70.43	31.44	0.11%	0.01%
Manufacture of Jewelry and Related Articles	17.70	0.90	0.80	0.67	8.95	35.02	64.34	28.7	0.090%	0.005%
Manufacture of Watches and Clocks	1.67	0.08	0.08	0.08	0.85	3.37	6.09	2.7	0.008%	0.000%
Interior Decorating and Carpets	2.17	0.06	0.10	0.14	1.14	1.88	5.01	3.63	0.01%	0.001%
Interior Decorating	1.43	0.06	0.08	0.08	0.75	1.31	3.70	2.4	0.008%	0.000%
Flooring (Parquet) and Carpeting	0.73	0.03	0.03	0.05	0.39	0.67	1.90	1.2	0.004%	0.000%
Engineering, Architectural and Technical (including Surveying)	421.1	16.6	18.8	27.2	222.1	384.2	1,090.1	705.9	2.43%	0.12%
Engineering, Architectural and Technical (including Surveying)	421.15	16.6	18.8	27.24	222.1	384.2	1,090.1	705.9	2.430%	0.117%
Wholesale and Retail of Partial Copyright Industries	524.8	55.6	415.2	47.8	945.9	988.3	2,977.5	1,989.2	6.8%	0.33%
Wholesale of Cotton, Textile Yarn and Fabric	2.25	0.24	1.78	0.21	4.09	4.24	12.77	8.5	0.029%	0.001%
Wholesale of Clothing	0.75	0.08	0.59	0.07	1.35	1.41	4.26	2.8	0.010%	0.000%
Wholesale of Footwear	0.81	0.08	0.64	0.07	1.47	1.53	4.62	3.1	0.011%	0.001%
Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c.)	5.89	0.62	4.67	0.94	10.83	11.10	33.46	22.4	0.077%	0.004%
Wholesalers of Office Furniture and Equipment	1.20	0.13	0.95	0.11	2.18	2.26	8.81	4.6	0.016%	0.001%
Wholesalers of Household Furniture and Equipment	1.80	0.20	1.50	0.17	3.42	3.57	10.77	7.2	0.025%	0.001%
Wholesalers of Furniture and Fixings	0.42	0.04	0.33	0.04	0.75	0.79	2.37	1.6	0.005%	0.000%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Retail Stores dealing in Household Furnishings and Fixings including Carpets and Draperies	0.82	0.73	5.29	0.62	12.29	12.84	38.68	25.8	0.089%	0.004%
Retail Stores dealing in Household Appliances (Electrical and Non-Electrical)	5.68	0.73	5.45	0.63	12.41	12.96	39.06	26.1	0.090%	0.004%
Retail Stores dealing in Furniture	18.55	1.54	11.52	1.33	26.23	27.41	82.59	55.2	0.190%	0.009%
Retail Stores dealing in Jewellery Watches and Clocks	5.57	0.69	4.41	0.51	10.04	10.49	31.62	21.1	0.073%	0.003%
Retail Stores dealing in Textiles, Wearing Apparel and Other Personal Effects	26.38	2.16	16.13	1.86	36.75	36.46	115.65	77.3	0.268%	0.013%
Retail Stores dealing in Footwear	1.70	0.16	1.25	0.19	3.07	3.21	9.67	6.5	0.022%	0.001%
Miscellaneous Retailers, including Retail Stores dealing in Sports and Recreational Goods	455.59	46.27	360.50	41.54	821.25	858.09	2,585.16	1,727.1	5.946%	0.285%
Total Partial Copyright	1,032.46	74.46	442.85	82.50	1,226.24	1,693.81	4,807.72	2,858.53	9.6%	0.47%
Non-Dedicated Copyright	Adjusted Wages and Salaries, 2005 J\$ Million	Compensation for Social Security	Indirect Taxes	Depreciation	Operating Surplus	Intermediate Inputs	Gross Output	Contributions to GDP	Share of Copyright GDP	Share of GDP
General Distributive Trades	1,875.4	198.7	1,484.2	171.0	3,381.3	3,532.9	10,643.5	7,110.6	24.5%	1.2%
Distributive Trades	1,875.38	198.75	1,484.22	171.02	3,381.28	3,532.89	10,643.54	7,110.6	24.48%	1.18%
General Transportation, Storage, Communications and Business Services	1,693.5	219.9	181.3	705.7	1,427.8	4,210.5	9,148.4	4,218.2	14.5%	0.7%
Public Passenger Transport by Road	96.93	5.69	13.11	21.58	48.09	207.17	550.14	188.7	0.64%	0.03%
Private Passenger Transport by Road	288.32	15.75	36.29	59.73	136.71	622.56	1,522.60	516.8	1.75%	0.09%
Freight Transport by Road	64.53	4.96	11.43	16.62	43.07	299.13	479.73	182.9	0.58%	0.03%
Supporting Services to Land Transport	11.71	0.69	1.58	2.61	5.67	35.90	66.46	22.6	0.08%	0.00%
Ocean and Coastal Water Transport	23.88	1.40	3.23	5.32	12.17	73.22	135.54	48.0	0.16%	0.01%
Supporting Services to Water Transport	30.03	1.78	4.06	6.68	15.30	92.05	170.41	57.8	0.20%	0.01%
Air Transport	586.79	32.68	75.31	123.94	263.70	1,706.94	3,190.03	1,072.4	3.69%	0.18%
Supporting Services to Air Transport	42.01	2.47	5.65	9.35	21.40	128.79	238.42	80.9	0.28%	0.01%
Storage and	8.84	1.11	0.33	9.23	9.85	50.06	60.17	29.4	0.10%	0.00%

Table III: Detailed Structure of the Contribution of Copyright to GDP in Jamaica and Shares of Copyright Sector to GDP, 2005

	Adjusted Wages and Salaries J\$ million	Compensation for Social Security J\$ million	Indirect Taxes J\$ million	Depreciation J\$ million	Operating Surplus J\$ million	Intermediate Inputs J\$ million	Gross Output J\$ million	Contributions to GDP J\$ million	Share of Copyright GDP	Share of GDP
Warehousing										
Communication	427.60	148.20	24.36	439.83	780.34	823.17	2,428.53	1,800.6	6.27%	0.30%
Other Business Services- Accounts, Audit and Bookkeeping and Legal	132.96	5.2	6.9	8.57	68.9	120.8	343.1	222.2	0.76%	0.04%
Total Non-Dedicated	3,556.89	418.69	1,665.52	876.66	4,809.07	7,743.41	19,786.96	11,325.65	39.0%	1.9%
Total Copyright Industries	11,017.6	1,098.7	3,333.7	2,060.1	10,935.2	23,821.1	53,847.0	29,046.4	100%	4.8%
Jamaican Economy								606,030		

Annex III: Details of Employment Contribution of the Copyright Sector

J5IC Code		Adjusted Wages and Salaries J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
	Core									
	a. Press and Literature	1,797.9				6,401.5	20.007%	0.0059%		
24212	Publishing of Newspapers	872.2	287664	1.04	277305	3 508	10.945%	0.3320%	222 568	230882.35
24214	Publishing of Magazines and Books	63.7	287664	1.04	277305	230	0.717%	0.0216%	222 568	230882.35
24220	Printing not connected to Publishing	595.2	287664	1.04	277305	2 148	6.701%	0.2033%	222 568	230882.35
83252	Advertising Materials such as Billboards	166.7	321568	1.02	316768	526	1.643%	0.0496%	413 095	419354.84
	b. Music, Theatrical Productions, Opera	916.33				2,879	8.997%	0.2726%		
3373	Manufacture of Audio and Video Records and Tapes/Records/Music using Census 2001 Adjusted at Rate of Wage Inflation	31.07	310544	1.57	197619	157	0.481%	0.0149%	156 584	249171.29
9415	Authors, Music Composers, Independent Artists	780.38	310544	0.91	341502	2 295	7.134%	0.2164%	243 503	221428.57
9415	Music Component of Authors, Music Composers and Independent Artists	547.72	310544	0.91	341502	1 897	5.921%	0.1795%	243 503	221428.57
9498	Dance Studios	111.17	310544	0.92	338438	328	1.029%	0.0311%	347 031	318428.40
9414	Theatre and Related Entertainment Services	128.37	310544	1.20	250580	456	1.550%	0.0470%	306 435	388718.58
94110 & 94120	Motion Picture and Video Production, Distribution and Projection	118.96				520	1.625%	0.0493%		
94110 & 94120	Motion Picture Production	34.22	287664	1.00	267664	115	0.371%	0.0113%		
94110 & 94120	Motion Picture and Video Distribution	84.74	287664	1.36	211055	401	1.253%	0.0380%	534 071	455323.53
	Radio and Television Broadcasting	1,655.32				5,042	15.742%	0.4775%		
94130	General (National and Other) Radio and TV Broadcasting, including	1,241.40	287664	0.87	330584	3 755	11.724%	0.3556%	653 571	388717.50

Table III.1: Employment Details for the Core Copyright Sector, 2005

J5IC Code		Adjusted Wages and Salaries J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
	Independent Producers, Satellite TV and Other Services									
72000	Cable Television	413.83	321568	1.00	321568	1,287	4.018%	0.1219%		
96620	Photography	340.40				1,230	3.841%	0.1165%		
96620	Census Estimates of Photographic Studios, Agencies, etc.	340.40	287664	1.04	276706	1,230	3.841%	0.1165%	191,837	199,433.89
83260	Software and Databases	308.05				1,246	3.931%	0.1120%		
83260	Data Processing and Related Publishing	308.05	321568	1.04	309759	1,246	3.891%	0.1180%	229,167	227,603.23
	Graphic Arts	207.08				473	1.477%	0.0448%		
9422	Museums and Art Galleries	74.42	321568	0.37	878073	85	0.265%	0.0088%	573,546	138,789.82
9415	Art Painters, Sculptors and Other Own-Account Artists	132.67	310544	0.91	341502	388	1.213%	0.0368%	243,503	221,428.57
	Advertising Services	371.6				1,173	3.662%	0.1111%		
83251	Advertising Agencies	371.56	321568	1.02	316768	1,173	3.662%	0.1111%	413,095	419,354.84
83	Copyright Collective Management Societies	15.3				74	0.044%	0.0013%		
	JACAP	3.10				4	0.012%	0.0004%		
	JFM	1.00				2	0.006%	0.0002%		
	JAMCOPY	2.10				2	0.006%	0.0002%		
	JCS	1.00				2	0.006%	0.0002%		
	OCID	8.10				4	0.012%	0.0004%		
	Total Core Copyright	5,810.91				18,987	59.276%	1.7980%		

Table III.2: Employment Details for the Interdependent Copyright Sector

JSIC Code	Interdependent	Adjusted Wages and Salaries: J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
	Core Interdependent	41.83				75	0.235%	0.0071%		
3372	Manufacture of TV and Radio Transmitters, Receivers, Apparatus for Recording Sound or Video Signals and for Line Telephony and Teletype	4.53	585418	1.50	390277	12	0.036%	0.0011%	126,000	188599.8
3350	Manufacture of Computers and Equipment	37.30	585418	1.00	585418	64	0.195%	0.0060%	585,657	68668.67
	Partial Interdependent	1,173.49				3,248	10.141%	0.3076%		
3385	Manufacture of Optical Instruments and Photographic Equipment	17.20	585418	1.00	585418	20	0.092%	0.0028%	237,750	237749.9
2419	Manufacture of Certain Articles of Paper and Paperboard	46.10	548028	0.99	552685	83	0.260%	0.0079%	184,500	182945.32
8334	Rental of Radio, Television	9.12	418756	1.45	288476	32	0.099%	0.0030%	130,200	188590.77
8335	Rental and Leasing of Data Processing Equipment	2.22	418756	1.00	418756	5	0.017%	0.0005%	189,000	188590.8
	Wholesale and Retail of the Interdependent Copyright Industries, of which:	1,096.84				3,098	9.073%	0.2934%		
6251	Retail Stores dealing in Radios, Television Sets and Sound Reproducing and Recording Equipment (including Parts and Accessories)	92.54	392756	1.13	348374	260	0.829%	0.0282%	321,000	361884.63
6252	Retail Stores dealing in Calculators, Computers, Typewriters and other Office Equipment, including Parts and Accessories	534.80	592756	1.04	379564	1,420	4.434%	0.1345%	449,352	467805.63
6253	Retail Stores dealing in Musical Instruments, Records, Record Albums and Tapes	15.90	392756	0.87	453540	35	0.110%	0.0033%	174,600	751199.8

5203	Other Miscellaneous Wholesalers and Retailers, including:	455.50	302756	1.18	330687	1.372	4.300%	0.1304%	157,955	187801.98
	Retail Stores dealing in Books, Magazines and Stationery (Bookshops)									
	Retailers dealing in Antiques and Art									
	Total Interdependent Copyright	1,215.31				3,324	10.376%	0.3147%		

Table III.3: Employment Details for the Partial Copyright Sectors

JSIC Code	Partial Copyright Sectors	Adjusted Wages and Salaries J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
	Manufacture of Certain Apparel, Textiles and Footwear, and Related Items	11.47				46	0.144%	0.0044%		
2221	Manufacture of Made-up Textile Articles	0.51	328326	0.60	545175	1	0.002%	0.0001%	312,692	189437.31
2222	Manufacturing of Carpets and Rugs	0.05	328326	1.00			0.000%	0.0000%		
2229	Manufacture of Textiles (n.e.c.)	0.19	328326	0.58	554054	0.3	0.001%	0.0000%	255,150	151199.8
2231	Manufacture of Wearing Apparel and Crocheted Goods	1.31	235924	0.51	384057	3	0.011%	0.0003%	321,154	197262.75
2234	Manufacture of Clothing (except Footwear and Fur Apparel) for Men and Boys	2.16	235924	1.00	235924	6	0.020%	0.0009%	153,103	153103.45
2235	Manufacture of Clothing (except Footwear and Fur Apparel) for Women and Girls	3.22	235924	1.10	214799	15	0.047%	0.0014%	158,527	174117.66
2236	Manufacture of Clothing (except Footwear and Fur Apparel) for Children	1.10	235924	0.95	247377	4	0.014%	0.0004%	200,000	190740.74
2237	Manufacture of Headgear	0.03	235924	1.00	235924	0.13	0.000%	0.0000%	189,000	188999.75
2238	Manufacture of Other Wearing Apparel (n.e.c.)	1.60	235924	0.78	302525	5	0.016%	0.0005%	186,239	145235.1
2240	Manufacture of Luggage and Handbags	0.01	229684	1.00	229684	0.07	0.000%	0.0000%	189,000	188999.8
2251	Manufacture of Boots and Shoes from Leather, Fabrics and Other Materials, except Wood, Rubber and Plastic	1.14	229684	1.35	170715	7	0.021%	0.0006%	86,623	115190.79
2249	Manufacture of Other Leather Products	0.07	229684	1.19	192322	0.35	0.001%	0.0000%	157,000	157499.85

Table III.3: Employment Details for the Partial Copyright Sectors

JSIC Code	Partial Copyright Sectors	Adjusted Wages and Salaries JS million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
2259	Manufacture of Footwear made of Rubber, Plastic and Other Materials (n.e.c.)	0.05	229884	1.00	229884	0.22	0.001%	0.0000%	158,000	155968.8
	Manufacture of Furniture	54.38				149	0.464%	0.0141%		
2321	Manufacture of Wooden Furniture	52.94	311272	0.85	366859	144	0.451%	0.0137%	200,308	199957.08
2322	Manufacture of Metal Furniture	1.20	311272	0.94	331985	4	0.012%	-0.0004%	182,659	172199.80
2323	Manufacture of Rattan (Wicker) Furniture	0.18	311272	1.00	311272	1	0.002%	0.0001%	110,250	
	Manufacture of Household Goods, China and Glass	1.45				4.1	0.013%	0.0004%		
2721	Manufacture of Plastic Containers and Cups	0.74	369008	1.04	369574	2.0	0.009%	0.0002%	232,381	242085.6
2722	Manufacture of Plastic Dinner Ware and Table Ware	0.03	369008	1.00	369008	0.1	0.000%	0.0000%	390,000	389909.9
2729	Manufacture of Plastic Products (n.e.c.)	0.43	369008	1.12	343386	1.2	0.004%	0.0001%	150,784	169050.45
2811	Manufacture of Glass	0.08	354796	1.08	338252	0.3	0.001%	0.0000%	231,240	242549.75
2812	Manufacture of Glass Products	0.03	354796	1.00	354796	0.1	0.000%	0.0000%	201,600	0
2891	Manufacture of Non-Structure Ceramic Ware (China, Stone, Earthenware etc.)	0.14	388544	1.15	339280	0.4	0.001%	0.0000%	154,600	168488.83
	Manufacture of Jewelry, Watches and Related Articles	19.37				23	0.073%	0.0022%		
2904	Manufacture of Jewelry and Related Articles	17.70	585416	0.88	657581	21	0.064%	0.0020%	245,100	167314.14
3386	Manufacture of Watches and Clocks	1.67	585416	1.00	585416	3	0.009%	0.0003%	188,000	185899.9
	Interior Decorating and Carpets	2.17				2	0.006%	0.0002%		
5452	Interior Decorating	1.43	565500	0.39	1459833	1.0	0.003%	0.0001%	188,838	65799.944

Table III.3: Employment Details for the Partial Copyright Sectors

JSIC Code	Partial Copyright Sectors	Adjusted Wages and Salaries -J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
5631	Flooring (Parquet) and Carpeting	0.73	565500	0.78	722388	10	0.003%	0.0001%	179,160	140249.9
	Engineering, Architectural and Technical (including Surveying)	421.1				744	2.321%	0.0704%		
8524	Engineering, Architectural and Technical (including Surveying)	421.15	565500	0.996	566383	744	2.321%	0.0704%	385,027	384426.23
	Wholesale and Retail of Partial Copyright Industries	524.8				1,544.3	4.821%	0.1462%		
6161	Wholesale of Cotton, Textile Yarn and Fabric	2.25	821132	1.03	796974	3	0.009%	0.0003%	242,838	249024.75
6162	Wholesale of Clothing	0.75	821132	2.22	369506	2	0.006%	0.0002%	70,200	155966.65
6165	Wholesale of Footwear	0.61	821132	1.00	821132	1	0.003%	0.0001%	756,000	
6169	Wholesale and Retail of Textiles, Wearing Apparel, Footwear and Leather (n.e.c.)	5.89	821132	1.10	749729	6	0.025%	0.0007%	239,217	261966.68
6171	Wholesalers of Office Furniture and Equipment	1.20	821132	1.00	821132	1	0.005%	0.0001%	160,298	160285.57
6172	Wholesalers of Household Furniture and Equipment	1.90	821132	1.14	718491	3	0.008%	0.0003%	221,326	252042.71
6173	Wholesalers of Furniture and Fittings	0.42	821132	1.00	821132	1	0.002%	0.0000%	390,000	389009.9
6221	Retail Stores dealing in Household Furnishings and Fittings including Carpets and Draperies	5.62	392756	1.11	353869	19	0.060%	0.0018%	192,500	180357.14
6222	Retail Stores dealing in Household Appliances (Electrical and Non-Electrical)	6.68	392756	1.12	351147	20	0.061%	0.0019%	210,000	234863.72
6223	Retail Stores dealing in Furniture	14.55	392756	0.92	427236	34	0.106%	0.0032%	238,710	219444.44
6224	Retail Stores dealing in Jewelry, Watches and Clocks	5.57	392756	1.03	380126	15	0.046%	0.0014%	206,634	213466.8

Table III.3: Employment Details for the Partial Copyright Sectors

JSIC Code	Partial Copyright Sectors	Adjusted Wages and Salaries -J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid-Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
6231	Retail Stores dealing in Textiles, Wearing Apparel and Other Personal Effects	20.28	392756	1.08	364152	98	0.175%	0.0053%	162,255	175000
6231	Retail Stores dealing in Footwear	1.70	392756	1.16	338344	5	0.016%	0.0005%	148,894	173589.63
6293	Miscellaneous Retailers, including Retail Stores dealing in Sports and Recreational Goods	455.56	392756	1.19	330687	1,377	4.3%	0.130%	157,895	167601.96
	Total Partial Copyright	1,032.46				2,510	7.8%	0.238%		

Table III.4: Employment Details for the Non-Dedicated Copyright Sectors

		Adjusted Wages and Salaries .J\$ million	Average Earnings for Employees in Large Establishments	Ratio of Average Earnings of Paid Employees to Average Earnings of All Employees	Adjusted Average Earnings Rate	Employment	Share of Copyright Employment	Share of Total Employment	Average Earnings of All Employees	Average earnings of Paid Employees
	Non-Dedicated Copyright General Distributive Trades	1,875.4				3,670	11.5%	0.348%		
5100-5200	Distributive Trades	1,875.38	209544	1.19	511028	3,670	11.5%	0.348%	157,955	167601.96
	General Transportation, Storage, Communications and Business Services	1,683.5				3,541	11.1%	0.335%		
7113	Public Passenger Transport by Road	65.93	417820	0.86	473411	208	0.6%	0.019%	207,297	162954.65
7113	Private Passenger Transport by Road	286.30	417820	0.80	522893	513	1.5%	0.049%	227,034	161412.64
7114	Freight Transport by Road	54.53	417820	0.88	476949	177	0.5%	0.017%	265,854	232804.74
7116	Supporting Services to Land Transport	11.73	417820	1.04	402327	29	0.1%	0.003%	206,649	2,14614.81
7121	Coastal and Coastal Water Transport	23.88	944320	1.09	868774	27	0.1%	0.003%	552,000	600000
7123	Supporting Services to Water Transport	30.03	944320	0.86	986633	30	0.1%	0.003%	347,000	3,32051.28
7131	Air Transport	556.79	719888	1.03	700678	795	2.3%	0.075%	500,000	513709.68
7132	Supporting Services to Air Transport	42.01	719888	0.84	855349	49	0.2%	0.005%	416,447	350495.05
7192	Storage and Warehousing	8.84	520416	1.20	401439	22	0.1%	0.002%	242,552	314439.87
72000	Communication	427.90	321588	1.00	321588	1,331	4.2%	0.129%		
83260	Other Business Services: Accounts, Audit and Bookkeeping and Legal	132.56	321588	0.86	365756	362	1.1%	0.034%	577,907	508065.11
	Total Non-Dedicated	3,558.89				7,211	22.5%	0.683%		
	Total Copyright Industries	11,617.6				32,032	100%	3.03%		
	Jamaican Economy					1,056,000				

The Economic Contribution of Copyright-Based Industries in Bulgaria



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Executive Summary

This survey is the first comprehensive study of the contribution of copyright and neighboring rights-based industries to the Bulgarian economy. It was conducted between August 2006 and February 2007 at the request of the Bulgarian Government and with the financial support of the World Intellectual Property Organization (WIPO). The adoption of the NACE international classification of economic activities by the National Statistical Institute (NSI) in 2003 (Bulgarian National Classification of Economic Activities NKID-2003) was an important precondition for the study, allowing for the application of the WIPO methodology. The data on the years 2003 and 2005 allowed for an evaluation of the real situation at the end of 2005 and the development of these industries over a three-year period.

Carrying out this study was an expression of Bulgaria's adherence to the principle that knowledge protected by intellectual property rights is of key importance for the wealth of nations. This principle, widely accepted among developed countries, has put the copyright-based industries at the forefront of public policy. The OECD countries have developed a relevant infrastructure and boosted the implementation of intellectual property legislation, which has transformed copyright-based industries into one of the most rapidly-developing economic sectors. Since 1998 several Bulgarian governments have made significant efforts to limit the piracy of protected goods and services and to impose intellectual property rights legislation. In 2006 the present government launched a national campaign for the protection of copyright aimed at raising public awareness and further strengthening the implementation of copyright law. The present research forms part of these efforts since it provides objective economic data for designing better policies in the field and can contribute to the general positive change in public attitudes towards copyright-based industries.

The methodology of the study is based on a secondary analysis of main economic indicators such as value added, gross output, share of imports and exports and employment, which have been analyzed for each of the copyright-related activities. These activities are classified into four groups – core, interdependent, partial, and non-dedicated support industries. The economic contribution of core and interdependent industries is considered as 100 percent copyright related, while for the other two groups a specific copyright factor is applied, following WIPO's methodology and the experience of researchers in Hungary, the US, Singapore, Latvia, and others.

Core industries - those with the highest copyright contribution to the created value added: press and literature; visual and graphic arts; music, theater and opera; photography; motion picture and video; radio and television; advertising; software and databases.

Interdependent industries - manufacturing and trade of equipment, instruments and products used entirely or mainly in core copyright industries: computers, photographic and cinematographic equipment, radio and television devices, paper, blank recording materials.

Partial industries - those in which only a part of their activities are related to copyright and neighboring rights: apparel, textiles and footwear, furniture, jewelry, artistic arts, toys and games, domestic and home appliances and goods, architecture, activities of museums.

Non-dedicated support industries - facilitate distribution and sales of copyright-protected goods and services: telecommunications including the Internet, transportation, general wholesale and retail.

Typology of Copyright-Based Industries according to WIPO's Methodology

In its analysis of the manner of collection and calculation of the macroeconomic data applied by the Bulgarian NSI, the survey team concluded that, at present a more appropriate idea of the economic contribution of copyright-based industries can be provided by their share of the gross value added (GVA) at basic prices rather than the gross domestic product (GDP) at market prices. In addition to GVA as its basis, GDP includes indirect taxation, excise and customs duties (all having a greater impact on goods for mass consumption unrelated to creative industries), which changes the basis for comparison by artificially reducing the share of copyright-based industries. In addition the NSI methodology does not take into account the income of such large cultural institutions as the national television, national radio, state and municipal theatres, opera, dance troupes, museums and galleries, etc. (which, according to the experts, exceeds 20 percent of their subsidies).

The WIPO methodology has been applied to the most detailed level in the Bulgarian survey – to the primary data by each of the codes of economic activities in the classification of the Bulgarian version of NACE (NKID-2003). This has made it possible to process information about the intangible fixed assets of the companies (including rights on products of intellectual property, software, R&D), net sales, profit from main activities, intermediate consumption and others. The collected copyright-based industries' economic data for 2003 and 2005 allows for additional specialized analyses of different segments of the copyright-based industries, including in-depth analyses of the most successful and rapidly-developing sectors of software, publishing and printing, and film. These data also form a good basis for future comparison on a national and international level.

The Overall Contribution of the Copyright-Based Industries to GDP in 2005

In 2005, gross output of BGN4.155 billion and value added of BGN1.204 billion came from economic activities related to copyright and neighboring rights. The core copyright industries made the greatest economic contribution to the sector with a gross output of BGN2.498 billion and value added of BGN672 million.

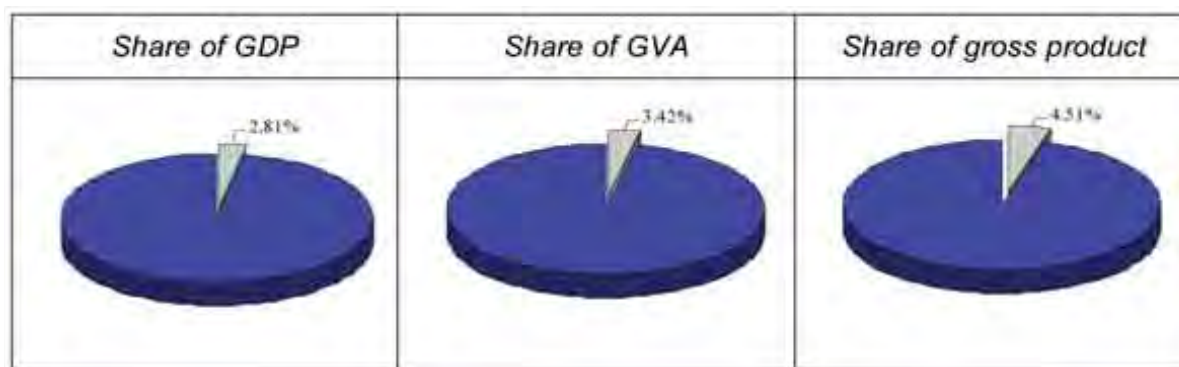
Core CI (Gross output)	Total BG Gross output	Core Share of BG Gross Output
2 498 559	92 132 091	2.71%
Total Copyright (Gross output)	Total BG Gross output	Total Share of BG Gross Output
4 155 101	92 132 091	4.51%

Core CI (value added)	Total BG Gross Value Added	Core Share of BG Gross Value Added
672 270	35 220 410	1.91%
Total Copyright (value added)	Total BG Gross Value Added	Total Share of BG Gross Value Added
1 204 229	35 220 410	3.42%

When calculated in comparison to the GDP, the total contribution of the copyright-based industries is 2.81 percent and that of the core industries is 1.57 percent.

Core Copyright (value added)	Total BG GDP	Core share of BG GDP
672 270	42 797 407	1.57%
Total Copyright (value added)	Total BG GDP	Total share of BG GDP
1 204 229	42 797 407	2.81%

The economic contribution of the copyright-based industries in 2005 can be represented as follows:



The 'static' outline of the share of the copyright-based industries' economic contribution reveals a significant though small sector of the Bulgarian economy. This outline, however, does not give a clear idea of the copyright-based industries growth rates, which put them among the most rapidly-developing sectors of the economy. For the period 2003-2005 the survey identified the gross value added derived from the current price index as growing by 50 percent over three years, which exceeded the growth rates of the economy as a whole (11.5 percent). If favorable conditions continued and if the sector received adequate public support, it could become one of the engines for Bulgarian economic development in the near future.

Rates of Change in Value Added for 2003-2005

Growth Core Copy-right (value added)	Growth Total Copy-right (value added)	Growth BG Gross Value Added	Growth BG GDP
52.8%	49.9%	10.8%	11.5%

Information on the copyright-based industries is obtained as a ratio of the values for 2005 and 2003 adjusted for inflation. The data on the national economy are taken from Table 1.2.22 in 2005 Main Economic Indicators, National Accounts Section (www.nsi.bg).

Growth of Copyright-Based Industries for 2003-2005



Employment in the Sector of Copyright-Based Industries

In 2005, 104,814 people in Bulgaria were employed in economic activities related to copyright and neighboring rights, almost one in every 20 of the working population: 55,861 people worked in the core copyright sector only, i.e., more than half of those employed in the entire sector.

Core Copyright (number employed)	Total BG employed	Core Share of BG employed
55 861	2 434 726	2.29%
Total Copyright (number employed)	Total BG employed	Total Share of BG employed
104 814	2 434 726	4.31%

A rapid increase in the number of people employed in the copyright-based industries was registered for the period 2003-2005; the growth rate more than three times higher than the growth rate of employment in the economy as a whole.

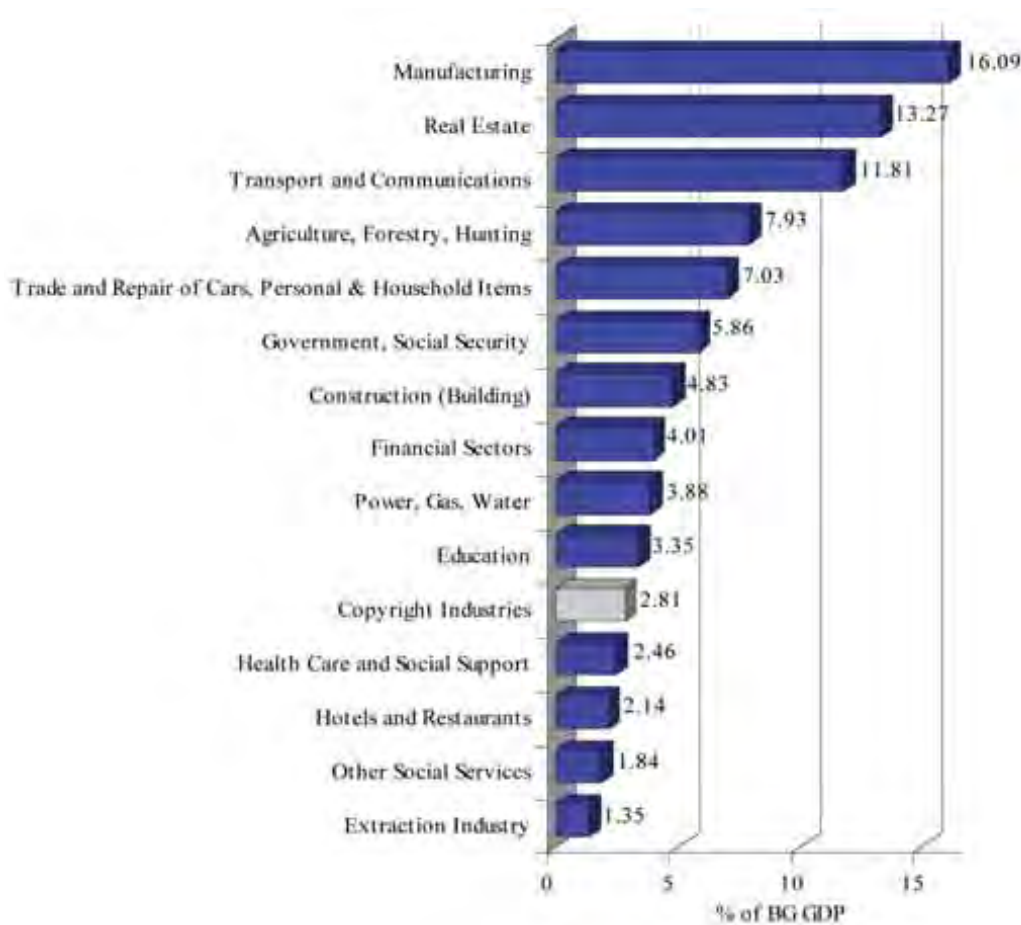
Core Copyright (growth of employed 2003-2005)	Total Copyright (growth of employed 2003-2005)	Total BG Employment Growth
12.3%	13.3%	3.5%

Comparison with Other Sectors of the Economy

The copyright-based industries are not monitored separately in the Bulgarian National Statistics. That is why they are somewhat undervalued in this comparison since their activities have already been included in some of the monitored sectors. In view of their share in the gross value added in 2005, they rank eleventh, above health care, hotels and restaurants, and extraction industries. The value added generated by the copyright-based industries (3.42 percent) is approximately three-quarters of the value added in such an important

sector as generation and distribution of electric power, gas and water and was significantly higher than the hotels and restaurants sector. As for its contribution to GDP, the share of the copyright-based industries is 2.81 percent – a value that is more than twice the share of the extraction industries and higher than that of hotels and restaurants. Regarding employment, the copyright-based industries occupy tenth place, higher than hotels and restaurants and agriculture, forestry, hunting and fishing.

Copyright-Based Industries Share in GDP compared with Other Sectors in the Bulgarian Economy

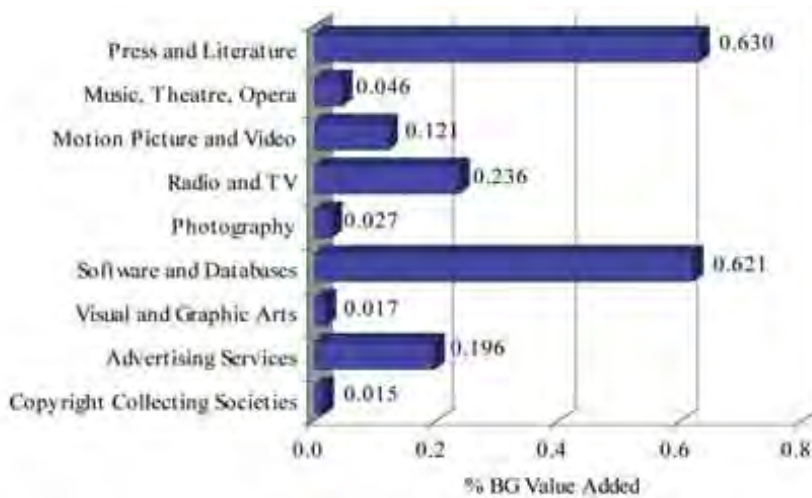


Leading Sectors in the Copyright-Based Industries

Book publishing and printing and software and databases are the two largest core copyright-based industries – they both contributed 0.51 percent to the gross value added in the country in 2005. The value added per person employed was the highest in the radio and television industry – BGN25 287. It was followed by production and distribution of motion picture and video with BGN19 503 and software and databases – BGN18 522 per employee.

In 2005 the value added adjusted for inflation generated by the core industries grew by 52.8 percent in comparison to 2003. The highest growth was registered in production and distribution of motion picture and video – 166 percent, i.e., almost triple. The main activity in this industry shows the highest growth among all copyright-based economic activities of 225 percent. In 2003, this sector was comparable with other sectors such as theater and music, visual and graphic arts, and photography. It became an industry in the true sense of the word over a three-year period.

Relative Contributions of Core Copyright Industries to the Bulgarian GVA in 2005



The second fastest developing sector is software and databases, registering a growth rate of 93 percent: its key activity, development of original software for customer needs and design of websites, grew by 108 percent. Interviews carried out with experts in the field confirmed the positive effects of current efforts to increase the share of legal software used by companies – it improves their efficiency, the quality of the end product and their competitiveness.

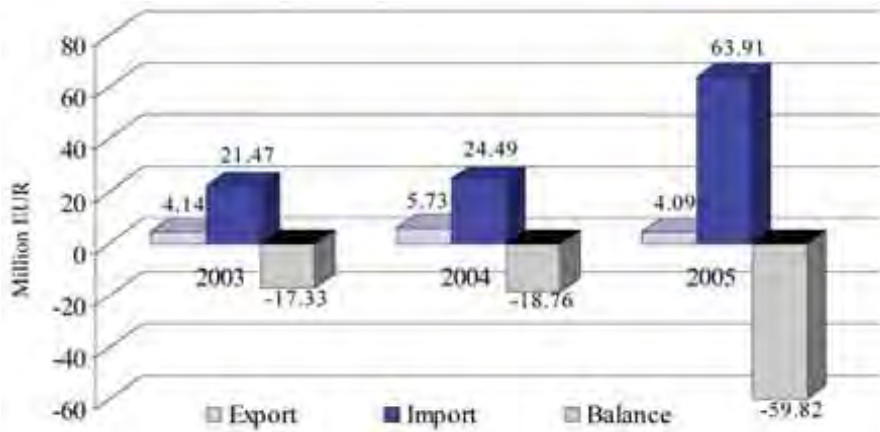
The third fastest developing sector is architecture which falls under the category of partial copyright-based industries. During the period surveyed it showed a growth in value added of 81 percent taking inflation into account, a growth in gross product by 23 percent and 16 percent growth in employment. Using real numbers, the contribution of this sector to the GVA is BGN15.3 million and this is the figure calculated after a 90 percent reduction (10 percent copyright-based factor). The importance of the sector must not be underestimated because there is hidden potential here, which is not accounted for by NSI due to the peculiarities of the construction sector.

The core copyright-based industries value added share was 2.12 percent of Bulgarian GDP for 2005, higher than the extraction industries and closer to the share of hotels and restaurants. The share of the seven 'culture-related' core copyright-based industries (without software and advertising) in GDP for 2005 was equal to 1.27 percent, while total government subsidies to culture-related activities for 2005 was 0.72 percent of GDP – about one third of the core copyright-based industries economic contribution and slightly more than half of the seven 'cultural' copyright-based industries economic contributions. These results call for a revision of public policy towards structure and management of subsidized cultural activities.

Import and Exports of Products of Copyright-Based Industries for the Period 2003-2005

Bulgaria is a net importer of products protected by copyright and intellectual property rights in general – in the past, the compensation paid abroad for using products of intellectual property increased from €21.5 million to €64 million, while the income received from the sale of domestic intellectual property abroad reached a level of €4.5 million a year. One might extrapolate that the early successes in the fight against piracy and the strengthening of copyright legislation have resulted in a triple increase in payments made abroad while the income from rights and licenses in Bulgarian products of intellectual property remained constant.

**Royalties and Taxes for Copyrights and Neighboring Rights
received and paid by the Bulgarian National Economy in 2003-2005**



The exported goods and services of the publishing and printing industry amounted to between €5.45 million and €6.84 million a year for the period 2003-2005 while imports grew steadily and the increase for 2005 only was 68 percent. The negative trade balance in this group of goods increased and amounted to €21.27 million in 2005. Exports of software were higher, reaching almost €10 million in 2005, an increase of 45 percent in comparison to the previous year. In the opinion of the experts, a significant part of these exports is unaccounted for in the national statistics.

Information received on the imports and exports of radio and television sets, tape recorders, CDs, DVDs and other equipment for reproduction and recording of audio and visual carriers shows that the main part of the value added in this interdependent copyright-based industry was realized in imports. During the period surveyed, the ratio between imports and exports was 1:4 in favor of imports; the negative trade balance exceeding €400 million in 2005.

The leading partial copyright-based industry is apparel, textiles and footwear with a positive balance of 1.13 billion. The survey shows that there has been a trend in this sector for enterprises to appoint professional designers or to purchase the services of such while the companies more often protect their original products and register trademarks.

The furniture industry also shows growing volumes of imports and exports given a stable positive balance between €70 million and €80 million. With a higher copyright weight, the industry outperforms apparel, textiles and footwear for gross value added. With respect to games and toys, imports and exports were about €20 million annually during the period surveyed with a slight rise in imports. There is a significant informal sector leading to serious infringements of copyright in this industry (computer games), which forces Bulgarian game producers to turn their attention primarily to the external market and which explains the relatively high levels of exports.

The export-import data on products and services provided by Bulgarian interdependent copyright-based industries reveal a clear picture of deindustrialization of the sector. Fifteen years ago most of these industries were among the country's leading, export-oriented industries. Aside from paper production there are few items of copyright-based industries-related equipment and apparatus that are produced and exported. Only a limited number of entrepreneurs have managed to preserve and develop small-scale production in specific niches such as blank recording material (CDs, DVDs), optical and electronic components, etc. Public policies

need to stimulate foreign direct investment, to identify the country-specific competitive advantages (research and manufacturing traditions, access to specific markets, production facilities, etc.) and to support local entrepreneurs.

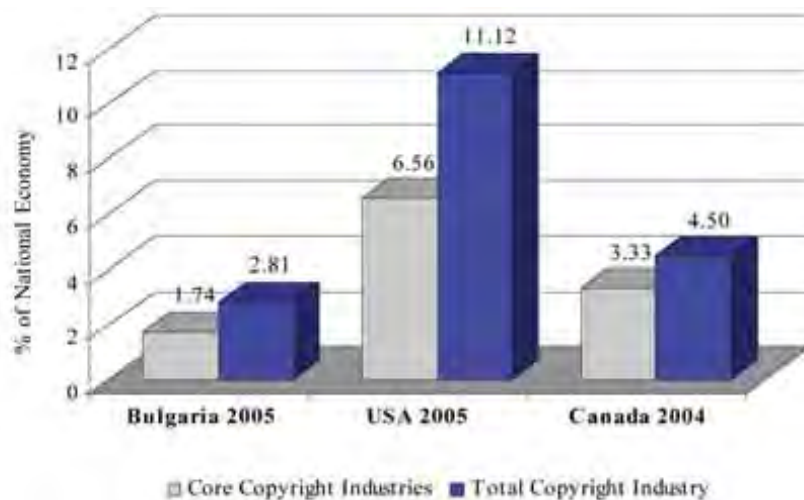
International Comparisons

According to the employment figures, the core copyright industries represent a 2.5 percent share of total employment. This means that Bulgaria is above the average of 2 percent for the 15 EU Member States (according to the data from the *2003 Study of Copyright-Based Industries in the EU*).

With the share of value added of the core copyright-based industries in 2003 equal to 1.3 percent of GDP, Bulgaria does not feature as one of the leading European countries in the field. However the comparison does not take into account the enormous growth in copyright-based industries in Bulgaria over the past three years – 13.3 percent, which is four times higher than the average growth of the economy. The relatively low share can partially be explained by the inability of the national statistical system to register the exact contribution of all copyright-based activities.

The available US data for 2005 and Canadian data for 2004 allowed for comparison with Bulgarian data for 2005. It shows that the contribution of the core copyright-based industries to Bulgaria's GDP is three times lower than that in the US and more than twice as low as that in Canada.

CI share GDP – Bulgaria, the US and Canada, 2004 - 2005



Employment in the core copyright-based industries in Bulgaria is about twice as low as that in the US and is comparable to Canada. For the period 2003-2005, the growth rate of the core copyright-based industries in Bulgaria, calculated as a ratio between the shares of value added in GDP, was 38 percent – significantly higher than that in the US and Canada.

Growth Rates of Core CI Share in GDP



Policy Issues

The following conclusions and recommendations could be outlined, on the basis of the study:

- 1) Develop public policy on copyright-based industries – from ‘public good’ management to correcting market failure in the field and providing seed capital for new copyright-based industries. The much higher share in value added of the core copyright-based industries in GDP for 2005 compared with the share of government subsidies to culture-related activities for 2005 claims for revising the public policy on management of subsidized cultural activities. These subsidies should be considered not just as ‘public good’ distributed according to a society’s long-term social and cultural needs, but rather as partial compensation to the economic agents in the copyright-based industries for their efforts in response to these needs, as a correction of ‘market failures’ in private response to the cultural needs of society, and as ‘seed capital’ for developing new businesses in the cultural sphere. This, however, presupposes developing the public-private partnership in the management of public subsidies for culture.
- 2) The relative homogeneity of the main part of core and partial copyright industries in Bulgaria favors development of common policy measures to support them, in addition to sector-specific policies aimed at fast-growing ‘champions’ (book publishing and printing, software, architecture, furniture). The positive trade balance in most of these industries is an additional argument in this respect. Possible strategies include improving the general conditions for protection of copyrights, whose importance is already widely recognized among the entrepreneurs in these sectors. In more specific terms, it is necessary
 - To strengthen the implementation of IP law, especially in the distribution of protected goods and services via the Internet. This should include tightening controls on LANs and cable TV networks.
 - To improve competence in and knowledge of copyright among the representatives of the legal system in Bulgaria, especially the judges and prosecutors. Special training programs are needed to encourage best practices and facilitate the exchange of information and experience.
 - To continue the public campaign against piracy and rising public awareness of the economic losses and moral damages related to it.
- 3) Support the export of locally-produced copyright-based industries products and services. Introduce measures to improve qualifications of employees and entrepreneurs in copyright-based industries. The interviews carried out revealed that the transition from small entrepreneurial firms towards larger, corporate businesses leads to a number of problems, the most acute being the lack of managerial skills for running larger enterprises.

- 4) Improving the national system of classification of economic activities and statistical data collection is an urgent necessity. At present a number of important copyright-based industries-related economic activities are classified under mixed codes together with other, irrelevant activities. This requires much additional effort and resources. We recommend the establishment of a special task force comprising representatives of the National Statistical Institute, the Ministry of Culture, the UWE Intellectual Property Department and members of the Bulgarian WIPO research team to revise the Bulgarian version of NACE and to propose the necessary changes. Such changes would correspond to the rapid development of copyright-based industries in the country and offer relevant information for the practitioners and policy makers in the field. We especially recommend changes in the 12 codes, described in Annex 4 of the present report, as well as a number of copyright-based industry-related codes in the Bulgarian Customs Tariff. Changes to the existing rules for classifying export-import data are also needed. In general, the proposed improvements in Bulgarian economic statistics would help public policy in the field of copyright-based industries and would make a valuable contribution to current efforts against piracy, allowing for adequate measurement of the effects of anti-piracy campaigns.
- 5) The rudimentary status of certain creative occupations such as the design profession had a bearing on the development of a number of copyright-based industry sectors. This title does not yet exist in Bulgaria as an autonomous business field. At present it covers a number of different professional activities attached to other copyright-based industries businesses, each indicated with a corresponding title – i.e., fashion design, media design, graphic design, interior design, etc. The spread of these activities among the sectors, lack of a common profile, as well as of an autonomous institutional and organizational status of design activities limits the possibility of imposing their copyrights on the market and defending them against misuse. The present situation creates obstacles in building long-term strategies for development of the sector and improving the artistic level of the design profession. Public policy in the field is urgently needed to support the efforts of the practitioners and to create a better legal, educational and organizational environment for the autonomous development of the sector.

The results obtained in this survey revealed a new, rapidly-growing sector of the economy. They provide solid ground for future studies to serve the needs of policy makers and the various stakeholders in the field.

Introduction

This is the first overall study of the contribution of the copyright and neighboring rights-based industries (hereinafter referred to as copyright-based industries) to the Bulgarian economy. It was conducted in the period August 2006 – May 2007 and was funded by the World Intellectual Property Organization (WIPO). The study used the WIPO methodology which has now been applied in more than 20 countries all over the world. The methodology is based on the main economic indicators monitored by the National Statistical Institute, the Bulgarian National Bank and other national institutions, and measures the value added, gross output, share of imports and exports and employment generated in these industries on the basis of which other related economic indicators can be computed. The methodology allows for comparison of the results of the study with those in other developed countries.

Why is a study on the copyright-based industries necessary? – It is an expression of the growing understanding over the past two decades that knowledge is of key importance for the wealth of a nation. While intellectual property, and copyright in particular, has been traditionally viewed primarily from a legal point of view, attention is now turning to the economic characteristics of copyright. The first studies have shown that the economic activities based on the use of creativity and related copyright make up a significant sector of the economy. The transformation of the creative (or copyright-based) industries as the result of a specific economic policy, together with the creation of the appropriate infrastructure and strengthening law enforcement in the field of intellectual property, have yielded impressive results – today, in most OECD countries, the copyright-based industries are one of the most rapidly-developing economic sectors, often several times ahead of the average rates of economic growth. There are other factors for this, one of the most powerful of which is the development of digital technologies and the Internet which have rapidly expanded the possibilities for consumption of the products and services provided by the copyright-based industries, changing some traditional economic activities and creating new ones.

Very often events in the economy and their study go in sequence. Novelties often occur by stealth, in the shadow of other forms,¹ and exist unnoticed by journalists, researchers, politicians, tax authorities, etc., for some time. This is what has happened in the UK – after the economic awakening in sectors such as advertising, software, plastic and fine arts, architecture, etc., researchers found there was an economic boom and that “in fact,” the activities which are seemingly unconnected and scattered by sectors of the old economic statistics reveal the unified phenomenon of creative industries – “... those industries which have their origin in individual creativity, skill and talent and which have a potential of wealth and job creation through the generation and exploitation of intellectual property.”² This definition places economic wealth in direct relation with individual talent and mind, innovation and its related reputation and popularity in setting market forces in motion.

Deeper research has found that the basis for the realization of the economic value of these industries is intellectual property rights and the importance of protecting these rights. In Bulgaria, intellectual property rights and their observance are yet to be learned, after the years when the real owner of the creative product was the state and inventors owned the so-called “authorship certificates.” In the fifteen years of transition Bulgaria was sanctioned several times for violations of intellectual property rights. Over the past years, Bulgarian governments have made significant efforts to fight piracy yet problems still exist. Research into the creative industries in the city of Plovdiv conducted in 2005 at the initiative of the British Council in Sofia showed that this is one of the main reasons why the various sectors of the creative industries remain

¹Theoretically, the opportunities for businesses and profit are the greatest in such a case – because the risks are the highest.

²See *Creative Industries Mapping Document*, Department for Culture, Media and Sport, UK, 1998, p.1.

separated in everyday economic practice; the common elements are not seen, the problems of an essentially similar nature the various professions have to resolve remain hidden.

This study was the first to give a detailed picture of the economic contribution of the copyright-based industries in Bulgaria for the period 2003-2005. It is of key importance to be acquainted with and to promote these industries with a view to establishing adequate policies in the field. The study also provides a good foundation for future research – comparative research, research applying the same methodology with a view to tracing the future development of the copyright-based industries, research using other methodologies or specialized studies of individual problems or of individual sectors of these industries.

This study has been made possible at the initiative of the Bulgarian Government with the financial support of WIPO.

It was conducted by a team of experts led by Associate Professor Dr. Ivan Tchalakov (Plovdiv University and BAS Institute of Sociology) and included Senior Assistant Professor Dr. Vladia Borisova with the Intellectual Property Department of the University of National and World Economy, Senior Assistant Professor Donka Keskinova from Plovdiv University, Associate Professor Yordan Kalchev from the National Statistical Institute (NSI) and the following experts from the Ministry of Culture – Georgi Damyanov, Head of Copyright and Neighboring Rights Directorate, Dr. Rossitsa Arkova, Chief Expert with Strategies and Programs Directorate, and Tsveta Andreeva, Chief Expert with EU Integration and International Cooperation Directorate. The team worked under the close supervision of the Deputy Minister of Culture, Mrs. Ina Kileva. The WIPO consultant was Professor Robert Picard from the Jönköping International Business School, Sweden. Dr. Dimiter Gantchev, Acting Director, Creative Industries Division of WIPO, monitored the execution of the project at all stages. Of great importance was the close cooperation with the experts of the NSI, Mr. Todor Todorov, Director of the National Accounts Directorate, and Ms. Ljuba Yaneva, Head of the Business Statistics Department.

The report that follows consists of four parts. The first part is a legal and economic study of the content of copyright and neighboring rights, the need for and the types of protection, as well as existing legislation. It also looks at the main institutions in the country tasked with the application of this legislation and their activities for the past fifteen years. The second part presents the methodology of the study and its application in Bulgaria. The third main part analyzes the joint contribution of the copyright-based industries to the Bulgarian economy in view of the value added, GDP and employment in the sector for the period 2003-2005. It is compared to the contribution of the other basic branches of the economy, followed by a description of the internal structure of the copyright-based industries – relative shares of the core, interdependent, partial and non-dedicated support industries by the given indicators – and identifies the leading sectors in each group. It also shows the structure and dynamics of the imports and exports of the economic sectors monitored in each group. It then compares the results computed with those of other countries and draws conclusions about the place and specific characteristics of the Bulgarian copyright-based industries. The final section outlines the development and current situation in each of the eight core copyright industries.

The fourth part provides summaries and conclusions on the practical activities and policies of government institutions, private entrepreneurs and associations in the field of copyright-based industries.

PART ONE - Artistic Property as a Subsystem of Intellectual Property in Bulgaria

This chapter deals with an interesting and current topic on the contribution of the copyright-based industries to the economy of Bulgaria. The observance of the terms and conditions and the procedure for the use of intellectual property are directly related to the rules established by copyright.

Copyright is an exclusive right, which enables the author to use the work and to authorize its use by others. "Use" is understood as a realization of the economic rights of the author specified under the law. It is a main principle that copyright arises automatically on the creation of the work. In order to be protected a work must be original. Protection lies in the expression of an idea, and not in ideas themselves. The work must be disseminated in a place before an unlimited number of persons¹ and at a moment chosen by the author.

There are limitations to copyright protection in certain cases. They are imposed with a view to protecting the economic interests of society and of the author separately and at the same time and in response to the process of harmonization of the national legislation with the *acquis communautaire* in the field.

Artistic property includes neighboring rights. According to national legislation, neighboring rights cannot contradict copyright, especially as regards the use of the work and the allocation of the remuneration received (see *Appendix No. 1*, item 2, item 3, item 4, item 5 and item 6).

Rights management is essential for deriving any income from economic use. This management may be conducted individually or collectively.

Copyright protection is not provided on the basis of registration. There is no statutory requirement for the author to use his/her work.² As regards copyright licensing, an agreement in which the author agrees to transfer all his/her rights to future works is considered void. Copyrights are licensed by contract for use of a work with the author. The principle is that the type of works in the three main groups coincide with the types of an author's economic rights which themselves represent separate contracts with authors (the right to import and export copies of the work in commercial quantities is an exception irrespective of whether such copies are made legally or not).

According to Bulgarian legislation, Collective Management Societies for Copyright and Neighboring Rights (CMS) are voluntary associations of authors or neighboring rights holders organized as non-profit organizations registered in accordance with the Commercial Act and subsequently with the Ministry of Culture.³

The main objective of CMS is: to represent authors; to negotiate the use of their works; to collect and allocate authors' remuneration and to represent their members in similar foreign organizations with which they have contractual relations.⁴

¹ National legislation does not provide for a definition of the notion of "unlimited number of persons" – whether the unlimited number refers to the number of persons itself or to the free access to the place where the work is disseminated. So far, there has been no case law on this issue.

² The Copyright and Neighboring Rights Act protects unpublished works upon expiry of the copyright for a further period of 25 years in favor of the person who disseminated the work.

³ The non-monopolization of collective management of copyright and neighboring rights is a major principle in the legislation concerning artistic property. The legislation allows for the establishment of multiple collective management organizations. In Bulgaria, this principle is not applied in practice; therefore there is one collective management organization for each cultural sector.

⁴ CMS are competent to authorize the: *transmission of the work by cable simultaneously with the broadcasting or its transmission entirely or in an unchanged manner by an organization different from the broadcasting one*. In this case, the organization also acts for non-members in the same way as for its own members.

CMS for Copyright Management in Bulgaria

- MUSICAUTOR is a voluntary association of authors of musical works. It is the first organization for collective management of copyright and was established in 1993 with the help of the Swiss society SUISA. Its members are Bulgarian authors and publishers, representatives of large worldwide publishing and record companies. MUSICAUTOR authorizes the use of the rights of reproduction and distribution.
- FILMAUTOR is a voluntary association of authors of audiovisual works and films. It authorizes the use of the right of reproduction and distribution of the original film and any materials derived therefrom.
- THEATERAUTOR is a voluntary association of authors of staged works, playwrights, composers, choreographers, producers and translators. The organization allows for the transmission by cable or by wireless of staged performances by television or radio.
- IZA-ART is an association of authors of works of art and photography.
- FMFC (*Fellowship of the Masters of Folkloric Crafts*) is a voluntary association which issues licenses for this activity and awards the titles Journeyman and Master.

CMS for Management of Neighboring Rights

- PROFON: This is a voluntary association of producers of audio recordings, producers of videos of musical works and of artists performing musical works. The association was created in 1998 to handle neighboring rights and is a so-called "chain collecting society." It acts in its own name and is paid by its members to: authorize the transmission by wireless and by cable of musical works; authorize the retransmission or rebroadcasting of the same by cable or by wireless; authorize internal streaming. The remaining rights of the producers and artists performing musical works are managed separately by their owners. The organization represents producers and performing artists thus acquiring the rights of performers for secondary use¹ of their performances. PROFON works on the basis of bilateral agreements when representing foreign performers. The International Federation of the Phonographic Industry (IFPI) determined that PROFON was to be the association with the smallest allowance for its activity with only 10 percent of its income deriving from remuneration for use compared to other European countries.
- BAMP (Bulgarian Association of Musical Producers): BAMP is a national structure of IFPI. It has been recognized as such since 1999 although it was officially created in 1996. The main objectives of the organization are: to fight piracy (physical and digital); to support the activity of the rights-protecting institutions and authorities in fighting infringements of intellectual property rights. Until 2002-2003, the organization was financed by IFPI and fees were collected from its members. Today, its budget is provided by PROFON under the heading of the Anti-Piracy Fund. Members of PROFON may also be members of BAMP.
- ARTISTAUTOR is a voluntary association of performing artists. It manages their rights in cases where they are not transferred to record or film producers (PROFON). It authorizes the use of mechanical rights for reproduction and distribution of live or recorded performances.

¹ Pursuant to the CRRA, secondary use of live performances or records of performing artists constitutes broadcast by wireless, cable or other technical means or public performance through audio or other equipment.



Organizations operating in the field of copyright and neighboring rights without the status of collective management societies

- ARSIS CONSULTING – established in 1991, the company aims at providing consultancy and legal services in this field at the local, national and international levels. ARSIS is the first and still the only firm in Bulgaria specializing in copyright protection, in which capacity it actively contributes to the enforcement of national and international legislation for the prevention of intellectual property crime. ARSIS works in close cooperation with the executive and the judiciary (Ministry of the Interior, Ministry of Culture) to increase the awareness and qualifications of the law enforcement institutions in the field of intellectual property protection. ARSIS represents BSA – the Business Software Alliance in Bulgaria.
- ABBRO (Association of Bulgarian Broadcasters) – a voluntary, independent non-profit organization established in 1997 which represents the interests of the radio and television industry. In December 2003, it had 60 member companies representing approximately 160 licensed radio and television operators from the entire country.

The comparative analysis of the factors of economic reality and the forms of management of copyright and neighboring rights in the free market shows that the form of copyright management is influenced by changes in the economic environment. This can be seen in real growth terms in the activities of collective management organizations for copyright and neighboring rights, acting as an economic intermediary between the holders of the rights and the users if their use generates income.

The scope of copyright is indicated by the grouping of large rights, small rights and mechanical rights.¹

Bulgarian legislation sets down a requirement that, in certain cases, the management of small rights should be made on a collective basis through collective management organizations for both copyright and neighboring rights. The Bulgarian experience shows that, in addition to the authors' small rights, their mechanical rights are also often managed on a collective basis as are certain independent rights such as the right to modify a musical work – i.e., its arrangement. All other rights are managed individually.

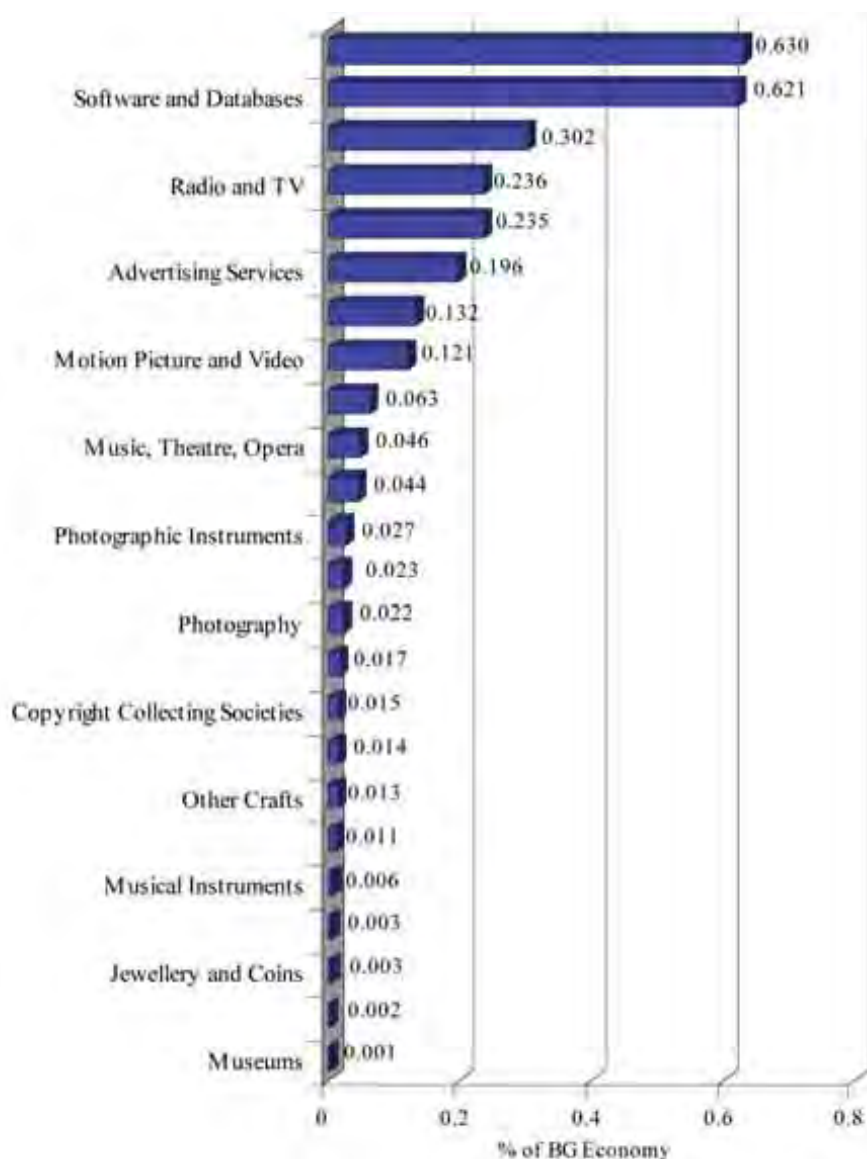
An interesting element of the Bulgarian experience is that the type of rights management exerts influence on the economic activity of the respective groups of industries and, hence, on their contribution to the economy measured with indicators such as value added, gross output, employment, etc. The results of the study show that industries with an individual principle of rights management make a greater economic contribution compared with those managed on a collective basis. As a preliminary step, we have provided a ranking of the 24 copyright-based industries from the first three groups applying the WIPO methodology (see below) in accordance with their contribution to the gross value added (GVA).

The graph below shows that the first ten include six core and four interdependent industries, with the latter directly related to some of the six core industries. The leading industries (ranking first and second) with similar values in their contributions to the GVA are book publishing and printing and software and databases, while advertising services occupies the sixth place. In all three industries, copyright is managed on an individual basis. The third and fifth places are held by the respective interdependent industries in the

¹ Each group encompasses a certain number of the property rights of the author from the content of his/her copyright. The *large rights* are related to the use of stage works, works of art, photography, etc. The *mechanical rights* include the right to reproduce the works in the form of video recordings and audio recordings. The *small rights* are related to the right to transmit by cable or by wireless means, to allow access to the work to an unlimited number of people at a time and place of their choice, Internet rights and the right of public performance of the work.

manufacture of and trading in paper and computers and related equipment. If we add the interdependent industry of manufacture of and trading in blank recording materials ranking ninth in the group, we will be able to outline an interdependent set which makes up the core of the sector of copyright-based industries. The total share of this core is 1.98 percent given a total share of the sector in the gross value added of 3.403 percent, i.e., more than two-thirds of the total contribution

Graph 1. Ranking of the Copyright-Based Industries by their Contribution to the Gross Value Added in 2005 (relative shares in %)



Of the industries where copyright management is on a collective basis, the greatest contribution (but at a much lower level than the first group) is from radio and television (fourth place), motion picture and video production and distribution (eighth place), and music, theater, and opera (tenth place).¹ What is of interest in the radio and television industry is that management of their own programs is done on an individual basis. The acquisition of the right to retransmit simultaneously with the transmission and broadcast of works of various organizations is done through a collective management organization. It is common practice for

¹ See the section on the total economic contribution of the copyright-based industries below.

producers to obtain the right to video or audio recordings and their subsequent distribution from the authors of the recorded works on a collective basis. These collective rights management organizations are: FILMAUTOR for the film industry and MUSICAUTOR for the music industry. Management in the field of stage arts is mostly individual even though THEATERAUTOR is a collective rights management organization operating in Bulgaria.

A possible explanation for the important differences in the economic contribution of management is its relatively limited experience in the free market. Collective rights management has been in existence in Bulgaria since the 1970s but the differences in modern collective management methods is due to the changes that have come about in economic and market conditions (*Appendix No. 1*) which are also reflected in the legislative amendments in the field of artistic property in the 1990s. This inevitably impacts directly on the development of the collective management of copyright and neighboring rights. For the past five years, the collective rights management organizations have established themselves institutionally and administratively and have started to be more visible participants in the copyright-based industries. Thus, for the period 2003-2005, the remuneration collected by them increased by 58 percent and amounted to BGN5.155 million in 2005.

Bulgarian Legislation in the Area of Artistic Property in the European Context: Law Enforcement

National legislation has been harmonized with the *acquis communautaire* in the area of artistic property through international regulations, conventions and directives that have been or are in the process of being ratified which are or will become part of the national law of the Republic of Bulgaria (*See Appendix No. 1, item 1*).

Competent Bodies in the Area of Law Enforcement in the Event of Unauthorized Use of Objects of Copyright or Neighboring Rights at the National Level:

- The Ministry of Culture keeps special registers of the existing organizations for collective management of copyright and neighboring rights; of the names of artistic groups; of the licensed producers of optical disks in the country.
- The Ministry of the Interior participates in the interdepartmental commission for the issue of licenses for manufacture of and trading in optical disks or matrixes for their manufacture.
- The Ministry of Justice: there is still no special judicial division or panel dealing with intellectual property issues. A positive tendency in this regard started with the establishment of a specialized division with the Prosecutor's Office dealing with crimes against intellectual property.
- The Customs Agency acts either upon information received or on its own initiative. It has the authority to detain temporarily objects of intellectual property subject to import or export to or from the country;
- The Patent Office of the Republic of Bulgaria, whose activities are mostly in the field of industrial property.
- The Ministry of Economics and Energy participates in the interdepartmental commission for the issue of licenses for the manufacture of and trading in optical disks or matrixes for their manufacture. It keeps a public register of the licenses issued, including their number and date of issue, name/title, head office, address of the management of the licensed producer/trader and type

of optical disks or matrixes produced. Twenty licenses in total had been recorded at the beginning of 2007. Since 2006, a database has been created for imported and exported raw materials for the manufacture of optical disks and equipment for their manufacture, including matrixes and other carriers. The Ministry monitors the terms and procedures for the authorization of the source identification code (SID-code).

The competent institutions interact through a national system for exchange of information related to intellectual property rights, administered, maintained and developed by an inter-agency council. The Council operates to support intellectual property protection. It is an inter-institutional consultative body assigned to achieve a high level of political and institutional representation in order to guarantee the speed and efficacy of intellectual property protection and to fight piracy.

The legal protection of the economic interests of the holders of copyright or neighboring rights pursuant to existing legislation may be realized through an administrative, civil or criminal legal procedure. We set out below some of the most important Bulgarian Government activities in copyright law enforcement during the period 2005-2006:

- The Ministry of Culture: 44 inspections of the observance of the Copyright and Neighboring Rights Act were conducted, 10,745 optical carriers and 686 computer systems were confiscated, 123 expert opinions were provided, 39 administrative acts to establish violations were issued, 10,320 certificates of transactions of transfer of copyright or neighboring rights and certificates of production were issued, 54 penal orders were drawn up.
- The Customs Agency: border measures were applied and goods were detained in accordance with 619 reports for violations of intellectual property rights or *ex officio* totaling BGN26,332,310
- The Ministry of the Interior: 2,478 specialized police operations were carried out; 7,279 sites were checked, in 1,079 of which violations were found and 305 police files were opened for checks and preliminary investigations; 166,674 optical carriers, 1,170 computer configurations with entertainment and business software with nine terabytes of information were confiscated.
- The Ministry of Economy and Energy: 15 inspections were conducted of producers and traders in optical disks, equipment for their manufacture and matrixes. No violations were found. The inspectors found that the obligatory quarterly reports provided by licensed producers and traders contained reliable data about the resources purchased and invested in the production process (*Appendix No. 2, item 7*).

PART TWO - Methodology of the Research

We have pointed out that copyright-based industries have been the subject of research and interests of practical application for less than two decades. A series of studies was carried out at first in the English-speaking countries followed by other developed countries, which show that these industries form one of the most dynamic sectors of the economy, and their pace of development is often in sectors traditionally regarded as the basis for economic development. Krisztina Penyigey and Péter Munkácsi, authors of the Hungarian study, offer a synthesised overview of the situation at the beginning of 2005. Having mentioned the pioneer surveys of Arnold Plant on the economic aspects of copyright from the mid-1930s and the later mostly theoretic studies in the field, they point out:

“...The first studies were published in Canada and Sweden in the seventies to be followed by further research works from the USA, New Zealand, the United Kingdom, Holland, Germany and Austria in the eighties. These analyses allowed for plenty of methodological considerations due to the lack of standard applicable methodology. Ever since the nineties new countries (Finland, Japan, the MERCOSUR countries – Argentina, Brazil, Paraguay, Uruguay – and Chile) have been entering the scene preparing comprehensive studies and are using an increasingly integrated standardised methodology to study the economic roles of copyright-based industries. The analysis on the 15 EU countries was prepared with the coordination and under the guidance of Robert Picard, Timo Toivonen, and Mikko Grönlund in 2003.” (*The Economic Contributions of Copyright-Based Industries in Hungary: The 2005 Report*, WIPO Creative Industries Series No1, 2005, p.287).

The authors set out the WIPO role in summarizing the existing approaches and developing a unified and standardized methodology comprising the economic contribution of copyright-based industries. This methodology was published in 2003 as *Guide on Surveying the Economic Contribution of Copyright-Based Industries* and was applied for the first time in the Singapore, Canadian and US surveys in 2004 and 2005 in the Latvian and Hungarian surveys. The present Bulgarian study is based on similar surveys in other Eastern European countries such as Romania and Croatia.

The WIPO methodology sums up existing experiences, and offers an efficient practical instrument for future studies, laying down a body of basic statistical methodologies allowing for the comparison of results from previous searches with future surveys in various countries. The authors of the WIPO methodology, amongst whom an important role was played by Dr. Dimiter Gantchev, indicate the meaning of the empirically-established fact for the larger economic contribution of the copyright-based industries in countries where the importance of these industries is understood and efforts made to improve the legislative base and law enforcement in the field of copyright and neighboring rights. The surveys following the WIPO methodology therefore have an important political and cultural impact as they not only provide economic information but contribute to a change in public and government attitudes to these industries.¹

The application of the WIPO methodology is not just a process of simple copying – it requires considerable effort by the national teams on the transfer of the internationally-applied standards and practices to the specific context of the different countries. These efforts are directly proportionate to the specifics of the

¹ Justin O'Connor draws an interesting analysis of the connection between the changes in the economic policies of the Labour Party in the UK introduced by Tony Blair and the reconsideration of the traditional cultural policy based mostly on state subsidies. This new approach connects the democratic element in cultural policy with the problems of economic development with emphasis at local level. It is based on the facts established empirically at the end of the 1980s that a large part of the cultural goods are produced outside the system of state subsidies and their creation and distribution have their own economic 'logic' (see Justin O'Connor - Public Hearing on 'Cultural Industries' at the European Parliament, Brussels, 22 April 2003).

systems for statistical information and economies reflected by those systems. Eastern Europe is a region where economies and statistics were governed by different principles for decades and their influence can still be felt today even though the principles of operation and indicators of the European Statistics (Eurostat) and other international standards referred to in the WIPO methodology have been introduced. Therefore, each national survey of the economic contribution of the copyright-based industries is unique in its own way – it should accord with international methodologies, the specific features of the economic environment and traditions, and with the need faced by the political elite of their readiness to accept these results and apply them to their activities.

What is the substance of the WIPO methodology? Mostly that it attempts to reflect the entire economic contribution of the copyright-based industries. Many of the initial studies are limited to the core industries, in which copyright and neighboring rights have greatest importance – press and literature, visual and graphic arts, music and theater, press, architecture, photography and motion pictures, but also radio and television, advertising, software. These are industries built upon the so-called actions for creation of the contents and apply to the creation of art (books, paintings, sculptures, theater, motion pictures, musical works, art photography, etc.), computer programs, radio and television programs, advertising, etc. These activities make the greatest contribution to the added value generated by the respective industry.

It is clear that the results of creation are not “consumed” in the same way as products in other economic sectors (nutrition, materials, machines, etc.). Music, theater and dance creations need performers, which before the invention of modern technologies for reproduction of sound and film (the gramophone, cinema and the subsequent digital technologies and the Internet) were the only way their works could reach the customers. The technical means however allowed the separation of created contents from live performance and made possible widespread reproduction and distribution. Thus, at the start these processes came between the interests of artists, performers and distributors and the establishment of systems for regulation of the relations between them was needed.

Therefore, to evaluate the economic contribution of these industries, the chain of activities related to the creation, formation, distribution and consumption of the artistic creation and service should be studied. The major activities are set out below in the graph, although in the real economy there is constant interaction between them:



This feature of artistic products leads researchers to try to encompass not only the activities related to the creation of the work but also the entire chain of economic activities by means of which the artistic works reach their consumers. The authors of the study of copyright-based industries in the 15 EU Member States examined two additional groups:¹

- Industries dependent on copyright including the sectors engaged in production which is strongly dependent on the core copyright-based industries. A typical example would be the production of technical means and equipment for the creation, production and use of copyright-protected products and services;
- Copyright-related industries determined as sectors engaged in production or services partly related to the products of the copyright protected creation, e.g., production of apparel, which is based on the work of fashion designers, production of jewelry, architecture – the creative activities of the architect are supplemented by the work of construction engineers, craftsmen, etc. more than in the case of a sculptor.

The WIPO methodology adopts this approach and develops it with one further group – non-dedicated support industries. These are defined as industries, in which "...a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries."² Preserving the name of the group of the core copyright-based industries, the methodology uses the term 'interdependent copyright industries', defined as "industries that are engaged in production, manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter." (WIPO Guide, page 88.) The methodology defines respectively the partial copyright industries (instead of "related" industries as used in the European study) as "industries in which a portion of the activities is related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales." (*ibid.*)

Thus the methodology identifies four groups – core, interdependent, and partial copyright industries, and a group of non-dedicated support industries. Each of these groups consists of clearly determined industries whereas small variations are possible in the different national economies.

¹ See Robert G. Picard, Timo E. Toivonen and Mikko Grönlund (2003) - *The Contribution of Copyright and Related Rights to the European Economy*, Final Report for the European Commission Directorate General – Internal Market, Media Group Business Research and Development Centre, Turku School of Economics and Business Administration, Turku, pages 16-17. They also designed the above graph.

² *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*, WIPO, Geneva, 2003, page 35.

Table 1 List of the Main Groups of Copyright-Based Industries as given in the WIPO Methodology and in the Bulgarian Study

Category	Group of Industries	
	WIPO	Bulgaria
CORE COPYRIGHT INDUSTRIES	Press and Literature	Press and Literature
	Music, Theater, Opera	Music, Theater, Opera
	Motion Picture and Video	Motion Picture and Video
	Radio and TV	Radio and TV
	Photography	Photography
	Software and Databases	Software and Databases
	Visual and Graphic Arts	Visual and Graphic Arts
	Advertising Services	Advertising Services
	Copyright Collecting Societies	Copyright Collecting Societies
INTERDEPENDENT COPYRIGHT INDUSTRIES	TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment	TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment
	Computers and Equipment	Computers and Equipment (including photocopiers)
	Musical Instruments	Musical Instruments
	Photographic and Cinematographic Instruments	Photographic and Cinematographic Instruments
	Photocopiers	
	Blank Recording Material	Blank Recording Material
	Paper	Paper
PARTIAL COPYRIGHT INDUSTRIES	Apparel, textiles and footwear	Apparel, textiles and footwear
	Jewelry and coins	Jewelry and coins
	Other crafts	Other crafts
	Furniture	Furniture
	Household goods, china and glass	Household goods, china and glass
	Wall coverings and carpets	Wall coverings and carpets
	Toys and games	Toys and games
	Architecture, engineering, surveying	Architecture, engineering, surveying
	Interior design	
Museums	Museums	
NON-DEDICATED SUPPORT INDUSTRIES	General wholesale and retail	General wholesale and retail
	General transportation	General transportation
	Telephony and Internet	Telephony and Internet
NON-ATTRIBUTABLE GROUP		Wholesale and retail of other household goods, Rentals of personal and home items

The economic activities under these industries are subject to empiric identification in the system of the national statistics followed by collection of data for them. The overall success of the study depends on the successful completion of these tasks. We describe below how they have been dealt with by the Bulgarian team.

Identification of Codes in the National Classification of the Economic Activities (NKID-2003) and Related Sources of Data

The national statistics classify the economic data for the non-financial enterprises by codes reflecting their main scope of activity. It is possible that the same company 'migrates' between different codes if it changes its activities, which occurs more often in the commerce and services sectors.

Codes for economic activities: The study was facilitated by the fact that at the beginning of 2003 Bulgarian statistics adopted the standard European Classification of Economic Activities NACE¹ (NCEA-2003) and the European Classification of the Products and Activities CPA² (NCPEA-2003). WIPO uses NACE for the identification of economic activities related to copyright and neighboring rights, which would allow the direct application of the WIPO methodology to determine the main groups of industries and their codes.³ After discussion with our international consultants it was decided that data for 2003 and 2005 should be collected so that the dynamics in these industries over a three-year period can be reflected.

Codes for import and export: The national statistics classify the data on import and export of products and services within the copyright-based industries based on the Customs Tariff of the Republic of Bulgaria. Unfortunately, the Tariff only includes trade goods, thus omitting import and export of services, which is very important for copyright-based industries. The main chapters of the Customs Tariff show that it includes goods in four of the core copyright industries (polygraphy, photography, cinematography, visual and graphic arts), with the other codes referring mainly to partial copyright industries. Some codes were attributed to indirectly related activities, e.g., import and export of staff and materials for the production of goods and services by these industries (see *Appendix 2*).

In the work on the classification of the Bulgarian codes corresponding to those of WIPO we encountered many problems. It appeared that the same problems were faced by other researchers. One of the best and most concise explanations of these problems is made in the survey for the contribution of the copyright-based industries in the 15 EU Member States (one of whom is an international consultant on the project):

"NACE data often reports within broad categories that often comingle activities and despite its efforts to harmonise statistics not all European nations use the NACE categories. Even when data are available, it is often not very rigorous because many copyright industries have traditionally been considered cultural rather than economic activities and only limited economic statistics have been gathered. Or they have been gathered in broad categories that also include a variety of activities that make the data inappropriate for assessing the impact of the copyright industries. This study has endeavoured to overcome these problems by widening the sources of data used to gather data." (Picard, Toivonen and Grönlund 2003, p.14.)

As explained below, the problems we encountered and the solutions we attempted to find were identical or similar to those of our colleagues in other countries.

¹ General Industrial Classification of Economic Activities.

² Classification of Products by Activity.

³ See WIPO Guide, page 81 – Annex III European Classification Codes, Corresponding to Some of the Copyright-Based Industries.

In applying the WIPO methodology in the same way as other European studies (Hungary, Latvia), we have established differences in some of the codes used. The main problem was that the National Statistics Institute registers economic activities at level 4-digit codes whereas separate activities related to copyright and neighboring rights fall within the mixed codes together with other activities not related to copyright. In such cases WIPO offers the use of the 6-digit CPA codes, in which activities are classified at a lower level.

Following this methodology, the relevant economic activities under each of the four groups were easily identified – core copyright industries, interdependent industries, partial copyright industries and non-dedicated support industries. It appeared also that for some industries it is sufficient to use the more general 3-digit code, e.g., code 72.2. (software development), and in some places even the 2-digit codes. The classification was changed for two reasons. First, in collecting data the National Statistics Institute uses only the NCEA-2003 at level 4-digit codes. Therefore, the survey should have used only these codes, which required breaking down the 2- and 3-digit codes. This was done relatively easily, but the more serious problem was the impossibility of using 6-digit codes under NCPEA-2003 (the Bulgarian CPA equivalent), which led to substantial difficulties in the calculation of the contribution of copyright-based industries under the “mixed” or “non-differentiated” 4-digit codes (see the relevant section below). The second reason for changing the initial system of codes was that it was impossible to collect important data for the economic contribution of copyright-based industries from national statistics. Among these are royalties paid on licensing of products or services in the copyright-based industries, the economic contribution of self-employed persons in the copyright-based industries, income of companies for collective management of rights, etc. Additional sources were also searched.¹ The final list of codes used in the study is provided at *Appendix 3*.

As regards the codes for import and export of products of these industries, we encountered an unexpected problem – confidentiality. From 136 codes applied by us, 27, i.e., almost 20 percent gave no or only partial data due to confidentiality. This included data for the import and export not only of the products in the jewelry sector and the raw materials for it – which was expected, but also for such goods as: broken glass and waste, musical wind and percussion instruments, cameras, postage stamps, radio receivers, tape-recorders, etc. The lack of information on these codes left serious gaps in the generalization of the data for import and export in some of the sectors (jewelry, musical instruments, artistic works and, partially, in glass products).

The Problem with Mixed Codes in NCEA-2003 (the Bulgarian Version of NACE)

The problem with mixed or non-differentiated codes under NKID-2003, i.e., codes containing data for several economic activities relevant to the study, or codes in which such data are presented with data for other activities non-related to copyright was the most serious problem for the Bulgarian study. In total the team encountered 12 such codes, six of them with high values of gross product, number of employees and value added. The non-weighted share of value added in the six main codes in this group² in 2005 is equal to 1.29 percent of the gross value added (1.1 percent of GDP) and is comparable to the share of the core copyright industries (1.46 percent of the GVA and 1.25 percent of the GDP for 2005).

¹ We received data on the amount of the import and export royalties upon use of products and services of the copyright-based industries from the Bulgarian National Bank.

The collective management of copyright societies provided us with information on income. To calculate the contribution of freelancers we have used a methodology applied by the NSI for calculation of such contributions by determining the gross value added and the gross public product of the country.

² The other six codes are allocated to different sectors in one group or are too small to calculate.

Table 2. Data for the Six Common Codes (51.43; 51.47; 51.85; 52.45; 52.48; 74.87)

	2003				2005			
	Number of enterprises	Number of employees	Gross output	Value added	Number of enterprises	Number of employees	Gross output	Value added
I. CORE COPYRIGHT INDUSTRIES	8857	43797	1469496	324831	9167	49204	2159196	524148
V. NON-ATTRIBUTABLE GROUP	12345	43730	776089	272833	14011	52694	1200639	463763

The existence of such large non-differentiated codes sometimes covering many different economic activities demonstrates the inadequacy of the national system for registration of economic activities and does not allow the precise determination of the economic contribution of new and rapidly developing sectors such as the industries based on copyrights and neighboring rights.¹

Therefore the study team made considerable efforts to collect information on quantity, expert evaluations and other relevant data, which would allow for more precise estimation of the share of the copyright-related economic activities in these mixed codes. The main result was redistribution of the values under nine of the codes with the respective industries according to the WIPO classification. The values under the remaining three codes for which no justified procedure for reallocation was possible were separated into a new – fifth group. The values calculated for this group with the respective copyright factor were added to the generalized data for the economic contribution of the copyright-based industries.

Table 3. Non-Weighted Data for the Fifth Group following Re-Distribution

	2003				2005			
	Number of enterprises	Number of employees	Gross output	Value added	Number of enterprises	Number of employees	Gross output	Value added
I. CORE COPYRIGHT INDUSTRIES	8985	44420	1500874	335449	9559	50239	2210050	539158
V. NON-ATTRIBUTABLE GROUP	6273	20918	314332	114930	6999	24349	463254	193741

The methodology used for the weighting of each of the nine codes is presented in *Appendix 4*.

Identification of the Sources of Information for the Selected Codes

The WIPO methodology provides the data necessary for the activity of the non-financial entities of copyright-based industries – gross product, gross value added, number of employees, number of entities. These are calculated based on more specific data according to the standard form of the National Statistics Institute *Annual Report of the Non-financial Entities*. The data collected by the National Statistics Institute differ for small and medium-sized entities keeping simple accounts from the accounting of the larger companies keeping more detailed accounts. The data for the two groups are calculated according to a special methodology of the National Accounts Department which also takes into account the indications for self-employed persons (see *Appendix 5*).

¹ The changes in the classification codes in NKID-2003 made in the spring of 2007 partly reflect this problem and we hope the situation will be improved in the near future.

The Bulgarian study is specific with regard to the WIPO methodology for calculation of the gross product and gross value added – it was applied not only to the industries but also to the data under each of the 4-digit codes. This approach allowed the processing of other relevant primary data from the accounting balance of the non-financial entities from which important information was received for several aspects of their activity – fixed non-tangible assets (including the groups: rights over intellectual property products; software, products of development activity and other fixed non-tangible assets), net income from sales; profit from usual activity, intermediate consumption, number of employees (the number of individuals employed under contract and working owners) (see *Appendix 6*). The data for the dynamics of the fixed non-tangible assets (FNTA) for instance played an important role in determining the copyright factor of the partial copyright-based industries (see *Appendix 8*, item 2).

In addition, data for the sales and commercial outlets for certain groups of goods related to the copyright-based industries were processed (see *Appendix 7*) with the cost of scientific research and the number of persons engaged. The last two groups of data do not fall within the purpose of the study but allow for a detailed evaluation of the market situation and can be used for determining the share of the separate copyright-based industries under one of the mixed codes (see *Appendix 10*, items 3 and 4).

The Economic Contribution of the Cultural Institutions

The survey provides data for the economic contribution only of the non-financial entities. This means that it does not take into account income from large cultural institutions such as national TV and radio, state and municipal theaters, opera, dance groups, state and municipal museums and galleries, state publishers, community libraries. This is because Bulgaria does not collect separate data for these cultural institutions – they are included in cultural activities together with all other subsidized activities in the field of culture and art. The data for this group are provided by the respective state institutions and municipalities. According to NSI experts the income (including from advertising) of these cultural institutions does not exceed 20 percent of the budget subsidy received. NSI computes value added for the activities of these public institutions as the sum of primary input costs such as: salaries, net taxes on production and consumption of fixed capital where the operating surplus is assumed to be zero. In addition to GVA at basic prices, GDP measured at market prices includes indirect taxes and duties (which concern to a greater extent goods unrelated to the creative industries) thus changing the basis for comparison.

Based on these assessments, the survey team reached the conclusion that at present a better idea about the economic contribution of the copyright-based industries can be provided by their share compared to GVA at basic prices rather than GDP at market prices. Following the WIPO methodology, we have based our calculations on GDP. However, we have also provided the calculations for GVA.

The Copyright Factor

Measuring the economic contribution of the copyright-based industries in other countries, our colleagues concluded that this contribution is different for each of the above-defined four groups of industries. Furthermore, differences are also possible between the separate industries within one and the same group. The economic statistics however do not differentiate to what extent the value added created in one industry is due entirely to the creative copyright-protected activities and to what extent it includes other activities unrelated to these rights (although the latter directly or indirectly contribute to the realization of the former).

The solution offered by the WIPO methodology relates to the introduction of the copyright factor. Its purpose is to eliminate components, which are unrelated to copyright and neighboring rights in economic activities classified under the codes of the respective industry. The methodology defines it as "...The weighting of

the portion of a specific industry that can be attributed to copyright or the level of dependence on copyright has been referred to in some of the surveys as the copyright factor. It has to be done in relation to all industries that are not core copyright-based industries where the contribution will be counted as 100%.” (WIPO Guide, page 57). In addition to a percentage, the weighting can also be expressed by a number with a value between 0 and 1, where 1 (or 100 percent) is accepted for the core industries. The values of the main economic indicators – value added, number of employees, gross product, etc., are multiplied by this number (or percentage).

Different methods are used for the weighting of the copyright factor in the other three groups, such as surveys among entrepreneurs and managers of companies in the respective sectors, interviews with experts, secondary analysis of indirect economic data such as the competitiveness factor, investments in education, scientific and development activity, etc. The researchers emphasize that these weights almost always depend on the specific conditions in the respective economy.¹ All these methods, however, are related to substantial additional expense, and in some cases the relation between the expense incurred and the precision of the evaluation is highly unfavorable. As a solution, if the resources of the research team were limited, the WIPO methodology advises that international comparisons be taken into account as an important source of information, i.e., in spite of the national specifics, it is possible to use the approaches and solutions of the researchers in countries similar in legal frameworks, structure of the economy, production practices, working conditions, etc. The authors of the methodology give as an example the experience of Norway in which the data missing under certain categories were completed through respective re-calculation of the data from the Finnish study (see WIPO Guide, page 58).

Based on our own research and similar international comparisons, many important studies (such as those studies in the US, Hungary, etc.) also adopt value 1 for the interdependent industries. The reason is that these are closely integrated in the creation, distribution and use of the products of the core copyright industries and a large part of the value added they create is directly related to those industries.² A solution has also been found for the recalculation of the economic distribution of the fourth group – non-dedicated support industries. The contribution to copyright for this group is weighted as being equal to the share of the first three groups (core, interdependent and partial) in the national GDP or the GVA.³

Therefore the efforts of the researchers aim mostly to determine the copyright factor in the partial industries where substantial differences can be found – in the different studies it varies from 0.4 percent for the textile industry in Singapore to 50 percent for games and toys in Hungary. Here, all the methods for direct and indirect evaluation described in the WIPO Guide (pages 58-59) are used. The recommendation in the WIPO methodology that irrespective of national variations the contribution of the industries from the three groups except the core copyright industries should be around 30 percent of the total contribution of all copyright-based industries should be taken into account.⁴

¹ Globalization, efficacy of legal security and legal enforcement systems, share of the informal economy, traditions in the use and management of non-tangible assets, the power of the trade unions and organizations for collective management of rights, etc.

² Other research teams disposing of substantial resources are trying to differentiate in more detail the contribution of the interdependent industries. An example is the internal separation of this group between core and partly interdependent copyright industries, which for convenience we have presented in our list. A different copyright factor is introduced on this basis for the different industries in this group. In spite of the considerable efforts of the authors of this and other similar studies, the indirect data on which the copyright factor for the different industries is determined are still disputable.

³ For example: if the industries in the first three groups generate in total 5 percent of GDP, the copyright factor of the non-dedicated support industries will be 0.05 percent – the total value added generated by them will be multiplied by this.

⁴ In 2001 in the US, the core industries amounted to 67 percent of the total contribution and this share varies between 82 percent for Finland in 1997 and 51 percent for Australia in 2000 (WIPO Guide, page 101) : in the US in 2005 this share fell to 59 percent (Siwiek, S. – *Copyright Industries in the US Economy. The 2006 Report*). Using this analysis in the Bulgarian study this share is 54.7 percent for 2003 and 55.8 percent for 2005 (see the next section for more details).

The Bulgarian study accepts this approach to determining the copyright factor of the main and interdependent industries (value 1 or 100 percent for both). The same approach was applied to the calculation of the contribution of the group of non-dedicated support industries (see *Appendix 8, item 3*). Our efforts also aimed mainly at determining the copyright factor of the partial copyright-based industries.

Table 4 presents the solutions we adopted for the weights of the copyright factor for each industry. The arguments for the solutions adopted for the group of the partial copyright-based industries compared to the Singapore and Hungarian studies are presented in *Appendix 9*.

Table 4 Copyright Factors adopted in the Bulgarian Study

I. CORE COPYRIGHT INDUSTRIES	Copyright factor
Press and Literature	1.000
Music, Theater, Opera	1.000
Motion Picture and Video	1.000
Radio and TV	1.000
Photography	1.000
Software and Databases	1.000
Visual and Graphic Arts	1.000
Advertising Services	1.000
Copyright Collecting Societies	1.000
II. INTERDEPENDENT INDUSTRIES	
TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Gaming Equipment	1.000
Computers and Equipment (including photocopiers)	1.000
Musical Instruments	1.000
Photographic and Cinematographic Instruments	1.000
Blank Recording Material	1.000
Paper	1.000
III. PARTIAL COPYRIGHT INDUSTRIES	
Apparel, Textiles and Footwear	0.006
Jewelry and Coins	0.200
Other Crafts	0.400
Furniture	0.050
Household Goods, China and Glass	0.005
Wall Coverings and Carpets	0.040

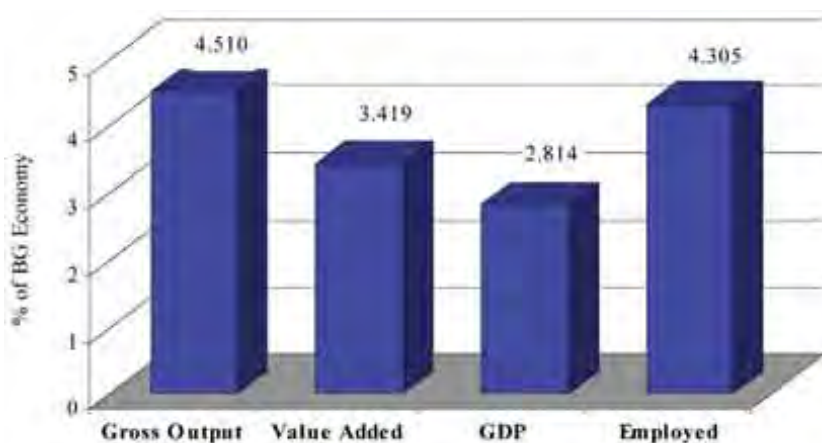
Toys and Games		0.400
Architecture, Engineering, Surveying		0.100
Museums		0.500
IV. NON-DEDICATED SUPPORT INDUSTRIES	2003	2005
General Wholesale and Retail	0.021	0.028
General Transportation	0.021	0.028
Telephony and Internet	0.021	0.028
V. NON-ATTRIBUTABLE GROUP		0.550

PART THREE - Contribution of the Copyright-Based Industries to the Bulgarian Economy

1. Evaluation of the Overall Economic Contribution of Copyright-Based Industries

In 2005, 104,814 people were engaged in economic activities related to copyright and neighboring rights in Bulgaria, i.e., almost one in 20 of the workforce. They produced a gross output of BGN4.155 billion and created a value added of BGN1.204 billion. The graph below shows their share in the economy as a whole – it is the highest compared to gross output and employment and the lowest when compared to GDP – 2.814 percent.¹

Graph 2. Share of the Copyright-Based Industries in the Key Economic Indicators of Bulgaria in 2005



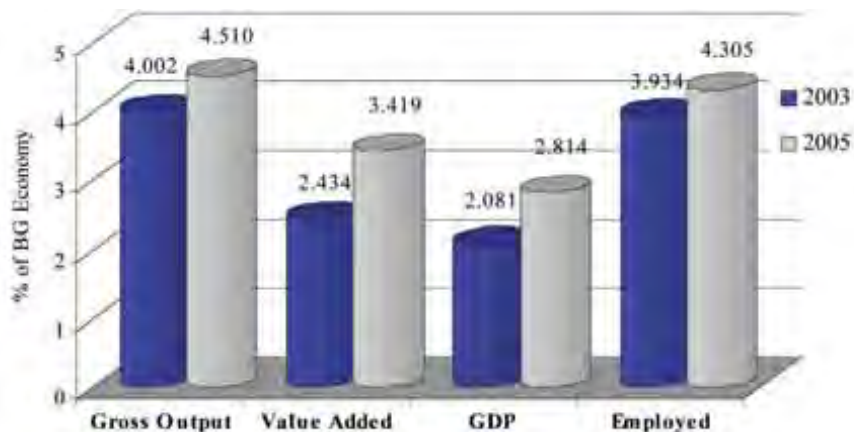
The study registers significant growth in this sector for the period 2003-2005. In two years the gross value added calculated in regard to the current price index grew by 50 percent; gross output increased by 33 percent and employment by 13 percent. The growth in value added far exceeded the growth rate of the economy as a whole (11.5 percent) and turned the sector into one of the fastest developing. We foresee a booming industry which, if given adequate public support, could become one of the driving forces of economic growth in Bulgaria in the future.

The graph below shows the increase measured with the relative shares of the respective indicators in the economy as a whole for the period in question.

¹ As already mentioned, the best measurement is made in comparison to the gross value added to the extent to which the adjustments made in the calculation of GDP reflect to a lesser degree the contribution of the copyright-based industries (see Part 2).

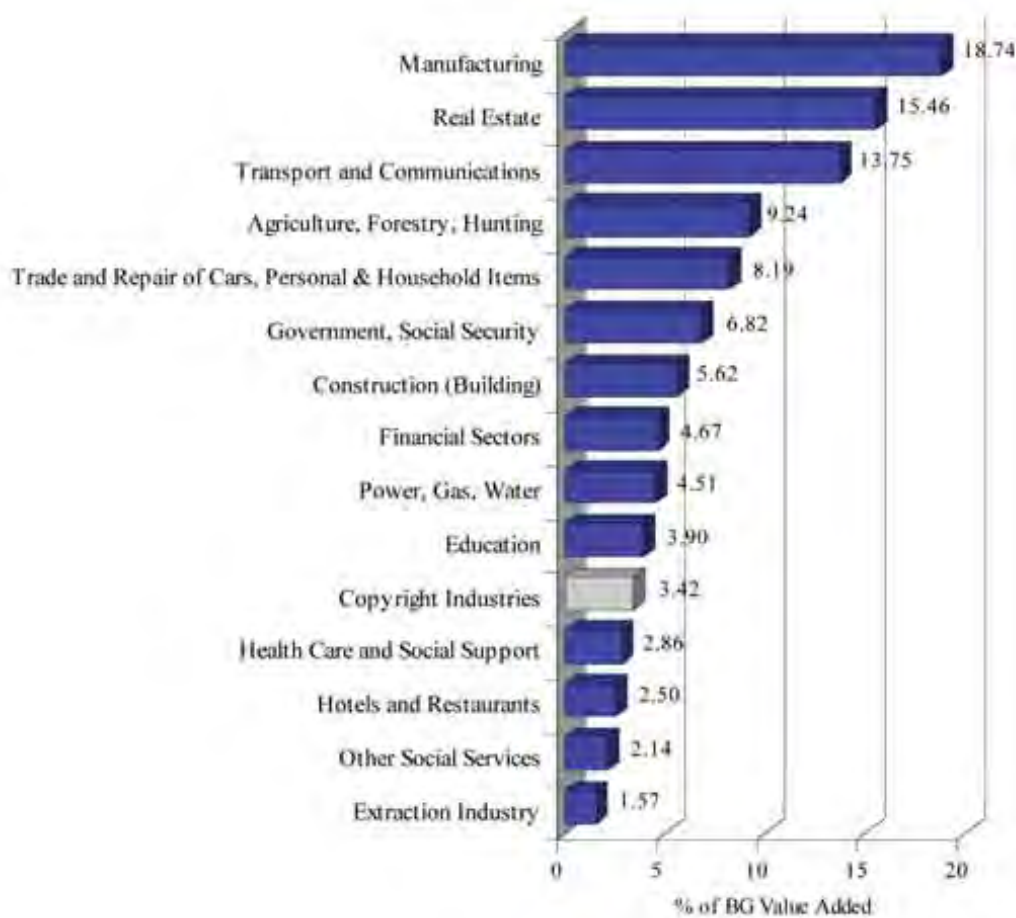


Graph 3. Dynamics of the Share of the Copyright-Based Industries in the Main Economic Indicators in Bulgaria for the Period 2003 – 2005



When compared to the share of the value added in the monitored sectors in 2005, the copyright-based industries rank eleventh – above healthcare, hotels and restaurants, and the extraction industries.

Graph 4. Comparison of the Copyright-Based Industries with the Other Economic Sectors (share in GVA), 2005

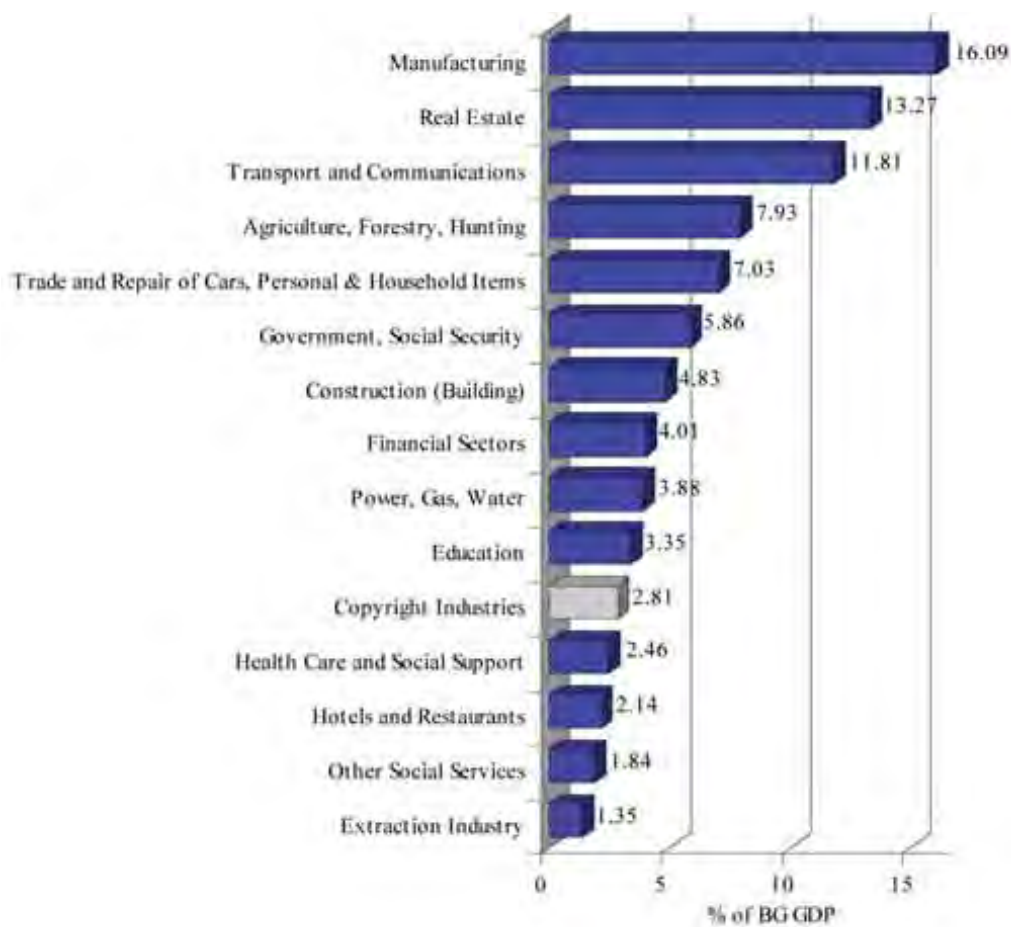


(Source: 2005 Main Macroeconomic Indicators, NSI, p. 74, Table 2.3.1).

The value added generated by copyright-based industries (3.42 percent) is around three-quarters of the value added in such a significant sector as generation and distribution of electric power, gas and water and makes a much greater contribution than hotels and restaurants.

As for the contribution to GDP, the share of the copyright-based industries is 2.81 percent – a value which is more than double the share of the extraction industries and higher than that of hotels and restaurants.

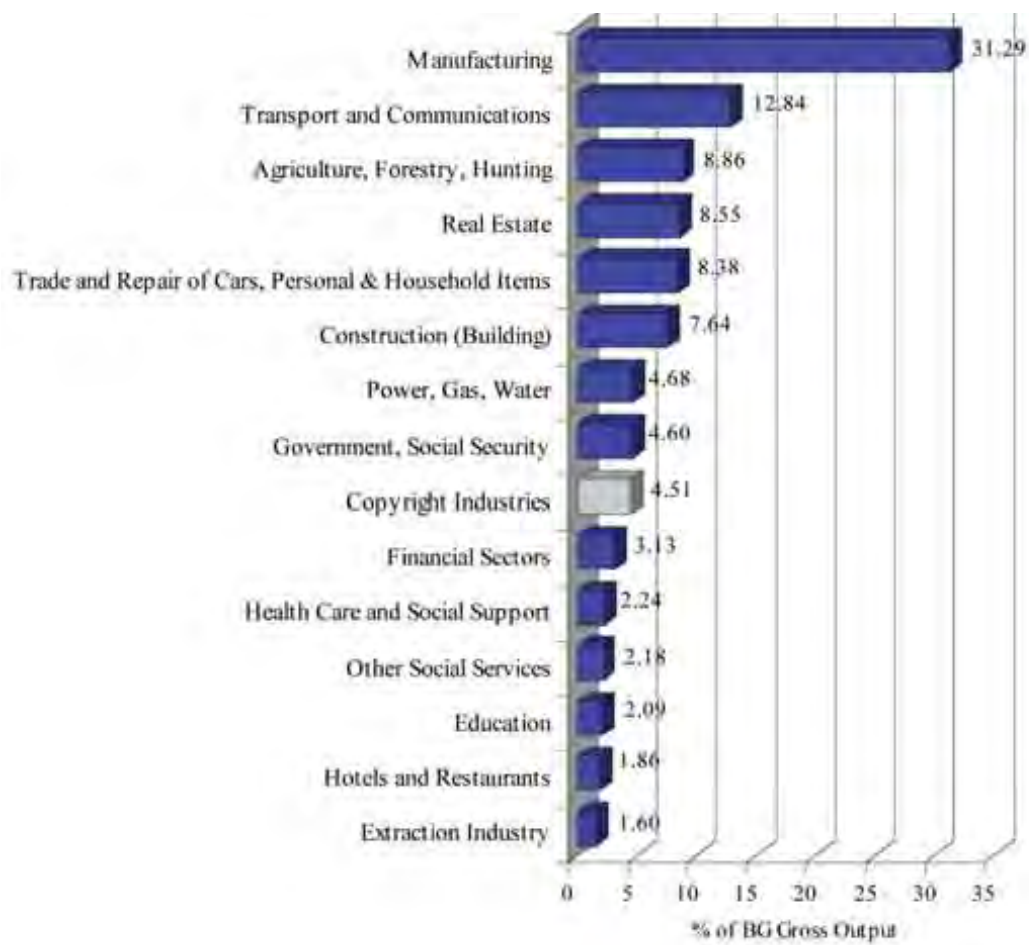
Graph 5. Comparison of the Share of the Copyright-Based Industries with the Economic Sectors (share in GDP), 2005



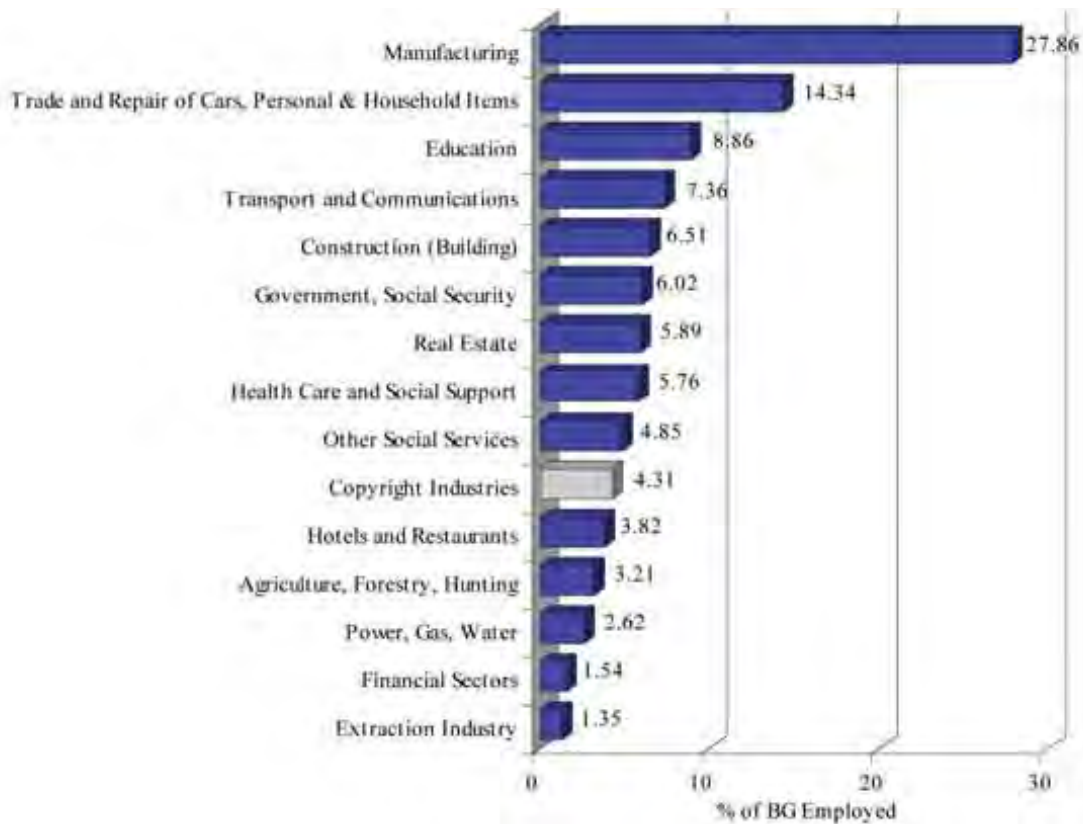
(Source: 2005 Main Macroeconomic Indicators, NSI, p. 74, Table 2.3.1).

In view of the gross output, the copyright-based industries rank above the sectors of education and finance which rank ninth. In terms of employment, they rank tenth ahead of hotels and restaurants and agriculture, forestry, hunting and fishing.

Graph 6. Comparison of the Copyright-Based Industries with the Economic Sectors (Share of Gross Output), 2005



Graph 7. Comparison of the Copyright-Based Industries with Other Sectors in Terms of Employment, 2005



Comparison of the copyright-based industries with the other sectors reveals a small but significant sector in the Bulgarian economy – with values greater than or close to those in sectors like generation of electric power, hotels and restaurants, healthcare and social work, and the extraction industries. This however, conceals the growth rates where the copyright-based industries are among the leaders. That is why we must bear in mind the pace of change in the relative shares of the individual industries over a given period.

It must also be noted that the sector is slightly undervalued in these comparisons: this is because copyright-based industries are not monitored separately in the national statistics but their economic results are included in the data on other sectors. In this sense, the proposal for a change in the system of calculating national statistics made in the methodological section must also include a change in the methodology of calculation for the economic sectors.¹

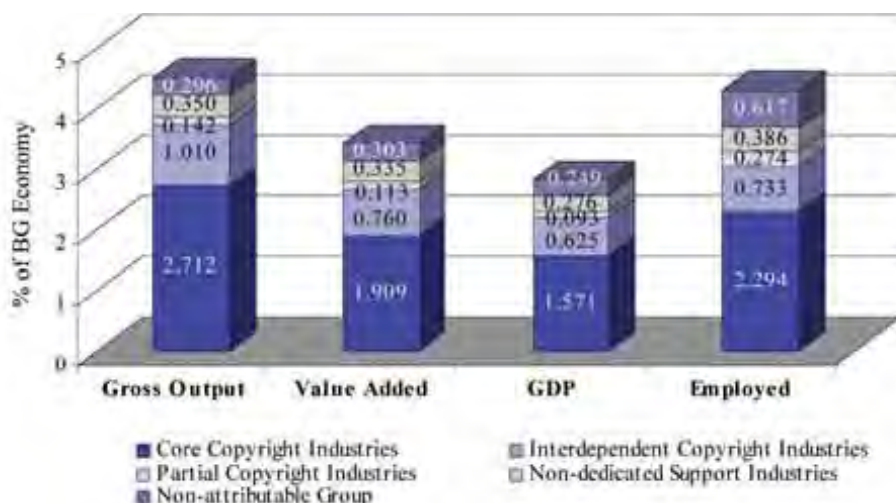
¹ An adequate procedure requires that the shares of the other sectors be reduced with the share of the copyright-based industries. This, however, cannot be done proportionally because the economic activities of the copyright-based industries are not included on a random basis in these sectors. For this purpose, there must be a change in the methodology of calculation of the sectors to include the copyright-based industries as a separate sector.



2. Distribution of the Total Economic Contribution of the Individual Groups of Copyright-Based Industries

As indicated above, it was impossible to attribute all the codes of economic activity in the four groups identified in the WIPO methodology, making it necessary to group some of them in a fifth, mixed group. We set out below the share of these five groups in terms of the main indicators. The choice of a fifth group was an expression of our conservative approach as we do not yet know the exact proportions in the distribution of the common codes and we expect deviations overall.¹ That is why we analyze the contributions of the separate industries in the four groups applying the WIPO methodology and then discuss separately the contribution of each of the three codes in the fifth group.

Graph 8. Share of the Five Groups of Copyright-Based Industries in the Key Economic Indicators in 2005

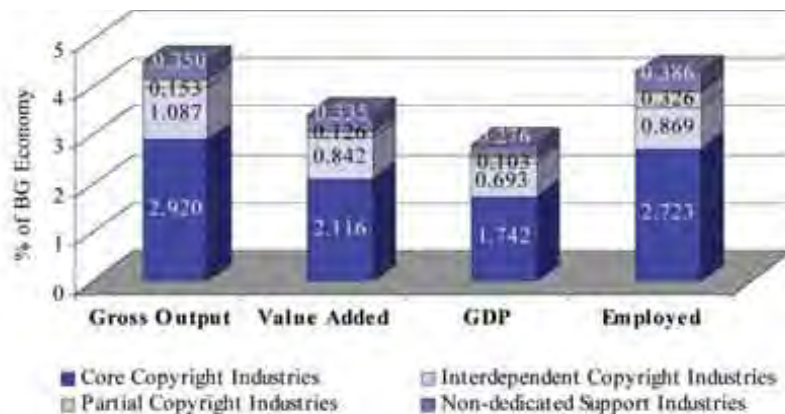


Analysis of the activities related to copyright-based industries under the mixed codes shows that they mostly fall within the group of the core and interdependent industries. That is why it can be claimed that their proportional distribution among the four groups of copyright-based industries reflects the real economic situation. The computation is logical because, as shown in *Appendix 4*, the three codes in the group include the weighted values of the economic results of retail and wholesale trading in and lease of products of copyright-based industries joined to the products of other activities unrelated to copyright-based industries. In this mix, the economic activities related to copyright-based industries are represented with a much greater share than the other, unrelated activities, taken into account in the additional weighting of the data on these codes.

Before the national statistics break down the mixed codes and start to collect independent data about the economic activities related to the copyright-based industries and for the purposes of practical policy in the sector, it is admissible to redistribute the fifth group among the first three groups proportionate to the contribution of each. This is also necessary with a view to ensuring international comparability of the data. The following graph represents the ratio between the four copyright-based industries after the recalculation of the fifth group:

¹ It is possible for the data to be distributed to the core and interdependent industries in an even better ratio.

Graph 9. Recalculated Share of the Four Main Groups of Copyright-Based Industries in the Main Economic Indicators in 2005



The graphs show that the core copyright industries make the greatest economic contribution to the sector as a whole – in 2005, they contributed 60.1 percent to the share of the copyright-based industries in the gross output, 55.6 percent of GDP and GVA and 53.3 percent of employment. When redistribution to the fifth group is taken into account, their contribution grows to 64.7 percent of the gross output, 61.9 percent of GDP and GVA and 63.3 percent of employment respectively. If we look at the first two groups only – core and interdependent copyright, with more than 2.96 percent of value added, they remain in eleventh place, exceeding the share of healthcare and hotels and restaurants.

Taken alone, the value added of the core copyright industries contributed 2.12 percent to GDP in 2005. Thus, it exceeded the share of the extraction industries and is close to the share of the value added generated by hotels and restaurants (see the previous section). Budget subsidies for culture in the same year amounted to 0.72 percent of the gross internal product, i.e., one-third of the value generated by the core copyright industries. If we exclude software and advertising, which do not have a direct relation to culture, from the contribution of the core copyright industries to the gross value added generated in the economy, we would again obtain a share of 1.27 percent of GVA, i.e., almost twice as high as public expenditure on culture in the form of budget subsidies. Moreover, the subsidies given to the sector making the greatest contribution to the value added generated in the group of the core copyright industries – book publishing and printing – amounted to a fraction of the total sub-sidies (0.12 percent).

These results have a direct bearing on public policy in structuring and management of subsidies for cultural activities. They must not be considered only a “public good”, distributed by the authorities in view of the long-term cultural and social needs of society, but be thought of as partial compensation for the copyright-based industries in their efforts to meet the cultural and social needs of society – as a remedy for market failures when meeting these needs and as seed capital for the development of new business. This entails the expansion of public and private partnerships in the management of these subsidies.

In absolute numbers, the core copyright industries produce a gross output of BGN2.498 billion and value added of BGN672 million. There are 55,861 people employed in them which is three times more than the number employed in the next group of interdependent industries and eight times more than the weighted values for the partial industries. As for value added and gross output, the fifth undistributed group of activities occupies fourth place while in terms of employment it ranks third. This shows the group’s potential in refining the national statistics which will give a more accurate recording of the contribution of such activities as retail and wholesale trading in and leasing of a number of products of copyright-based industries.

The tables below show the indicators for each of the industries and their respective relative shares in the national values.

Table 5. Economic Contribution of the Main Copyright-Based Industries in 2005

CI	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
Core Copyright Industries	2 498 559	2.712	672 270	1.909	1.571	55 861	2.294
Interdependent Industries	930 389	1.010	267 539	0.760	0.625	17 835	0.733
Partial Copyright Industries	131 247	0.142	39 888	0.113	0.093	6 682	0.274
Non-Dedicated Support Industries	322 137	0.350	117 973	0.335	0.276	9 409	0.386
Non-attributable Group	272 769	0.296	106 558	0.303	0.249	15 027	0.617
Copyright-Based Industries	4 155 101	4.510	1 204 229	3.419	2.814	104 814	4.305
Bulgarian Economy	92 132 091	100	35 220 410	100	82,296	2 434 726	100

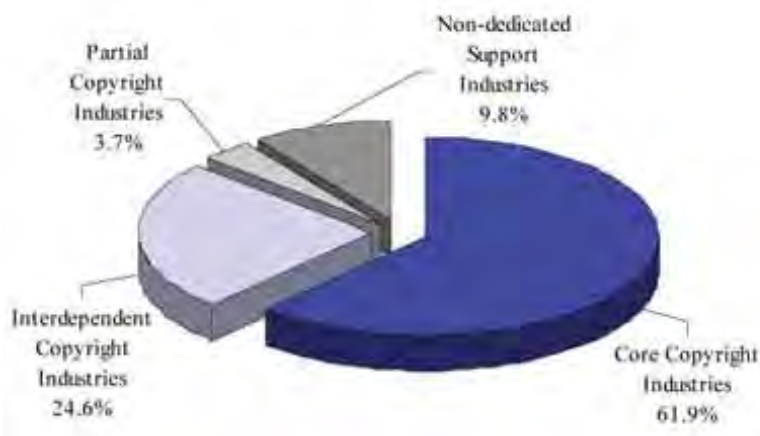
Table 6. Economic Contribution of the Main Copyright-Based Industries in 2005 after Recalculation of the Fifth Non-Distributable Group

CI	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
Core Copyright Industries	2 689 989	2.920	745 390	2.116	1.742	66 304	2.723
Interdependent Industries	1 001 672	1.087	296 638	0.842	0.693	21 169	0.869
Partial Copyright Industries	141 303	0.153	44 227	0.126	0.103	7 931	0.326
Non-Dedicated Support Industries	322 137	0.350	117 973	0.335	0.276	9 409	0.386
Copyright-Based Industries	4 155 101	4.510	1 204 229	3.419	2.814	104 814	4.305
Bulgarian Economy	92 132 091	100	35 220 410	100	82,296	2 434 726	100

Graph 10. Relation of the Five Groups of Copyright-Based Industries in Terms of the Value Added



Graph 10. Relation of the Four Copyright-Based Industries in Terms of the Value Added after Re-Distribution of the Fifth Group



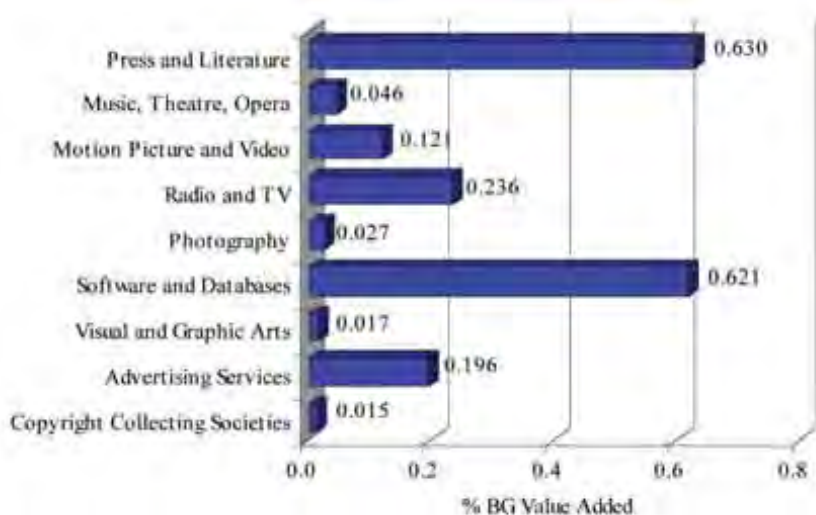
When the dynamics for the period 2003–2005 and inflation are taken into account, the fastest growth in value added can be seen in the non-dedicated support industries – 63 percent, which must be interpreted as a reflection of the overall growth in the field of trading, transport and communications – some of the most rapidly developing sectors. They are, however, closely followed by the largest sector of core copyright industries – 53 percent, followed by the partial (40 percent) and interdependent industries (39 percent). As is true for the copyright-based industries as a whole, the growth in the individual groups exceeds many times the national growth rates of GDP (11.5 percent) and GVA (10.8 percent) for the same period.



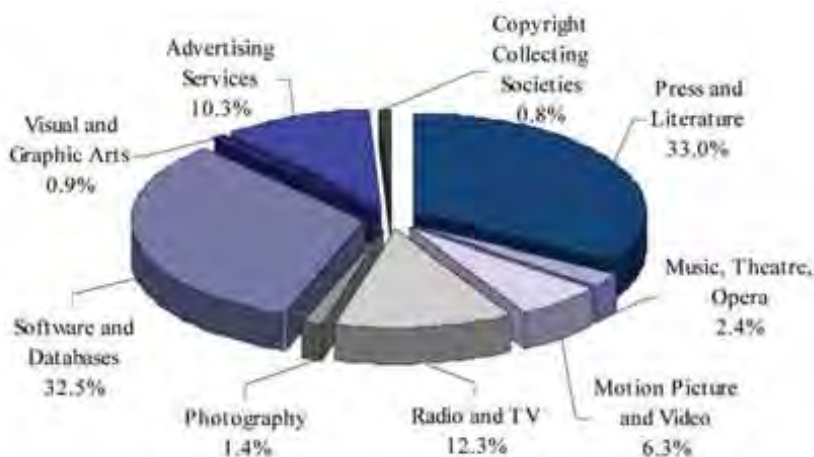
3. Economic Contribution of the Core Copyright Industries

The contribution of the individual industries from this group to the gross value added generated by the Bulgarian economy in 2005 can be seen below.

Graph 12. Share of the Core Copyright Industries as a Percentage of GVA in 2005¹



Graph 13. Relative Shares of the Core Copyright Industries (in Terms of Value Added)



In terms of value added and employment, the two largest core copyright industries are book publishing and printing, and software and databases. Next in terms of value added are radio and television, advertising and motion picture and video whose values are much lower. The table with the figures for the three economic indicators studied reveals other interesting factors too.

Table 7. Economic Contribution of the Core Copyright Industries in 2005

CI group	Cross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
Press and Literature	761 043	0.826	221 784	0.630	0.518	25 116	1.032
Music, Theater, Opera	33 927	0.037	16 346	0.046	0.038	1 207	0.050
Motion Picture and Video	143 524	0.156	42 555	0.121	0.099	2 182	0.090
Radio and TV	211 211	0.229	83 018	0.236	0.194	3 283	0.135
Photography	22 320	0.024	9 623	0.027	0.022	2 034	0.084
Software and Databases	480 926	0.522	218 731	0.621	0.511	11 809	0.485
Visual and Graphic Arts	21 874	0.024	5 959	0.017	0.014	975	0.040
Advertising Services	817 691	0.888	69 100	0.196	0.161	9 226	0.379
Copyright Collecting Societies	6 043	0.007	5 155	0.015	0.012	30	0.001
Core Copyright Industries	2 498 559	2.712	672 270	1.909	1.571	55 861	2.294
Bulgarian Economy	92 132 091	100	35 220 410	100	82.296	2 434 726	100

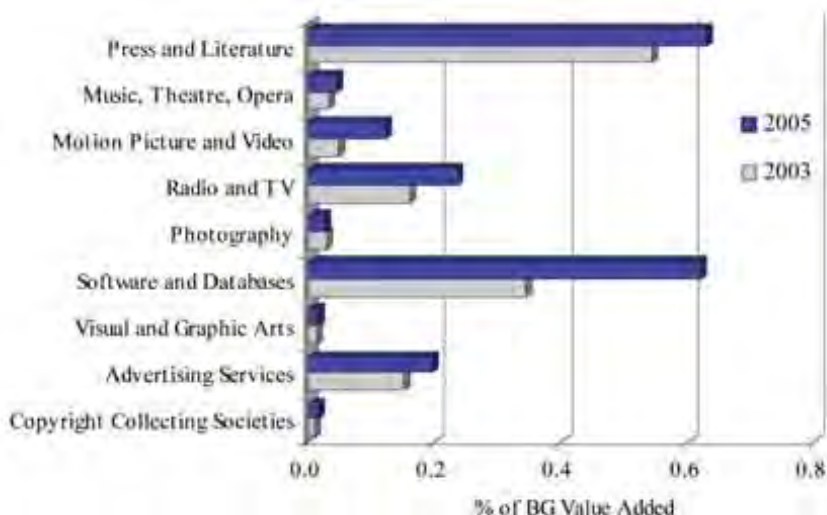
In view of the gross output, advertising services ranks first, while book publishing and printing and software and databases come second and third. Advertising also has one of the highest values of gross output per employee. Yet, to the extent to which the sector ranks fourth by value added, the productivity (value added per employee) is significantly lower.

The value added per employee is highest in radio and television – BGN25,287, followed by motion picture and video production and distribution with BGN19,503 and software and databases – BGN18,522. This compensates partly for the relatively low number of people employed in the first two industries (fourth and fifth in terms of this indicator). Radio and television also occupies third place in terms of the value added. It is appropriate here to cite the analysis of our Hungarian colleagues which, to some extent, explains the variations in the industries between the individual economic indicators which we also find relevant to the Bulgarian study:

“...The difference in the rankings based on the contributions to gross output and gross added value can be explained by the different material demands, intellectual and outside labour intensity in the specific core copyright industries. The greatest contribution of press and literature to gross output is due to its relatively greater material intensity than that of software and databases. As for radio and television, productions are predominantly made with the engagement of outside production companies, which is also reflected in the higher contribution to gross output since the value of gross output – given that all conditions are unchanged – is directly proportional to the increase in the division of labour.” (National Studies on Assessing the economic contributions of Copyright-Based Industries, WIPO, 2006, p. 320)

The Bulgarian study allows us to trace the development of the core copyright industries by the economic indicators measured, albeit for a relatively limited three-year period. In 2005, the value added generated by these industries and recalculated in view of the inflation index grew by 53 percent in comparison to 2003. The greatest growth is observed in motion picture and video production and distribution: +166 percent, i.e., more than triple. The main activity in this industry – motion picture and video production – shows the highest growth among all copyright-based economic activities: +225 percent. In 2003, this sector was in the same economic bracket as sectors like theater and music, visual and graphic arts and photography. It was assessed separately three years later and became an industry in its own right.

Graph 4. Dynamics of the Core Copyright Industries in Terms of the Changes in the Value Added for the Period 2003 – 2005

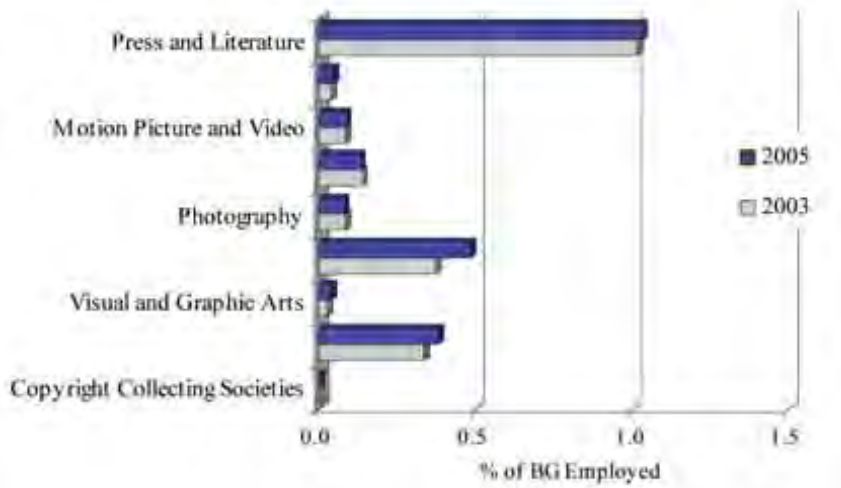


The second fastest developing sector is software and databases, registering growth of 93 percent; its key activity of development of original software for customer needs and design of websites grew by +108 percent. High rates, yet from a lower base, are shown by the sectors of radio and television (57 percent) and music, theater and opera (54 percent). The collective rights management companies also increased authors' remuneration collected by them by 58 percent.

This growth is also clearly visible in terms of employment. A little over 2 percent of the people employed in the Bulgarian economy worked in the core copyright industries (2.116 percent in 2003 and 2.294 percent in 2005); half of this figure is due to book publishing and printing – 1.032 percent of the total employed. During the three-year period, the number of people employed in the core copyright industries grew by 6,097 or 12 percent. For the sake of comparison, the increase in employment in the economy as a whole for the same period was 83,094 or 4 percent.

One can clearly see a group of three industries with a very low level of change in employment, and, in radio and television, it is even negative at –1 percent. The highest growth computed from a low base is in visual and graphic arts while the increase in software and databases, 34 percent, is the most significant given that the real increase in 2005 in comparison to 2003 is almost 3,000 people, i.e., half of the total increase in employment in the core copyright industries.

Graph 15. Dynamics of the Core Copyright Industries in Terms of the Changes in Employment for the Period 2003 – 2005



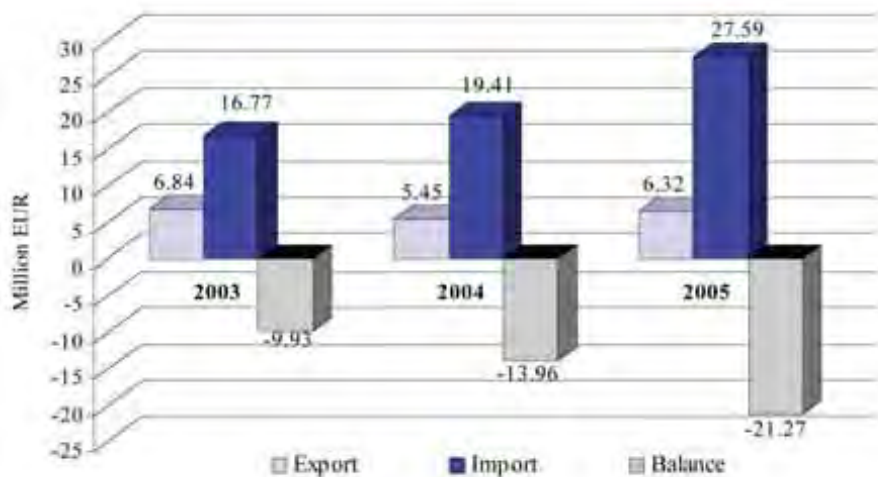
The indicators used in comparisons are interrelated and behind the numbers and rankings there are real problems in the development of each industry. Every company and organization constantly solves problems of increasing revenue by increasing the intensity of production, including quality and technical improvement, expansion of markets, etc. That is why the current needs and critical points in the development of every sector are different – for some this may be the shortage of experts (software, advertising services), for others – the promotion of products and services created abroad (motion picture and video, visual and staged arts), while for others – technological improvements (book printing, photography), etc. The final section of this Report presents the situation of these sectors relating them to the study data thus offering a wealth of possibilities to clarify public policies in order to develop adequate strategies for their development.

We have obtained information about imports and exports of the products in the core copyright industries – book publishing and printing and visual and graphic arts. The graph below shows that the share in exported goods and services in the first industry is between €5.45 million and €6.84 million for the period 2003-2005 while imports of goods and services grew constantly – in 2005 only it was 68 percent (without accounting for inflation). The negative balance in trading in this group of goods reached €21.27 million in 2005.¹

¹ The information on imports and exports is incomplete because it is confidential for 9 percent of the activities.

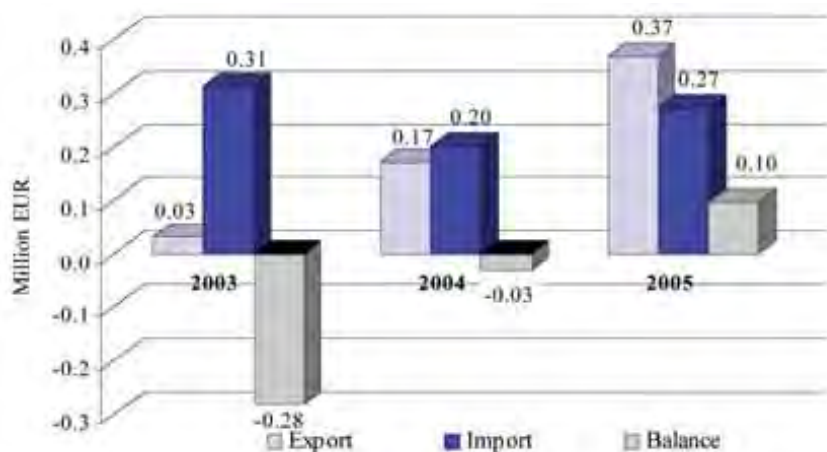


Graph 16. Imports, Exports and Trade Balance of the Economic Activities in the Sector of Book Publishing and Printing for the Period 2003 – 2005



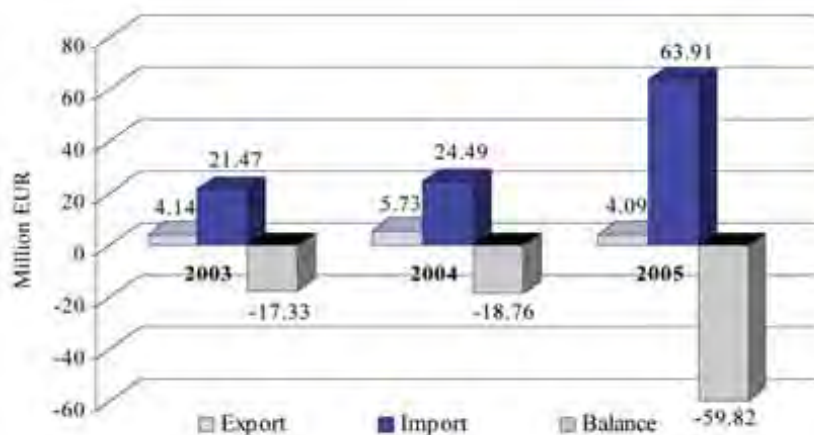
The import and export of goods in the visual and graphic arts sector registered a positive trade balance in the final year but the short period does not allow us to claim that the anticipated growth in exports is sustainable. Exports and imports here have low absolute values because the export of art objects in 2005 totaled only 369,000. The interviews conducted with representatives of this sector give us reason to claim that the real levels in this group are higher but it is difficult for the national statistics to include them.

Graph 17. Imports, Exports and Trade Balance of the Economic Activities in the Sector of Visual and Graphic Arts for the Period 2003 – 2005



Royalties are an economic feature of special importance to the copyright-based industries, covering rights to products of intellectual property purchased and sold abroad (copyright, licenses, patents, trade marks, etc.). The National Statistical Institute does not collect information about this and the data were obtained from the Bulgarian National Bank which summarizes the information about transfers made from and to places abroad for the reasons indicated.

Graph 18. Remuneration and Licenses Received and Paid Abroad for Copyright and Other Products of Intellectual and Industrial Property for the Period 2003 – 2005

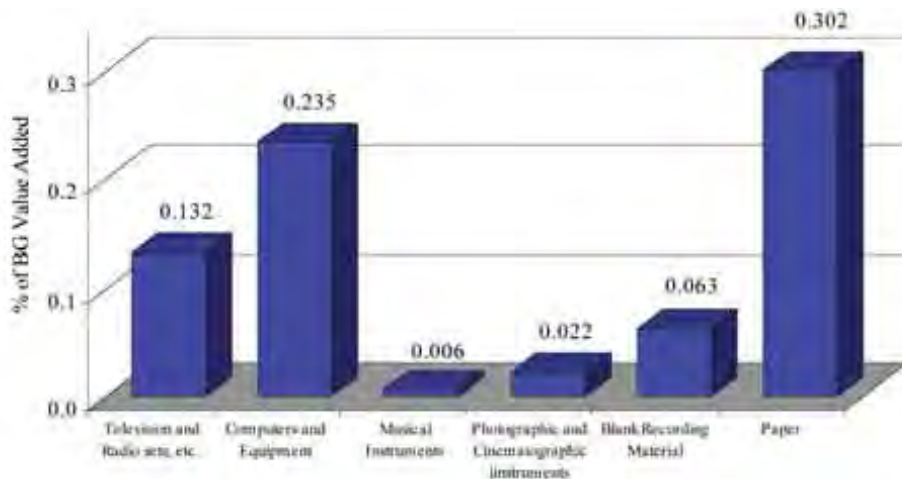


Payments on copyright and other licenses delineate Bulgaria's place in the international exchange of products of artistic property and neighboring rights. They show that the country is a net importer of products protected by copyright and intellectual property rights in general. The first success in the fight against piracy and the strengthening of legislation has brought about a significant increase in payments abroad – in 2003-2005 the increase was three-fold while the sale of rights and licenses in protected Bulgarian products remained at a constantly low level. The efforts of the authorities to protect intellectual property inside the country must be accompanied by support for the creation, promotion and enforcement of our intellectual property abroad.

4. Economic Contribution of the Interdependent Copyright Industries

In view of their share in the overall economic contribution of the copyright-based industries in 2005, the six interdependent industries rank second – 22.1 percent in value added, and in GDP the share increases to 24.6 percent after recalculation of the fifth undistributed group. In terms of employment, the group again ranks second with a share of 17 percent, (20.2 percent) after recalculation (see the section on the overall contribution of the copyright-based industries above).

Graph 19. Share of the Interdependent Copyright Industries as a Percentage of the GVA in 2005



Given the fact that we talk mainly about technologies, one of the explanations is that over the past 17 years, there has been a sharp drop in the production of technical devices related to the creation, dissemination and communication of the products of copyright-based industries. In 1994, for example, the export of computers and computer equipment fell 30 times in comparison to 1984 levels – from US\$1.5 billion to US\$50 million (*Wall Street Journal Central Europe* – Summer, 1994). As of 1989, 122,000 people worked in the Bulgarian electronics industry and it generated almost one-fourth of the value added.¹ The situation with the local production of radio and television equipment, telephones, radios, etc. was similar and the consumption of these is almost entirely covered by imports (see below). Hence, we must not be surprised by the fact that the aggregate share of the low-tech products such as paper and blank recording materials equals almost half of the value added in these groups.

Table 8. Economic Contribution of the Interdependent Copyright Industries

CI group	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
TV sets, Radios, VCRs, CD Players, DVD Players, etc	125 397	0.136	46 625	0.132	0.109	4 536	0.186
Computers and Equipment (including Photocopiers)	228 111	0.248	82 864	0.235	0.194	5 026	0.206
Musical Instruments	4 557	0.005	2 067	0.006	0.005	312	0.013
Photographic and Cinematographic Instruments	28 140	0.031	7 585	0.022	0.018	1 215	0.050
Blank Recording Material	63 684	0.069	22 168	0.063	0.052	255	0.010
Paper	480 520	0.522	106 231	0.302	0.248	6 491	0.267
Interdependent Industries	930 389	1.010	267 539	0.760	0.625	17 835	0.733
Bulgarian Economy	92 132 091	100	35 220 410	100	82,296	2 434 726	100

The above table shows that, unlike the core copyright industries where we have identified significant variations between the sectors in view of the different indicators, the leading industries are clear – by gross output, value added and employment the leader is the manufacture and sale of paper and print-related materials followed by computers and equipment (in 2005, the ratio of manufacture to sales was 1:7.35). The third most important is radio and television receivers and sound or video recording or reproducing apparatus and the ratio of manufacture to sales here is even greater – 1:11.16.

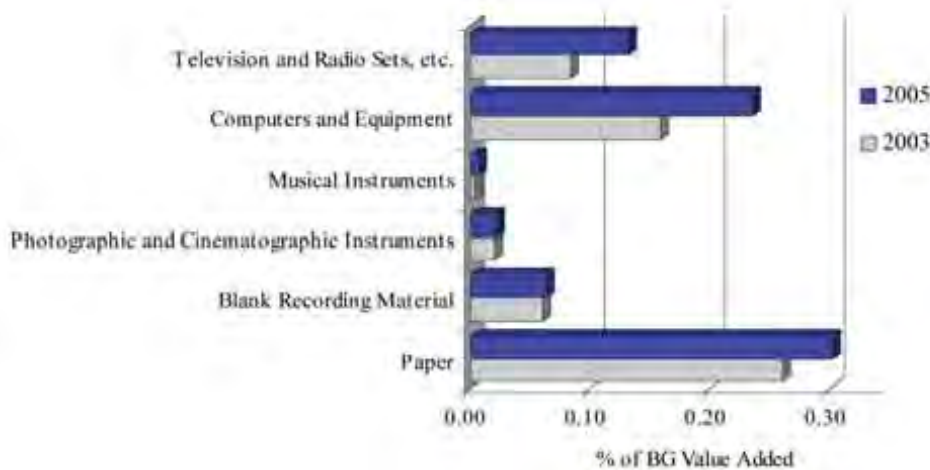
The study registers extremely low economic values for the manufacture of musical instruments.² This is partly due to a technical problem to the extent to which we are unable to include sales and leases of musical instruments at this stage – these activities are shown in the non-distributable fifth group. Hence, we can suppose that the real overall values for the industry are higher.

The dynamics of the interdependent copyright industries for the period 2003 – 2005 show greater growth rates in value added in the first three industries and these are higher for computer equipment, radio and television equipment and video and audio equipment. The growth in the other industries is minimal.

¹For more information see: Run, R. and Utt, R. (1990), *Bulgarian Economic Growth and Transition Project*, National Chamber Foundation, Washington.

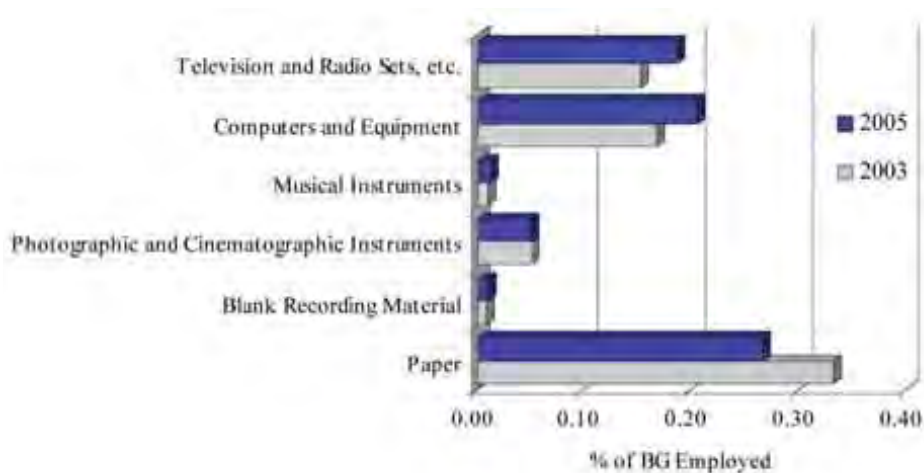
²The data are similar to those of the Latvian study – see *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*, WIPO, 2005, p. 280.

Graph 20. Dynamics of the Interdependent Copyright Industries in Terms of the Change in the Share of Employment for the Period 2003 – 2005



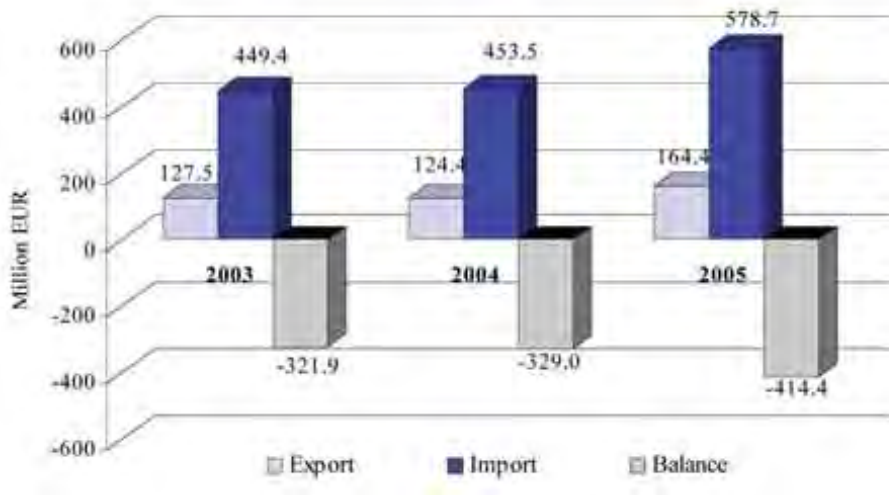
The study registers a reduction of 17 percent in employment in the paper industry for the period 2003 – 2005 which, given the 24 percent increase in the value added, can be explained through the investment in equipment and increased production. Employment grew the most (with shares between 26 and 33 percent) in the manufacture of blank recording materials, computer equipment and radio, television, sound and video equipment. The low volumes of manufacture and the low employment level in the manufacture of blank recording material (CDs and DVDs mostly) should be noted – in comparison to the recent past when the country used to be one of the major suppliers of these products within the former Council for Mutual Economic Assistance.

Graph 21. Dynamics of the Interdependent Copyright Industries in Terms of the Change in the Share of Employment for the Period 2003 – 2005

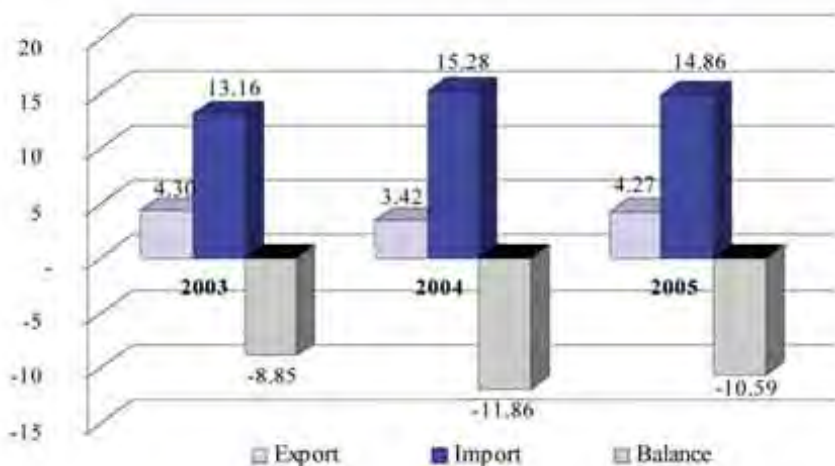


We have obtained information on imports and exports in three of the interdependent industries studied – radio, television and other audio-visual apparatus, photographic and cinematographic instruments and musical instruments. The information in every group is somewhat incomplete due to the confidential nature of some of it and this is most significant for musical instruments. The study did not manage to obtain information on the import and export of computers and equipment which is the second leading industry in the group but the data on the import and export of radios and television sets, tape recorders, CDs, DVDs and other sound and visual recording and reproducing equipment indicate that the major part of the value added is realized by imports. Throughout the study period, the ratio of imports to exports remained at about 1:4 and the negative trade balance exceeded €400 million in 2005, although in the conditions of significantly lower absolute values, the same ratio between imports and exports is valid for motion picture and photographic equipment where the negative trade balance exceeded €10 million in 2005.

Graph 22. Imports, Exports and Trade Balance for the Economic Activities in the Sector of Radio and Television Equipment and other Audio-Visual Equipment for the Period 2003-2005
(the information on around 6 percent of the activities is confidential)



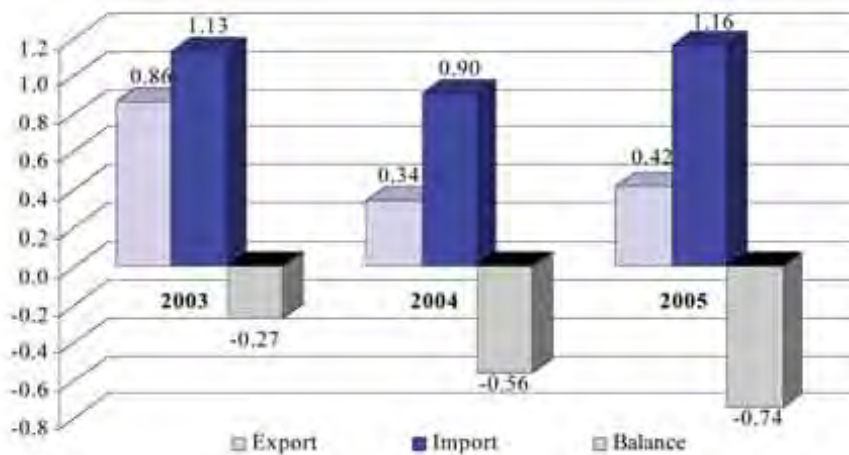
Graph 23. Imports, Exports and Trade Balances for the Economic Activities in the Sector of Motion Picture and Photographic Apparatus and Equipment for the Period 2003 – 2005
(the information on around 8 percent of the activities is confidential)



Despite the confidential nature of some of the information, the one regarding imports and exports supports the conclusion reached above on the relatively low economic contribution of the manufacture and sale of musical instruments. The negative trade balance grew slowly during the period studied. Imports varied at around €1 million while the fall in exports almost doubled.

Graph 24. Imports, Exports and Trade Balance for the Economic Activities in the Sector of Musical Instruments for the Period 2003 – 2005

(the information on around 22 percent of the activities is confidential)



The results obtained in the interdependent copyright industries paint a clear picture of the deindustrialization of the sector. Fifteen years ago, most of the industries were among the leaders and were clearly export-oriented. Today, with the exception of paper production, the manufacture and export of equipment and consumables servicing the core copyright industries are at a very low level and internal consumption is met primarily by imports. Similar to other cases of deindustrialization throughout the world, the situation here was related to the destruction of industrial assets, emigration of the most qualified researchers, engineers and technical staff or their move to other activities such as trading in and servicing of these products. As a result of the efforts of entrepreneurs from the former state-owned industries, small producers in specific niche industries such as manufacture of blank recording materials (CDs, DVDs, etc.) and other consumables, manufacture of optical and electronic components, etc. continue to operate. In such conditions, public policies should encourage foreign investment in these sectors; identify and support innovative local entrepreneurs and strategic investments in areas and niches of significant growth potential where the country has specific competitive advantages (research, industrial and cultural traditions, access to markets, attractive production factors, etc.).¹

¹ An example is the manufacture of holographic protective and advertising materials developed in *DEMAX Print OOD* which is unique in South Eastern Europe (see http://www.demax-bg.com/holograms_bg.htm).



5. The Economic Contribution of the Partial Copyright Industries

The partial industries form the smallest group – 6.4 percent of all those employed in copyright-based industries work in them although they make up a mere 3.31 percent of the contribution of the copyright-based industries to the overall value added and gross output. In view of the value added their share amounts to a fraction of 1 percent.

Graph 25. Contribution of the Partial Copyright Industries to the Main Economic Indicators in 2005

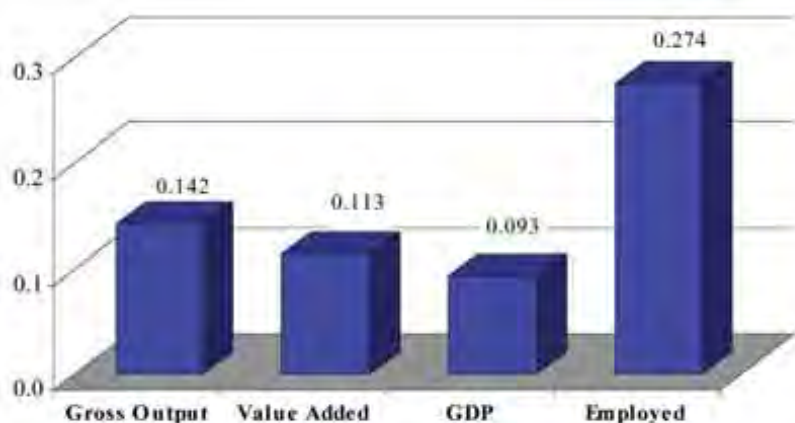


Table 9. Economic Contribution of the Partial Copyright Industries in 2005

CI group	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
Apparel, Textiles and Footwear	12 711	0.014	4 892	0.014	0.011	1 245	0.051
Jewelry and Coins	2 966	0.003	1 192	0.003	0.003	213	0.009
Other Crafts	15 554	0.017	4 425	0.013	0.010	799	0.033
Furnitures	31 157	0.034	7 974	0.023	0.019	1 554	0.064
Household Goods, China and Glass	3 656	0.004	1 044	0.003	0.002	113	0.005
Wall Coverings and Carpets	2 295	0.002	622	0.002	0.001	80	0.003
Toys and Games	10 723	0.012	3 862	0.011	0.009	869	0.036
Architecture, Engineering, Surveying	50 855	0.055	15 348	0.044	0.036	1 607	0.066
Museums	1 330	0.001	528	0.001	0.001	201	0.008
Partial Copyright Industries	131 247	0.142	39 888	0.113	0.093	6 682	0.274
Bulgarian Economy	92 132 091	100	35 220 410	100	82,296	2 434 726	100

This is the group of industries where the information is weighted with a copyright factor which is specific for all (see the methodological section above, Table 4); in some of them, for example household goods, china and glass and apparel, textiles and footwear, the copyright factor is very low – 0.5 percent and 0.6 percent respectively. As for absolute values, textiles is the leading industry in the economy which provides almost one-third of the country's exports. Of the industries with a higher copyright factor, only architecture

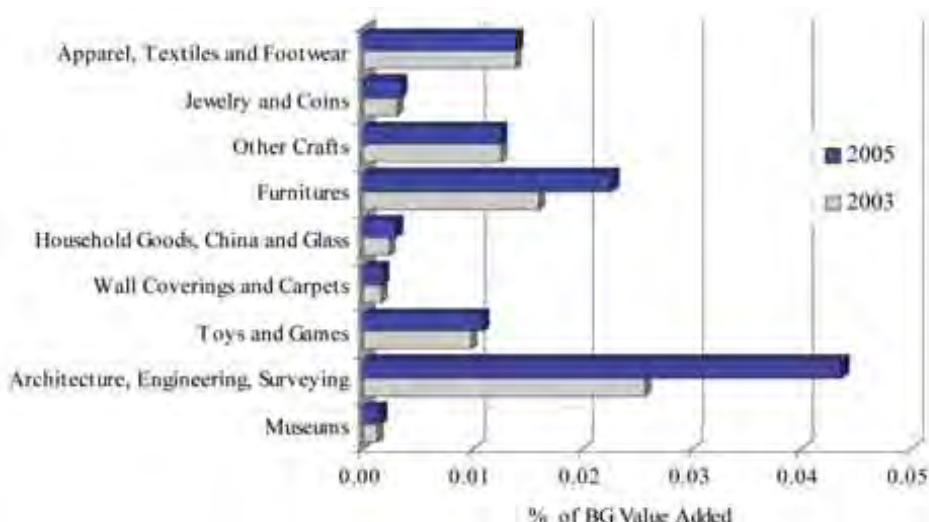
and related activities have higher absolute values, making it the leader in absolute terms.¹ That is why significantly lower absolute values are typical of the whole group – the leading group has a gross output of about BGN51 million with a value added of a little over BGN15 million and 1,607 employees.

In view of its gross output, value added and employment, furniture comes second. In addition to the relatively high copyright factor of 5 percent: this is also an indicator of the higher value added invested in the sector.² The largest sector by absolute values, apparel, textiles and footwear comes third in both gross value added and employment after weighting. There is a relatively high value added (in comparison to employment) in jewelry and crafts as well as in toys and games.

Unlike the first two groups of copyright-based industries where, depending on their economic contribution, there are several clearly-distinguishable leaders at a significant distance from the others, architecture is the only leading industry. The three industries following it at a significant distance make similar economic contributions (furniture, apparel, textiles and footwear and crafts) followed very closely by another industry with similar indicators (toys and games).

The dynamics of the partial copyright industries by value added and employment reveal another original profile (similar to the profile by gross output). The clearly-distinguishable opposing groups of the leaders and the industries with a low growth rate can be seen – for the three-year period, the growth in value added in the sector of architecture (with inflation taken into account) is 81 percent while it is 50 percent in furniture. Museums and household goods occupy a place at the center with an increase of a little over 30 percent while for all others the growth rate is below 20 percent (it is below 8 percent in crafts and textiles and footwear). The growth in value added in architecture is realized through a smaller increase in employment – third place with an increase of 16 percent after crafts and furniture.

Graph 26. Dynamics of the Partial Copyright Industries in Terms of the Change in the Share of the Value Added for the Period 2003 – 2005

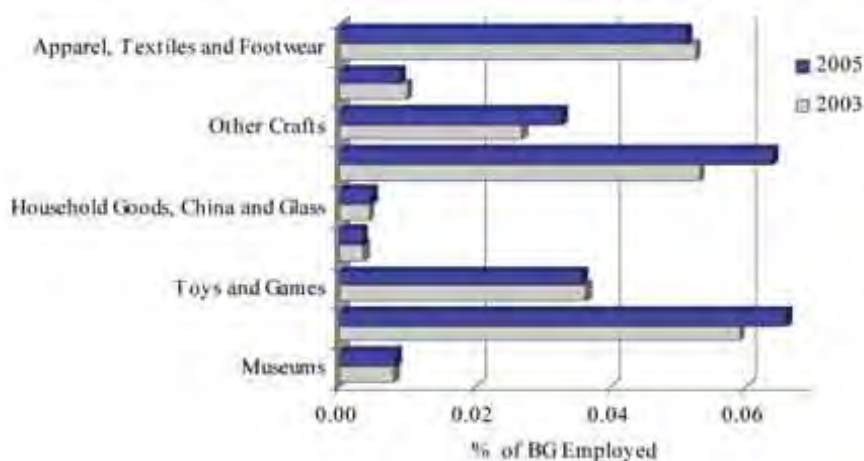


¹ As mentioned in *Appendix 11*, this is a very conservative evaluation because we have reason to believe that the real volumes of gross output and value added in visual and graphic arts and in some other sectors are significantly higher.

² In *Appendix 11* we have noted the existence of a large number of furniture producers producing original items, some of which are unique or in limited series, i.e. with a high level of artistic input.

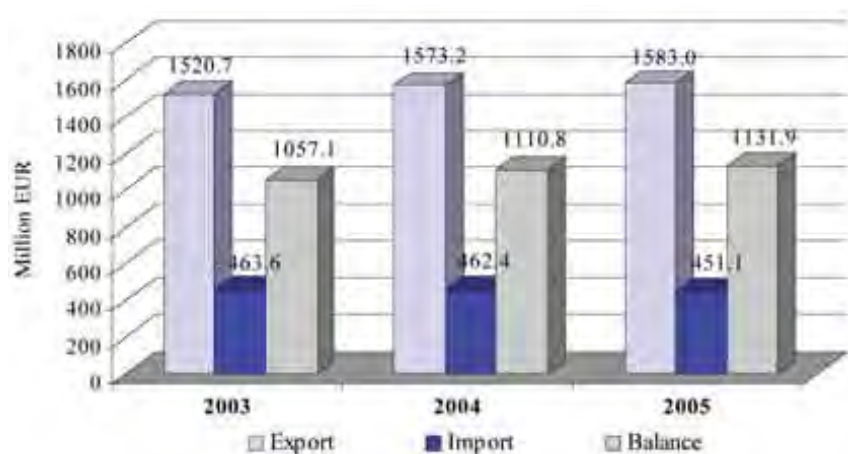


Graph 27. Dynamics of the Partial Copyright Industries in Terms of the Change in the Share of Employment for the Period 2003 – 2005



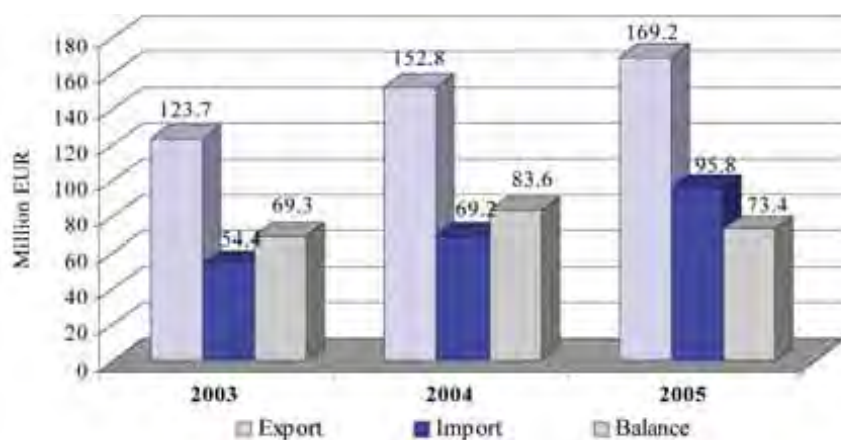
In terms of imports and exports, the partial copyright industries have the highest positive trade balance with high absolute values. The undisputed leader is apparel, textiles and footwear with a positive balance of 1 billion and €132 million. The interviews conducted with entrepreneurs in the sector and observations from experts show that, in apparel and footwear in the past, there has been a clear trend for enterprises to hire professional designers or to buy in the services of such while companies ever more often protect their original products and register trade marks. They explain this by both the growing competition and the desire to occupy market segments with a higher value added of the goods sold (so-called boutique textiles, etc.).

Graph 28. Imports, Exports and Trade Balance in Apparel, Textiles and Footwear for 2003 – 2005



Furniture comes next with increasing volumes of imports and exports with a stable positive balance between BGN70 million and BGN80 million. Here we can see the effect of using the copyright weights because, as we have already seen above, the tenfold higher weight for furniture compared to textiles and footwear compensates for the lower absolute values and results in furniture being ahead in terms of its contribution to the gross output and value added related to the use of copyright and neighboring rights.

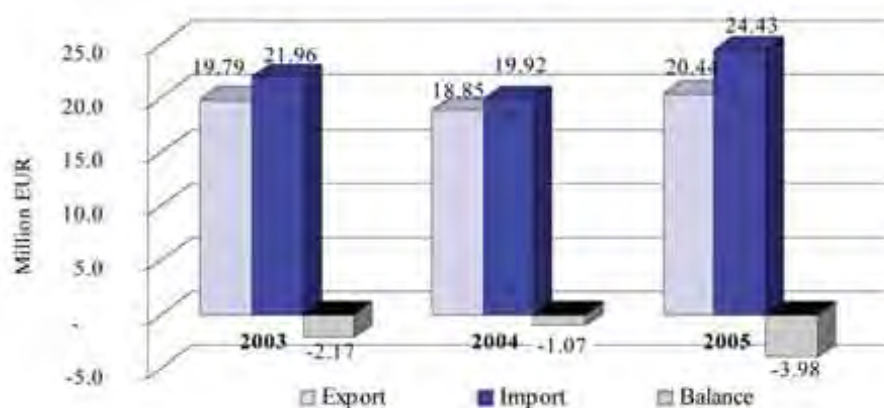
Graph 29. Imports, Exports and Trade Balance in Furniture for 2003 – 2005



In toys and games, imports and exports remained at about BGN20 million during the monitoring period with slightly higher imports. As the group discussions conducted have made clear, there is a significant informal sector and serious infringements on copyright in this industry (computer games). This has made the Bulgarian producers of games, some of which are already established, turn their attention primarily to the external market which can explain the relatively high levels of exports. In addition, it can be supposed that internal consumption of imported games and toys is higher than that shown in the official statistics.

Graph 30. Imports, Exports and Trade Balance in the Industry of Toys and Games for 2003 – 2005

(the information on around 3 percent of the codes is confidential)



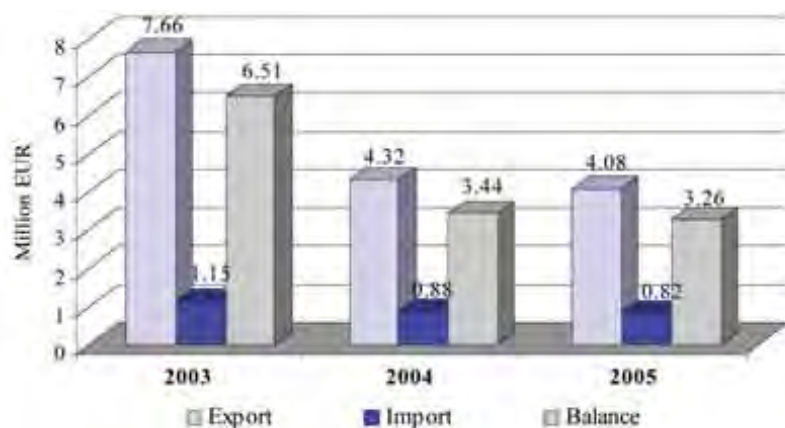
Although it is incomplete, the information on imports and exports of jewelry also shows a positive, albeit decreasing level in the trade balance in the past two years, given the relatively low volumes of several million dollars. The expert opinions obtained prompt us to think that significant contraband imports of cheap jewelry¹ have had a negative impact on the sector and caused Bulgarian producers to focus on the international market where they meet strong competition.

¹ "The inspectors at the Malko Turnovo border checkpoint have seized 2.325kg of gold jewelry amounting to more than BGN70,000, the Customs Agency press office has announced. A statement of violation was drawn up against a Turkish national with a Bulgarian permanent residence card. The customs officers in Malko Turnovo and Lessovo have prevented a total of five attempts at smuggling in the past week alone, according to the Bulgarian Telegraph Agency. 16.727kg of gold and 692g of silver jewelry have been impounded and this will be confiscated for the benefit of the state after the administrative and penal procedures." (Announcement of the Bulgarian National Radio, 22 April 2007).



Graph 31. Imports, Exports and Trade Balance in the Jewelry Sector for 2003 – 2005

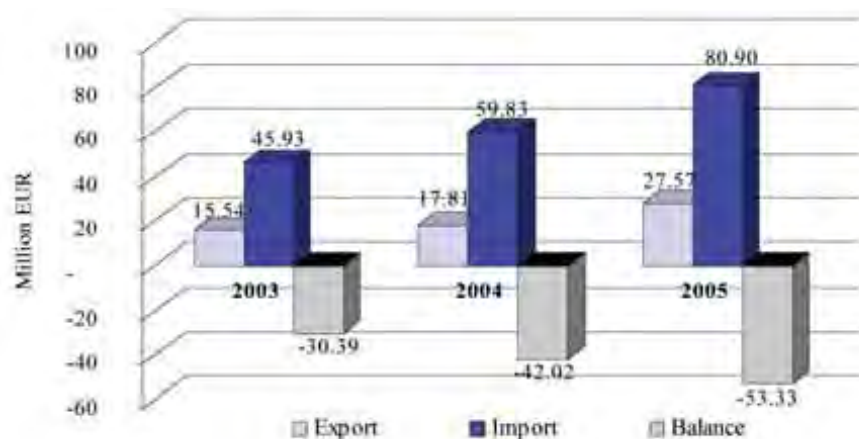
(the information is on around 40 percent of the activities; the rest is either confidential or missing)



It is in the china and glass industry and the manufacture of household goods that we can see the familiar tendency shown in the interdependent industries – a high prevalence of imports over exports and a growing negative trade balance. What is positive in this sector is the slightly faster increase in exports in comparison to imports.

Graph 32. Imports, Exports and Trade Balance in Household Goods, China and Glass for 2003-2005

(the information on around 2 percent of the codes is confidential)



Alongside the specific measures supporting the fast growing leaders in the group (architecture and furniture), the relative homogeneity of the partial copyright industries in their economic indicators favors the development of common support strategies. Moreover, this is the group with the highest positive foreign trade balance. A possible strategy for the partial copyright industries could include efforts to improve general conditions for realization of the copyright element, especially now we have demonstrated that a number of entrepreneurs and managers in the sector already understand its importance.

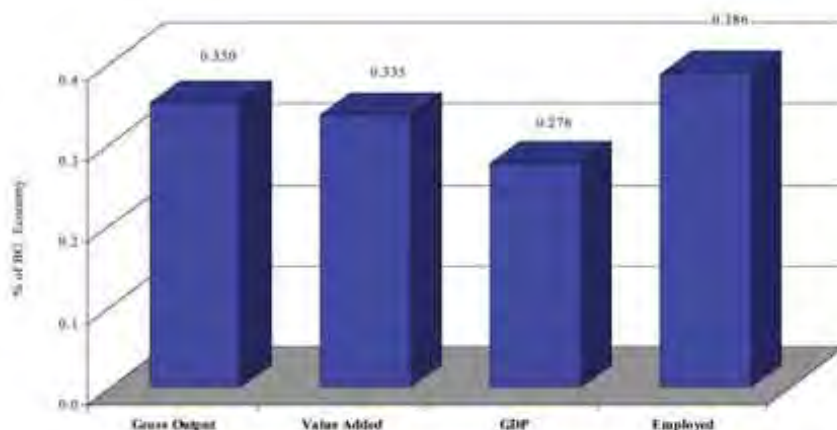
A critical point concerning most partial industries and several core industries at the same time (visual and graphic arts, photography, etc.) is the rudimentary state of the design profession. Preliminary research and a study conducted in the city of Plovdiv in 2005 show that the profession has not yet established itself as an autonomous copyright industry. At present it exists in the form of a number of different activities associated

with a specific modifier – fashion design, media design, web/graphic design, interior design, furniture design, etc. Some of these activities – such as web and graphic design – are an inseparable part of the software sector while media design is usually part of book publishing and printing and/or advertising. These designers are also involved in other activities. Only fashion design is relatively established. The spread of the sector and the lack of an independent institutional and organizational profile of design activities limit possibilities for its representatives to impose their copyrights. It is also an obstacle to the pursuit of long-term strategies for improvement of the artistic level of the products and services created in the partial industries, etc. and the professional and artistic development of its representatives. This should be the aim of the public policies in the sector supporting the real practitioners and creating legal, educational and organizational prerequisites for their establishment and development. Moreover, there is real potential in the field in Bulgaria, including training courses at the Design School with Rousse Technical University, certain faculties in the Academies of Arts, the New Bulgarian University and others. We also need to add design as a separate economic activity in the system of national statistics as it is currently dispersed throughout several unrelated codes.

6. The Economic Contribution of the Non-Dedicated Support Industries

Non-dedicated support industries form the third group in terms of their relative significance to copyright and neighboring rights (fourth only in terms of the number of employees after non-distributable industries). They account for the share that wholesale and retail, transportation and communication contribute to the creation, manufacture and dissemination of products of copyright-based industries.

Graph 33. Contribution of the Non-Dedicated Support Industries to the 2005 Key Economic Indicators



The copyright factor applied to their economic values for the year in question is reached as a ratio of the value added generated in the first three copyright groups (we have added a fourth undistributed group to them in the Bulgarian study) to the gross value added for the country (from which we have subtracted the contribution of the non-dedicated support industries themselves¹). Our study shows 2.8 percent for 2005 and 2.1 percent for 2003.²

¹ Some researchers refer to them as distribution industries. i.e., whose task is the distribution of economic goods (trade, transportation and communications). For more information on the issue and calculation of the copyright factor, see the reports on the Singapore study in 2004 – *National Studies on Assessing the Economic Contributions of Copyright-Based Industries*, WIPO, 2006, p. 87.

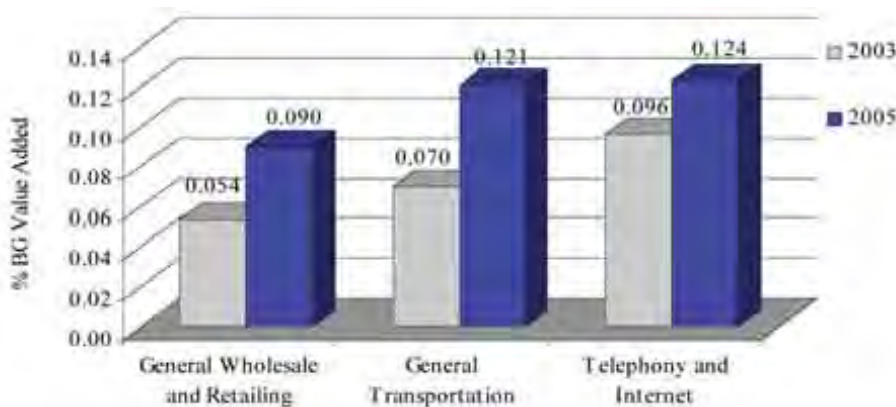
² A week before the report was sent to press the NSI reconsidered the macroeconomic data on the country for the period 2003–2006. The changes concern primarily the gross public product and GVA. The team has managed to take into account the changes despite the need to recalculate the data.

The economic contribution of this group is about 0.34 percent of the GVA and 0.39 percent of employment in the Bulgarian economy. Transportation and communications have the greatest importance for the value added and employment for wholesale and retail.

Table 10. Economic Contribution of the Non-Dedicated Support Industries in 2005

CI group	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
General Wholesale and Retailing	75 999	0.082	31 645	0.090	0.074	5 281	0.217
General Transportation	165 059	0.179	42 712	0.121	0.100	3 788	0.156
Telephony and Internet	81 080	0.088	43 616	0.124	0.102	340	0.014
Non-dedicated Support Industries	322 137	0.350	117 973	0.335	0.276	9 409	0.386
Bulgarian Economy	92 132 091	100	35 220 410	100	82.296	2 434 726	100

Graph 34. Dynamics of the Non-Dedicated Support Industries in Terms of the Increase in the Share of the Value Added for the Period 2003 – 2005



The exchange rates of the value added in transportation and wholesale and retail are relatively high – 86 and 79 respectively (with inflation taken into account). The three sectors increased the number of people employed, this being highest in communications (67). The growth in these branches reflects the overall development of the economy and also the increase in the relative share of the copyright-based industries. The latter can be seen most clearly in the difference between the copyright factors in 2003 and 2005 where there is an increase of 33 percent.

7. The Economic Contribution of the Industries in the Non-Distributable Group

As we have already mentioned in the methodology, the main reason for establishing this group in the Bulgarian study is the lack of national statistics which bring important activities from the core, interdependent and partial industries under common codes, thereby including them with other activities unrelated to copyright-based industries. We have managed to distribute the greater part of these mixed codes in various ratios among the copyright-based industries with additional studies and analyses of different sources as explained in *Appendix 4*. This has not been possible for the following three codes which make up the current fifth group:¹

- 1) **Wholesale trading in other household goods.** This code encompasses activities with a significant economic contribution of BGN103 million in 2005 – wholesale trading in print editions, furniture, carpets, musical instruments, leather goods, basketry, wood and cork items which fall respectively within the core, interdependent and partial industries. It also includes wholesale trading in goods outside the copyright-based industries – sports goods, stationery, flowers, pets, watches. Their value on the basis of the sales in the indicated groups (*Appendix 7*) was evaluated at about 25 percent and was subtracted from the overall values. Due to the lack of a sufficiently-reliable basis for distribution of the other 75 percent among the three groups of copyright-based industries, the data were included in this new combined group of copyright-based industries. The presence of activities from the partial industries made it necessary to weight the data and the overall copyright factor was set at 0.55 on the basis of the statistical information about the volume of sales, interviews with managers and other data.
- 2) **Retail in specialized shops that has not been classified anywhere else.** Creating value added amounting to more than BGN176 million in 2005. It includes activities from the core and interdependent industries (souvenirs, arts and crafts, church plates, office and commercial furniture, office equipment, computers and standard software, photographic appliances, optical and high-resolution equipment, postage stamps and coins), activities from the partial industries with a copyright factor (toys and games, watches and jewelry, wallpaper and floor coverings, carpets and rugs) and activities which are not related to any copyright-based industries (telecommunications equipment, optical goods, sports and leisure goods, sport and hunting guns, flowers and seeds, heating materials, etc.). The share of the latter unrelated goods was assessed to be 35 percent while the remaining share was then weighted with a factor of 0.55 based on the arguments set out in *Appendix 4*.
- 3) **Rental of audio and video recordings, books, audio and video equipment, musical instruments, jewelry, furniture, textiles and ceramics, sports equipment, domestic machines, flowers and plants.** Here, only the last three activities are unrelated to copyright and neighboring rights. When a conservative approach was applied, the share of these non-dedicated activities was assessed to be 20 percent. The remaining part of the values under this code were weighted with the same factor of 0.55 based on the combination of a significant share of activities belonging to the core and interdependent copyright industries (lease of books, audio and video recordings, audio and video equipment, musical instruments) and activities from the partial copyright industries (jewelry, furniture, household appliances, textiles and ceramics).

¹ For detailed arguments in relation to the establishment of the three codes in a separate group and the weighting of the data, see also *Appendix 6*.

We therefore refer here to important activities related to the dissemination of copyright products and equipment for their creation which, according to the WIPO methodology, fall within the group of the core, interdependent and partial industries. They are comparable to the other groups (excluding the core industries) and, due to the conservative approach adopted, it is likely that the share of these activities is even greater!

Graph 35. Contribution of the Industries from the Non-Distributable Group to the Main Economic Indicators in 2005

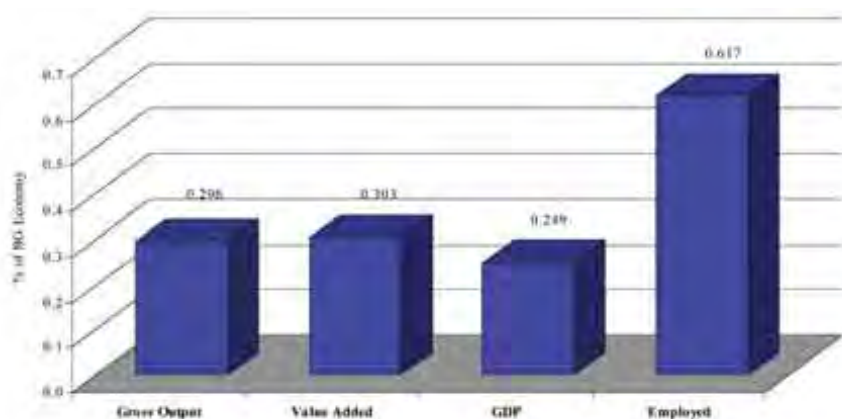
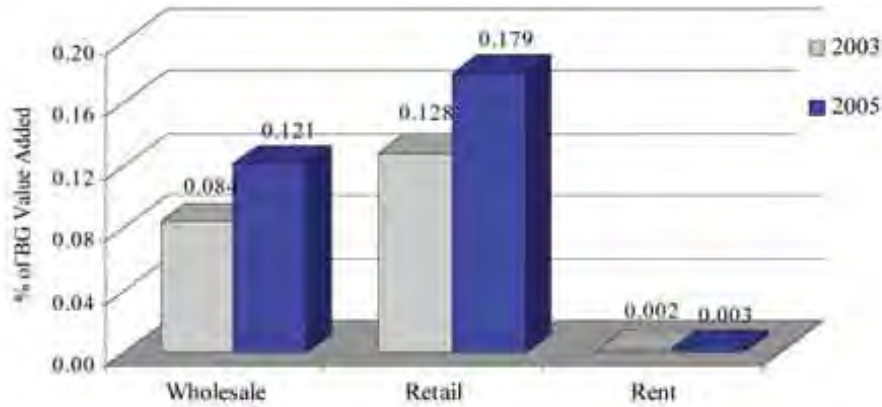


Table 11. Economic Contribution of the Industries from the Non-Distributable Group, 2005

CI group	Gross output		Value added			Employment	
	Thousands BGN	%	Thousands BGN	% of VA	% of GDP	Number	%
Wholesale	137 667	0.149	42 499	0.121	0.099	3 997	0.164
Retail	131 112	0.142	62 913	0.179	0.147	10 599	0.435
Rent	3 990	0.004	1 146	0.003	0.003	431	0.018
Non-attributable Group	272 769	0.296	106 558	0.303	0.249	15 027	0.617
Bulgarian Economy	92 132 091	100	35 220 410	100	82.296	2 434 726	100

The dynamics in the group are impressive. The growth in wholesale trading is more than 50 percent; in retailing it is close to this value; and in leasing, over 70 percent (but with a low volume in 2003). Given these figures, we can understand the significant increase in the share of these industries in the gross value added.

Graph 36. Dynamics of the Industries from the Non-Distributable Group in Terms of the Growth in the Value Added for the Period 2003 – 2005



The measures proposed for improvement of the national statistics would in the future allow separate accounting for the data on the copyright-based industries from this group and include them in the respective groups of industries pursuant to the WIPO methodology. The separation of trading and leasing of products of the copyright-based industries under independent codes would also make it possible to measure more effectively and reliably the efforts to fight piracy and the compliance with copyright to the extent to which it is these activities (including through electronic trading) where change in the volumes of traded goods and services would first appear.

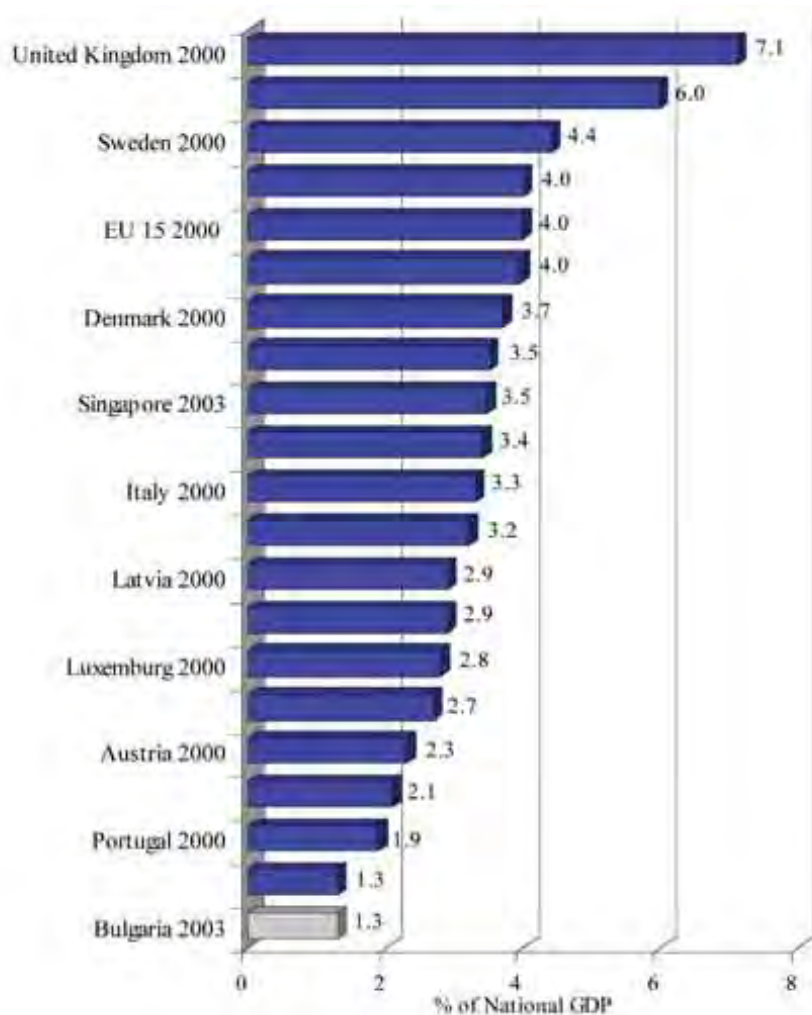
8. International Comparisons

In view of the share of the core copyright industries in GDP, Bulgaria, together with Greece, ranks at the bottom (after Portugal) among the countries which have conducted studies using this methodology. The comparison uses the recomputed values of the first three groups of copyright-based industries after the distribution of the values for the fifth group of mixed codes.

The interpretation of the data must take into account the lack of current comparative information, which has made it necessary to use the data for the year 2000 for most countries (the US – 2002, Hungary and Singapore – 2003). The data on Bulgaria in 2003 have been used but this does not reflect the significant growth in copyright-based industries in the past three years. Yet, what is valuable is the similarity in determining the core copyright industries and in collecting information about them to the extent to which all research teams have taken into account the recommendations in the WIPO methodology.



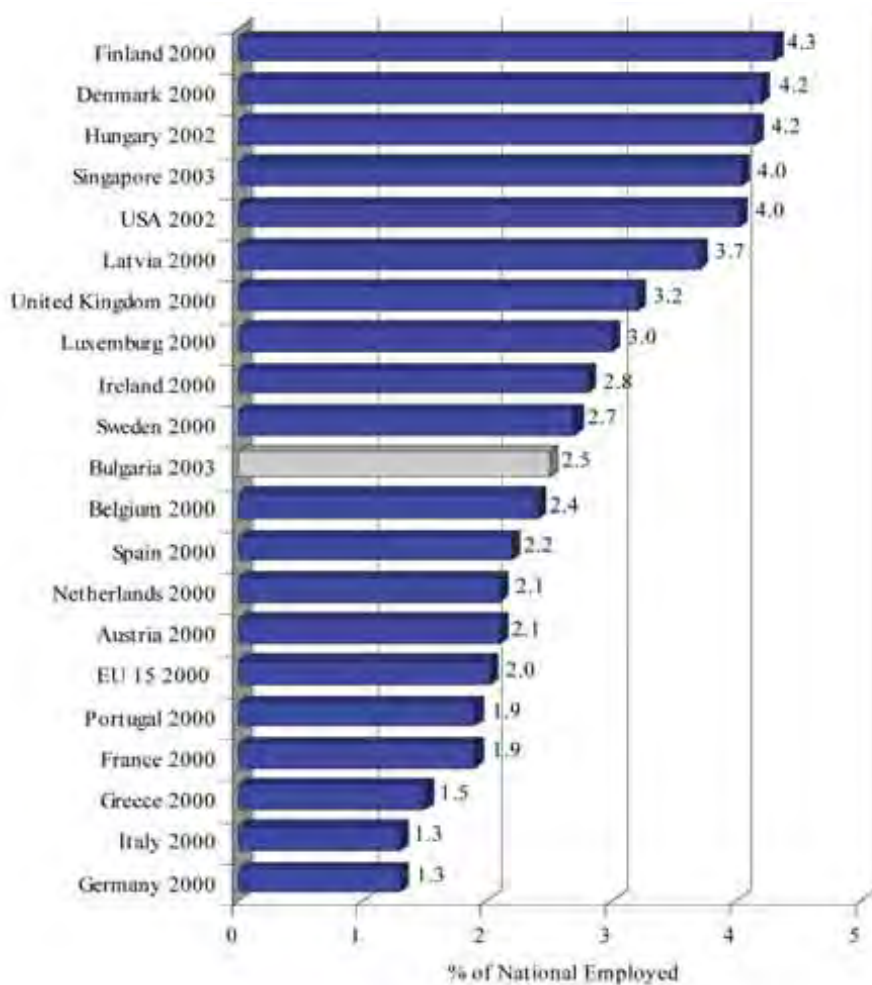
Graph 37. Share of the Core Copyright Industries in GDP, 2000 – 2003



Sources: Robert G. Picard, Timo E. Toivonen, Mikko Grönlund – *The Contribution of Copyright and Related Rights to the European Economy Based on Data from the Year 2000, Final Report, 20 October 2003*; *The Economic Contribution of Copyright-Based Industries in Singapore: An Update* http://www.ipacademy.edu.sg/site/ipa_cws/resource/executive%20summaries/Exec_Sum_Economic_Upd.pdf; Krisztina Penyigey, Peter Munkacsi – *The Economic Contribution of Copyright-Based Industries in Hungary, The 2005 Report*. Robert G. Picard, Timo E. Toivonen: *The Economic Contribution of Copyright-Based Industries in Latvia, The 2000 Report*. Stephen E. Siwek – *The Economic Contribution of Copyright-Based Industries in the US, The 2004 Report*.

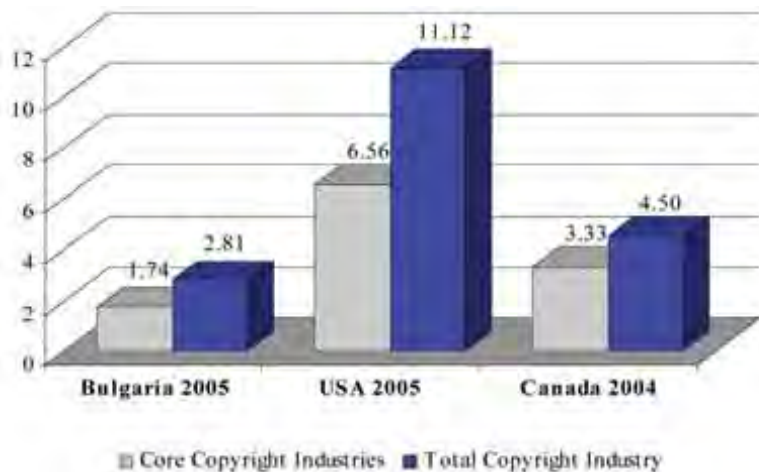
Bulgaria occupies a much higher place in the rankings in terms of employment in the core copyright industries with a value above the average in the 15 EU Member States.

Graph 38. Share of Employment in the Core Copyright Industries, 2000 – 2003



In the course of the study, we managed to obtain more recent data on the US and Canada which allow us to use the information about 2005 as a comparison:

Graph 39. Share of the Core Copyright Industries in GDP, 2004 – 2005



Source: Stephen E. Siwek – *Copyright Industries in the U.S. Economy*, The 2006 Report; CONNECTUS Consulting Inc. – *The Economic Impact of Canadian Copyright Industries - Sectoral Analysis*, Final Report, 31 March 2006.

The share of the copyright-based industries in the Bulgarian GDP is more than four times lower than that for the US and almost twice as low as that for Canada. The recalculated share of the core copyright industries in Bulgaria in GDP reaches 1.74 percent – more than three times lower than that for the US and almost twice as low as that for Canada.

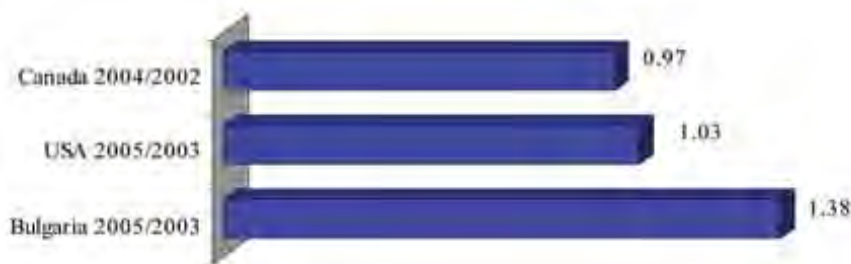
The number of people employed in the core industries and as a total for all copyright-based industries is about twice as low as that for the US. It is comparable to that of Canada, and, with the recalculation for the fifth group, the share of the core industries in Bulgaria is 2.72 percent.

Graph 40. Employment in the Core Copyright Industries, 2004 – 2005



For the period 2003–2005, the growth rate of core copyright industries in Bulgaria, computed as a ratio between the share of value added in GDP over the two years was 38 percent - significantly higher than in the US and Canada:

Graph 41. Growth Rate of the Core Copyright Industries from GDP, 2005 – 2003



9. Trends in the Development of some of the Core Copyright Industries

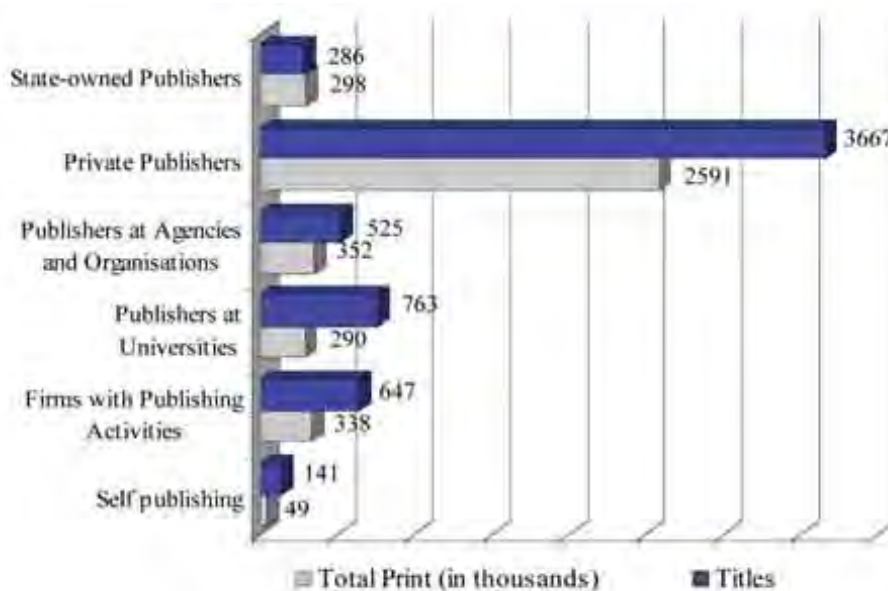
This section aims at presenting a general picture of the situation and the development of the core copyright industries on the basis of statistical information and analytical studies from the past several years.

Books and the Book Market

Bulgarian book publishing started developing commercially immediately after the political changes at the beginning of the 1990s. It was the first sector in the field of culture which was privatized gradually. In the early years after 1989, new companies targeting publishing activities appeared constantly (prompted most of all by the low initial investments and the fast return on the funds invested due to a hunger for books). The high number of registered publishing companies is a reflection of this development – 2,326 (2000 Reference Book of St. Cyril and Methodius National Library) and a publisher's code was given to 3,050 publishing houses from the creation of the national ISBN agency in 1991 up to 2003. Many of them, however, are not operating or produce only one or two editions. According to David Kingham, (*Bulgaria: A Book Sector in Difficulty*), "... Nobody knows for sure but there are an estimated 450 or so companies actively engaged in publishing of which about 40 or 50 are significant for their size and output."¹

While the sector encompassed 27 state-owned publishing houses and more than 100 others with different departments in 1988, today more than 85 percent of the books published in the country are the product of private publishers.

Graph 42. Distribution of the Publishing Houses in Terms of Ownership and their Production in 2005

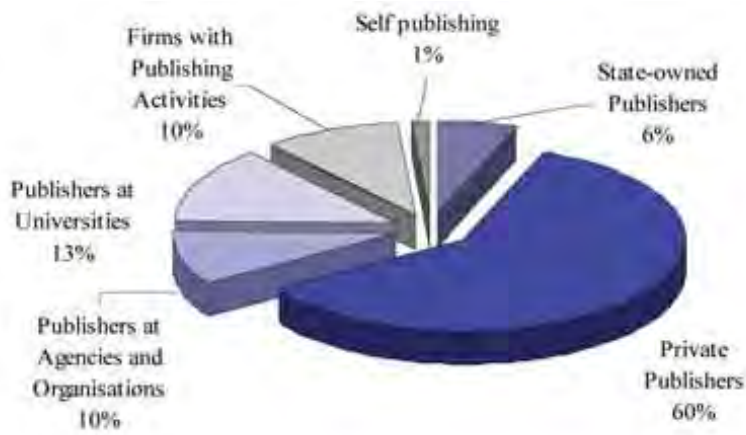


When seen against the total number of print quires published, the share is a little lower – about 70 percent.

¹ There are only 78 publishing companies in the register of cultural organizations with the Ministry of Culture (having taken part in competitions for financial support from the National Book Centre). The financial assistance provided to publishing houses under the Help the Book, Periodical Editions and other programs in the field of books by the National Book Centre with the Ministry of Culture amounted to BGN241,824 in 2003 and BGN301,438 in 2004.

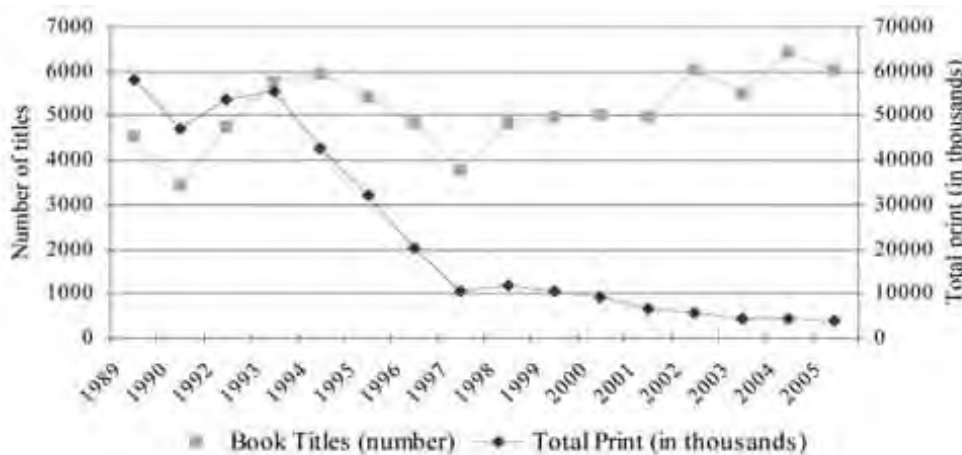


Graph 43. Distribution of the Publishing Houses in Terms of the Quires Printed in 2005



The number of publications dropped at the start of the 1990s, peaked in 1994 and then started falling again up to 2002. The total number of copies of books also declined abruptly and constantly – the total number of books and brochures published in 2005 was the lowest since 1989.

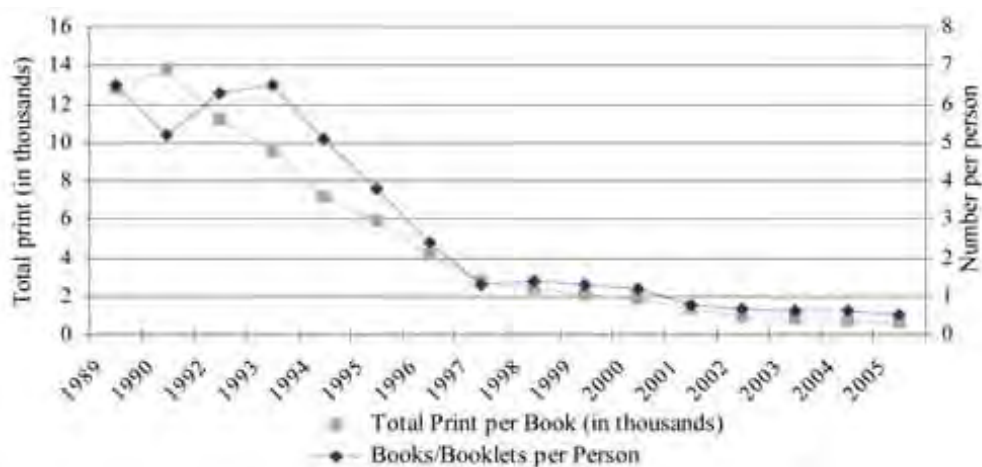
Graph 44. Dynamics of the Titles Published and Total Copies for the Period 1989 – 2005



It is obvious that the unrealistically high, economically inadequate and ideologically correct publications in the years of totalitarian rule cannot serve as a basis for comparison but the comparison with the period since 1992 shows a reduced market for book production. The total number of books published fell by 75.6 percent in 1999 in comparison with 1994. As the graph below indicates, average circulation today is 800 copies for Bulgarian literature and 1,200 copies for foreign literature and this average includes the higher circulation figures for textbooks, adult fiction (primarily in translation) and children’s books. The circulation of some editions does not exceed several hundred copies.¹

¹ There are several factors explaining the situation. 1) To meet the variety of interests, publishing companies try to expand the spectrum of topics the published works cover at the expense of circulation; 2) The purchasing power of the population; 3) The publishers are interested in the quick realization of a book with a view to ensuring fast returns; 4) Problems in the dissemination of books. Impact is also felt by the expanded possibilities to meet informational, educational and cultural needs with audio and visual and electronic means and technologies amounting to BGN241,824 in 2003 and BGN301,438 in 2004.

Graph 45. Dynamics of the Average Circulation and Books Published per Person for the Period 1989 – 2005



In the field of distribution, there are a number of unresolved problems the most important of which include:

- Limited number of book stores and storage space,
- Concentration of book trading in the large cities and relative isolation of the small population centers;
- Trading in the open which is still widespread;
- Short-term realization of book production.

There is no accurate information about the number of book distribution companies – according to different estimates, nationally there are about 130 private and 20 state-owned companies which are in the process of being privatized (data from 2000). There are also many retailers. The lack of a real book market has led to the opening of a significant number of book stores and book exchanges with publishing companies (about 60). Several electronic book stores have been opened as well. There is no professional organization of book traders and distributors which could represent their interests.

The general impression of book publishing since 1990 is that it has been developing successfully despite certain difficulties. Fewer publishing houses than before work in the sector and fewer books are published *per capita*; print runs are smaller but the number of titles published has been growing and production quality is much higher in several areas: selection of titles into thematic groups – the result of specialization among the publishers; improvement in the quality of translations and print layout. According to information from the Reading Bulgaria Commission, the volume of the Bulgarian book market is about BGN60 million a year.

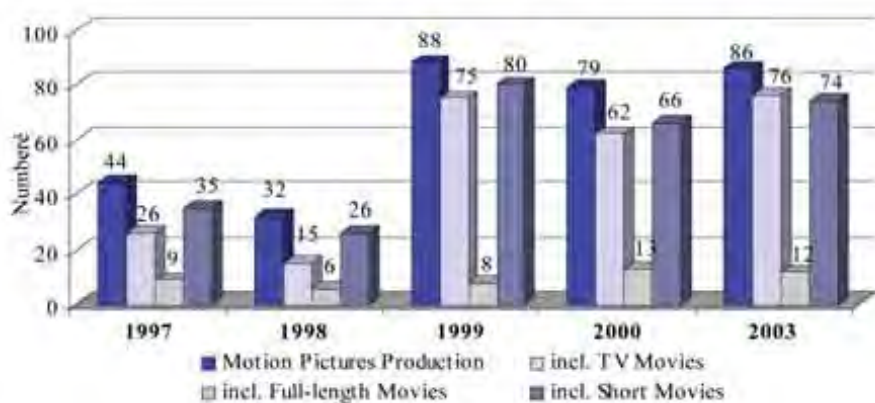
Motion Picture and Video Production

Bulgaria produced about 20 feature films funded by the state up to 1989. The advent of democracy saw the national motion picture industry come into existence in the new market conditions and this caused a radical rethink: the ideological bias was discarded and the doors to European funds and organizations were opened. There was also a sharp drop in state subsidies to the motion picture industry – barely two or three films a year were made in the mid-1990s. Commercial US movies are also widely shown.

In 1991, Bulgarian cinema was the first in the field of culture to restructure itself by applying market principles: all professionals became freelancers and, in 1992–1993, all enterprises were registered under the Commercial Act and have been self-sustaining ever since. The new legislative framework was introduced with the Copyright and Neighboring Rights Act (1993) and the Radio and Television Act (1995). The state

funds the production of features, documentary and animated films through the budget of the Ministry of Culture. The projects presented by independent producers compete before national committees and are subsidized only to a percentage of their real budget. A centre for the production of television films was set up with Bulgarian National Television (BNT) in 1998 and it applies the same funding principles and mechanisms as the National Film Centre. The BNT is the second source of funding for film production through the state budget. The film producers seek the rest of their funds from various sources – mostly specialized European funds. In October 1993, Bulgaria was accepted as a member of Euroimage, the European fund for supporting joint productions. Throughout its membership, Bulgaria has taken part in 32 European joint productions funded by Euroimage six of which are mainly Bulgarian projects. Euroimage provides annual financial support to four or five cinemas.

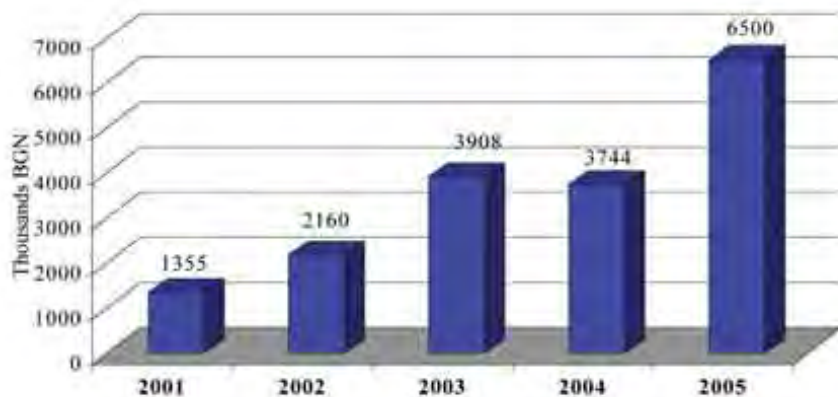
Graph 46. Dynamics of the Films Produced in the Period 1997 – 2003



At present, there are more than 40 specialized production companies with experience and international contacts working in the country. About 25 privately-owned studios were set up, offering technical services: audio recording, editing and computer animation and visual effects. Four or five international films are made in Bulgaria every year and the producers hire Bulgarian producers and technical teams. These include *East West* (winner of a 1999 Oscar, UGC – France), *Vercingétorix* (France), *Tuvalu* (Veit Helmer, Director, Germany), *The Profession of Arms* (Ermano Olmi, Director, Italy), *La Piovra* series and many others. These productions use the sets and technical facilities of Boyana National Film Centre which is the largest specialized film production base in the Balkans. Since the privatization of the film center in 2006, the owner, New Image, has pursued an active policy of attracting foreign film productions.

In the past few years, there has been a significant shake-up of the Bulgarian film market assisted to a large extent by the Film Industry Act – effective from the end of 2003. With it and through the National Film Centre Executive Agency, the State has committed itself to supporting financially the production, distribution and screening of Bulgarian films. Thanks to this law, there has been an increase in the number of Bulgarian films made since 2004. Financial support for film projects has significantly increased since its adoption.

Graph 47. State Subsidies for Motion Picture Art (National Film Centre Executive Agency) for the Period 2001 – 2005



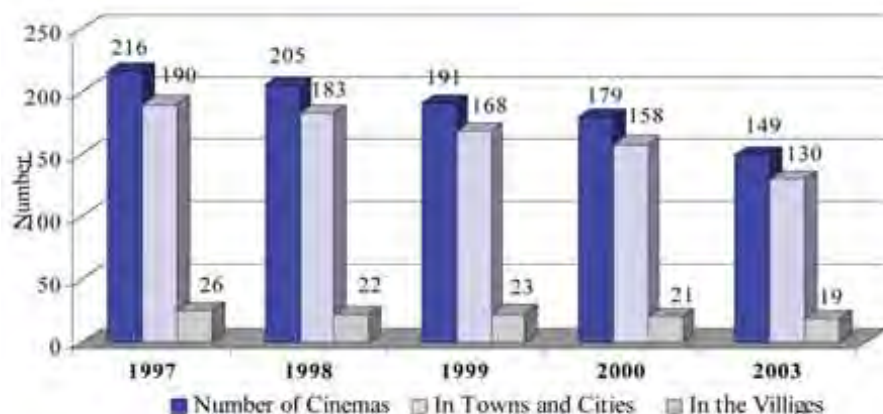
An average of four or five feature films a year for the period as well as five to seven documentaries and four to seven animated films (the number of animated films decreased from seven in 2001 and 2002 to two in 2005) have been funded. A state subsidy is provided for writing scripts for features, documentaries and animated films, for development of film projects, for production and distribution of short and full-length features, documentaries and animated films. State support is provided for the promotion of Bulgarian films at national and international film festivals. Only those registered with the Unified Public Register under Art. 19, para. 1 of the Film Industry Act may apply for such support: i.e., film producers, distributors and entities screening films. According to the Register, there were about 50 film distributors and 228 film producers as of December 31, 2006.

State funding for Bulgarian films is no less than 30 percent of the average budget for the respective film and no more than 80 percent of the budget of the project applying for funding. The National Cinema Council offers an annual funding quota for debut films which may not exceed 10 percent of the annual subsidy for film production.

The number of cinemas dropped drastically from about 1,500 in 1989 to 913 in 1992 and 120 in 1996. This resulted in the closure of cinemas in dozens of cities: the network of cinemas in villages was completely destroyed. According to NSI data, in 1999 more than half (46.6 percent) of cinemas nationally were already privatized. This trend was only overcome in 2000 when the first multiplex was opened in Sofia; the entertainment center Arena appeared in 2003 soon followed by another one and the largest entertainment center in the Balkans was opened in 2006 – it has 12 cinemas and a 3-D screen (Mall of Sofia). Even though the number of cinemas in 2003 was lower than that of 2001, the new multiplexes provide 200 screens.



Graph 48. Dynamics of the Number of Cinemas in the Period 1997 – 2003



State support for motion picture distribution is provided for Bulgarian films and films produced jointly with other European states in cinemas or for home viewing. Projects for the distribution of Bulgarian films are supported with up to 50 percent of the distribution budget. Projects for the distribution of European joint productions are supported with up to 25 percent of the funds expended on the distribution budget. These projects must apply to the Agency no earlier than one month from the date of the commercial premiere of the film.

State support for film screening is provided for Bulgarian films and films produced jointly with other European countries. The support for showing Bulgarian films and international joint productions amounts to up to 50 percent of the revenue from screenings of Bulgarian films and European joint productions over the six months preceding the date of application. Cinemas receive up to 25 percent of the revenue for screenings of European joint productions.

An important additional source of funding for film production is Bulgarian National Television – 10 percent of the state subsidy (BGN65.9 million in 2003, BGN66 million in 2004 and BGN67.8 million in 2005) is aimed at the production of Bulgarian feature films and documentaries. Thus, the National Television Art Center together with the BNT has turned the state-owned television in the past years into one of two state funds for promoting Bulgarian films. In 2005, the BNT produced 15 feature films, i.e., three times more than in 2004.

Radio and Television

Television

There are 203 TV channels in Bulgaria including seven terrestrial and 196 cable and satellite channels. There are three channels with country-wide broadcast licenses, i.e., Kanal 1, bTV and Nova TV. The other four terrestrial channels cover the four regions of Bulgarian National TV (BNT), broadcast respectively from Varna, Rousse, Plovdiv and Blagoevgrad.

There are telecommunication operators in Bulgaria active in TV broadcasting through the provisions of Art. 9, paras 1 and 3 of the Transitional and Final Provisions of the Radio and Television Act in 42 towns and cities. Television communication activities based on these provisions is concentrated on the large cities and targets substantial urban audiences. Priority is given to regional broadcasting – 107 TV channels broadcast with a regional or local range, and there are 76 offering national coverage. Of the TV channels which broadcast via satellite 102 offer a variety of themes and 81 are specialized (most often they are film or music channels). Specialized channels offer national coverage while regional stations offer the widest range of programs.

A total of 169 TV channels are broadcast by commercial operators and 17 by public broadcasters, which is proof of the liberalization of the television market and its governance by free market competition principles.

The three national broadcasters, BNT, bTV and Nova, aim at a nation-wide audience and are setting an increasing trend by broadening their national coverage.

The total market share of the three national channels was 72.4 percent for 2003, 71.3 percent for 2004 and 68 percent for 2005, although this fall does not result from increased viewing of cable television channels.

Cable television penetration in private homes accounts for 54 to 56 percent of households (38 percent in rural areas and an average of 66 percent in urban areas, with substantially higher values in the large cities – 79 percent in Plovdiv, 75 percent in Rousse, 83 percent in Blagoevgrad). The channels showing most dynamic growth are Diema 1 and Diema 2, Alexandra, Planeta, BBT, TV Europe and SKAT. No change is observed in Eurocom Sofia and MSAT.

Table 12. Television Stations (only those with Program Licenses)

Year	1997	1998	1999	2000	2003
Television stations	30	31	32	86	98
Programming in hours	261816	506698	177760	395369	498091

Based on the results of a sociological survey performed by BBSS Gallup/TNS there was a general decrease in viewing figures between 2003 and 2005 – in terms of frequency and length of viewing:

- 2003 – 212 minutes of average daily viewing
- 2004 – 198 minutes.
- 2005 – 199 minutes.

This trend is notable among youth audiences and those under the age of 40. The over-50s make up the most active television audience. The decrease in viewing figures is highest in the capital and in cities with populations above 100,000.



Radio

There are 143 licensed radio stations in Bulgaria and of these, three offer national coverage – the Horizont and Hristo Botev stations of Bulgarian National Radio (BNR), and Darik Radio. Forty-two radio stations offer local coverage for a total of 240 towns and cities throughout the country. In nine cities with populations of over 100,000 there are 115 radio stations offering local coverage.

There are 18 radio stations broadcasting only in the largest cities with populations over 100,000 and most of these cities are also regional centers.

There are telecommunications operators in 120 towns offering services under art. 9A, para. 2 and para. 3 of the Transitional and Final Provisions of the Radio and Television Act, with legal rights to provide radio broadcasting until competitions are held for each license.

Table 13. Radio Stations (only those with Program Licenses)

Year	1997	1998	1999	2000	2003
Number of stations	33	33	42	67	89
Programming in hours	314773	354664	392055	493376	525511

Music and Sound Recordings

The music industry in Bulgaria has been developing since the early 1990s. Up to 1989 there was a state monopoly with a single national music recording company and a single label – Balkanton. Musicians’ rights were represented by the Muzika Agency and national radio. During the years of transition to a market economy, new private initiatives in music producing, publishing and representation evolved. These led to private recording studios, labels, concerts, video clips, tours, live performances, promotion activities, advertising, etc. After the promulgation of the Law on Copyright and Neighboring Rights (1993) and the constitution of organizations for collective representation of artistic rights under Article 40, there has been a growing number of companies producing licensed musical products. Parallel to this there has been an effort to curb the economic damage caused by distribution and sales of pirated products.

The first Bulgarian company representing an international label was founded in 1992.¹ This was the beginning of the legal music market in Bulgaria and companies of this type have since become the driving force in fighting music piracy. To date there are 10 publishers who are license holders for international labels.

There are 42 companies in the Bulgarian music industry sector. They publish and distribute licensed products on the major music labels and handle Bulgarian performers. Ten of the most outstanding production companies are members of the Bulgarian Association of Music Producers. PROFON (the Organization for Collective Representation) consists of 53 members, producers of recordings and of performers, of which 43 are corporate and nine are individual members.

¹ Virginia Records is an exclusive partner of Universal Music Group: www.virginiarecords.com; Currently there are representatives of the international companies EMI, Warner Music, Sony BMG, Edel Re-cords, as well as for other smaller labels.

The music production market is growing, and at the same time there is an improved economic status, an increase in purchasing power as well as more effective law enforcement which accounts for more effective collection of royalties on contracts between musical product users and the organizations for collective representation (PROFON and MUSICAUTHOR). The increase in producers and recording studios over the past few years has gone through a period of restructuring of companies from publishing and producing to those launching their own media (radio stations or specialized TV channels).

According to the survey, publishing and reproduction of audio recordings (National Classification of Economic Activity 2003 codes 22.14 and 22.31) have seen the most substantial growth, which shows this to be one of the most rapidly-developing sectors, comparable in growth with film and video, which is the top performer.

Payner Music Ltd - a Vertically-integrated Music Company

This is the only music company in Bulgaria which has its own full production facilities – from producing, through recording (audio and video tapes, DVD), distribution, print (covers, posters), agency (concerts and tours), a department dealing with stage management, a TV channel, professional film crews for the production of musical clips and commercials. The company owns a chain of 10 discos throughout the country and their artists perform there every evening. All staff members (about 350), including performers, writers, arrangers and musicians, have labor contracts with the company, and it owns the copyrights under the Payner label. About 80 percent of the music is original and about 20 percent cover versions. Payner works with another 1000 or so people for advertising, photography, make-up, props and sets, etc. According to some surveys their market share is currently over 50 percent, with 300,000 DVDs, CDs and audio tapes released in 2005 of which 200,000 have already been sold. This equals the sales of all other companies on the Bulgarian market combined.

Theater, Opera and Ballet

This major cultural industry is characterized by the extremely high share of funding (central and local government), as well as its fundraising, donations, special grants, sponsorship and advertising.

Theater

The reform that started in 1997 in the budget-funded areas has led to the transformation of a rigid structure to more flexible organizational and funding mechanisms. Some of the repertory companies have been replaced with a new type of theater – the open stage. The operatic and philharmonic associations have come to replace orchestras and opera and ballet companies which all used to exist separately. The system led to the establishment of new, independent organizations. Models of project funding were introduced which were made available for state subsidies and private organizations.

Subsidies¹ for performing arts, theater, opera and music over the period 2003-2005 have risen by 12.9 percent as a share in the overall spending on culture (0.72 percent of GDP for 2005). The subsidies for these art forms comprise 0.2 percent of GDP. Although it is impossible to link subsidies for a particular type of cultural organization to accounting outputs for theater, opera and ballet, the contribution of the latter to GDP remains among the lowest - 0.039 percent.

The National Statistical Institute publishes data on theaters in Bulgaria (including opera, ballet, operettas, opera and concert halls, puppet and drama/puppet theaters) against a set of indicators revealing their number and capacity, performance and audience numbers (in thousands).

¹ Source: Ministry of Finance, National Budget Act 2003; Ministry of Culture, Financial Department. Information provided by ERICArts Compendium of national cultural policy profiles www.culturalpolicies.net.

Table 14. Theater Activity in Bulgaria – 1998, 2000 and 2005

	1998	2000	2005
Number of theaters	85	75	75
Number of seats	28 694	30 277	30 105
Number of performances	12 627	10 465	10 776
Number of visits (thousands)	1 876	1 286	1 475

Source, NSI, 2006.

Of the 75 existing theaters 42 are state funded (either by central government or with mixed funding), eight are municipal and the remainder are run by private organizations. Over the period 1998-2005 there was an approximate decrease by about 12 percent in the number of theaters but the total seating capacity has risen by about 5 percent after the slight decrease in 2003.

The decrease in the number of performances in the late 1990s has now been overcome and in 2005 there was about 2.8 percent growth compared to 2000. Similarly the drop in audience numbers from the late 1990s has also been overcome and since 2000 there has been a growth of 14 percent.

Orchestras and music companies

Based on their genres these can be subdivided into opera, opera and concert performances, symphonies and chamber orchestras. Of a total of 29 orchestras, the four opera and philharmonic associations have been included in the statistics showing the audience capacity and number of visits. According to funding sources for 2005, Bulgarian orchestras can be classified as follows:¹

Table 15. Types of Orchestras in Bulgaria for 2005 according to Type of Funding

State	Mixed funding	Municipal	Private
5	9	11	4

The activities within this particular intellectual property sector are closely related to the availability of regular budget subsidies for the entire cultural sector. National statistics provide only summarized data on commercial companies and separately on budget-funded organizations. Analyzing the two sources in parallel cannot be as thorough as it should be, thereby leading to further confusion in the division between state-funded and private companies. At this stage it is impossible to differentiate between the contribution of private music companies and producers from the theaters which run on subsidies but have box-office revenues albeit without generating profit. These specific traits are based on the tradition in most European countries of subsidizing the performing arts sector; even private initiatives and non-state funded organizations which do not generate profits.

¹ Georgiev, M., Bulgarian orchestras – *piano* or *forte* Information bulletin, Kultura, issue. 1, 2005.

Visual Arts

Data on artists in this sector is mainly provided by the Union of Bulgarian Artists – a not-for-profit organization which has existed under this name since 1953. Over 2700 artists and critics are currently members of the Union. The organization has 16 specialized sections - painting, graphic arts and illustration, sculpture, criticism, caricature, artistic spatial design, stage design, restoration, sculpture, design, ceramics, graphic design, "13" - new forms of expression, wood-carving, artistic processing of metals and leather, textiles.

Regional offices are set up throughout the country to serve members on a regional basis. Membership is individual and it is of the union itself, not of one section. Therefore an artist may be part of as many sections as he or she works in, which is why there are no statistics on the membership per section, although most members are involved in painting, graphics and illustration. The Union has branches in 26 towns throughout Bulgaria among which the most active and influential are those in Plovdiv, Varna and Veliko Turnovo.

The Union of Bulgarian Artists owns the largest exhibition complex specializing in presenting Bulgarian art. It hosts an average of eight exhibitions per month – one-man shows, collective shows, anniversary shows, retrospectives and visiting exhibitions. The Union has its own Creative Fund which provides funding for its activities. This Fund covers workshops all over the country and includes a publisher – the Bulgarian Artist. Production companies are Plastic UBA Ltd Sofia, Art Centre UBA Ltd Plovdiv, Dekart UBA Ltd Sofia, Artist UBA Ltd Spanchevtsvo. The fund also includes graphics workshops in Sofia and Samokov and creative centers in Balchik, Bojentsi, Veliko Turnovo, Varshets, Dolna Banya, Sozopol and Shkorpilotsi.

The Supporting the Arts in Bulgaria fund, affiliated to the UBA, was set up in 1993. Its main goal is to combine charity, contributions, creative and other initiatives of state, public and private organizations, companies and other private persons and corporate bodies, connected with the fine arts or working on behalf of Bulgarian artists. The funds thus raised are used for the annual awards of the UBA, for scholarships and competitions, for the financing of artists of different generations.

UBA supports its members by providing them with information on events and forums at local and international levels, and facilitates their art networking. Union members are able to benefit from copyright protection through the IZA ART Agency, which was set up by contract in 1997. Over 250 artists are members of IZA ART. The agency has contracts with associations of artists, publishers and advertising agencies in many towns throughout the country. Membership is individual. Collective rights protection is provided for contractual agreements on copyrights as well as in court proceedings concerning violation of the Law on Copyrights and Neighboring Rights.

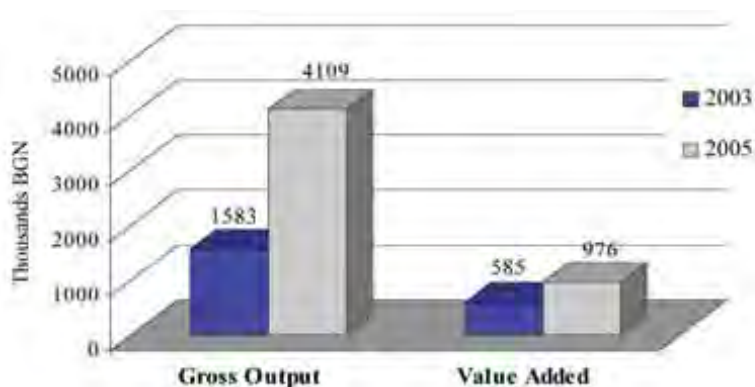
An important aspect in the development of visual and graphic arts since 1989 has been the development of private initiatives in the area as a result of the liberation from state control. Throughout the 1990s and the beginning of this century, private art galleries have opened in most Bulgarian towns. After initial problems, the private gallery owners have managed to gain the trust of artists and art-lovers, and were able to restore the important moderating role of private galleries which had been forgotten. Many of them have gradually specialized in a particular art form or have started working with particular artists.

“There is a magazine called Art which dedicates one issue per year to galleries in Bulgaria. They called us last year – ‘We’re checking out who’s left’, they said, ‘because many of the galleries that were founded in the early days of democracy are no longer part of the landscape. There are many people who think that opening a gallery is like going to bed and waking up a millionaire. This in fact is hard work over many years. One can’t be so naive or optimistic – you can’t open a gallery and just see the money flow in. It doesn’t work that way.” (Interview with a gallery owner from Plovdiv, 2005)

Having emerged onto the free market environment without solid traditions, including the normative or fiscal regulations in the sector, some galleries still exist on the borderline of the informal economy. Some artists still prefer to sell their works directly to art collectors and individuals outside the gallery structure, which is against their own interests.¹ It is also a fact that throughout most of the 1990s in the economically volatile environment, works by Bulgarian classical artists and prominent, promising young artists were deemed a secure investment. Many of the newly-emerging businessmen, private banks and other art lovers who could afford it have accumulated substantial collections. This process is still on the increase, due to the gradual emergence of a middle class. It is therefore too early to assess the real economic impact of private enterprise in the sector in terms of volume of sales, added value, employment, etc.

This conclusion is also supported by the description of the private enterprises in visual and graphic arts under the respective code for economic activity 92.52 – Gallery and Museum Activities. Over the period 2003-2005 only 29 entities have been covered by it. As the mapping of the cultural industries in Plovdiv reveals, for that city alone there are more than 10 private galleries. This means that most of the entrepreneurs in the sector if registered at all have done so under a different description. But even the very limited data from the national statistics demonstrate impressive development over the short term between 2003 and 2005 – taking into account inflation, sales (gross production) have increased 2.5 times, and added value has also increased by 50 percent with the number employed rising by more than one-third (from 171 to 232 owners and employees).

Graph 49. Dynamics of Economic Activity of Private Galleries and Museums for 2003-2005



Set against this background of development, the sector has been going through a process of structural reform and self-organization of the private galleries (mainly in the large cities) to address the sector's issues and to launch major events like the Night of Galleries and Museums.² This and other similar initiatives demonstrate that when there is real partnership with the authorities in the copyright sector, the sector itself can rapidly increase its economic and cultural contribution to the region.

¹ Nothing can replace the facilitating role of a good gallerist who can follow trends and show an artwork to its best advantage, thus offering a professional service to prospective clients.

² <http://www.gallery-night.info>.

Photography

Up to 1989 photography in Bulgaria was organized through the state association, Bulgarian Photography. In 1952 a photo archive was established as part of this Association and a number of outstanding photographers worked there, photographers like Nikolay Popov, Petar Bojkov and later the young Ivo Hadjimishev, etc. In 1967 the Association began publishing the Bulgarian Photo Magazine founded by Petar Boev, Ram Hadjulyan and with Albert Cohen as editor-in-chief. Some time later the Bulgarian Photographers Club was founded – to encourage the development of talented young people. The club was the first to begin organizing photo vacations at the seaside, the Biennial of Bulgarian Photography and other events. Although this was still a highly ideologically-limiting environment, Bulgarian photographers had the opportunity to develop and perhaps that is why over this period “the most severe political quarantine was aimed at Bulgarian film, TV and radio. Photography was left on the periphery. It was one thing to have your film script approved and a completely different matter to tour a photo exhibition of the Rhodope abroad.” Another reason was the high aesthetic standards of the most outstanding Bulgarian photographers of the time who managed to preserve the art form. Even in those years many Bulgarian photographers became members of the International Federation of Photographic Art (FIAP), and of other foreign photographic organizations.

“The Bulgarian Photo magazine was a very reasonable place and also a window to the best examples of art photography, a place setting the standards of the young people – because it was a window on the world.” (Ivo Hadjimishev, interview)

Over this period a number of publications like the *Pogled* weekly and the *Otechestvo* magazine also played a formative role in the setting of professional standards and the development of art photography.

After 1989 the Bulgarian Photography State Association was transformed to a state joint stock company. Private companies which began to appear, run by Bulgarian entrepreneurs, as well as the newly established representative offices of the major international companies like Kodak, Konika-Minolta, Canon and others and began to destabilize the position of the association, causing it growing economic hardship. In the late 1990s the major part of its assets (mainly photographic studios in most Bulgarian cities) were sold by auction and the joint stock company was privatized by the Privatization Agency in 2002.

Where previously the professional organization existed, after 1990 a number of new photographic unions and associations emerged. The Bulgarian Photographic Association is of a fairly moderate size, “both a conservative and open to young talents club”, which aims at preserving and developing the aesthetic standards of photography by organizing substantial projects. Another national community of mass appeal is the Photographic Academy founded in 1992 by Yanka Kyurkchieva and 32 other photographers from all over the country. The current Chair of the Association is Yavor Popov and Mrs. Kyurkchieva is its honorary Chair. The statutes of the academy read that it “...unites the efforts of the photographic community towards a better awareness and reputation of Bulgarian photography in the country and abroad, and works towards the protection of professional interests of photographers in Bulgaria.”

The change in the economic environment has led to more opportunities for Bulgarian photographers, but has also led to serious difficulties resulting in the closure of the Bulgarian Photography magazine, *Otechestvo* and a number of art photography centers. Between 1999 and 2003 the *Photooko* and the *Photo Model* magazines appeared and for a while they provided the meeting place for major events of Bulgarian and foreign artists. In 2003 the FO *Monthly Magazine for Art Photography, Classical and Digital Photo Technologies* and Pre-Press was founded. The magazine folded in 2005 due to financial problems. With the increase in new electronic media there are a number of websites and Internet forums with similar goals (e.g. the publishers of *Photooko* magazine now maintain the Photo Information Center - <http://photo-zine.com>.)

With the development of the media and advertising market many artists from the sector now find good possibilities for professional development although this sometimes calls for a professional compromise. With the collapse of the state photography sector in the mid-1990s, compensated to a large extent by the efforts of a number of prospering private companies who invested part of their income in the resurrection of traditional events, a number of new initiatives emerged in collaboration with the Photographic Academy, the Bulgarian Photographic Association and other professional organizations.

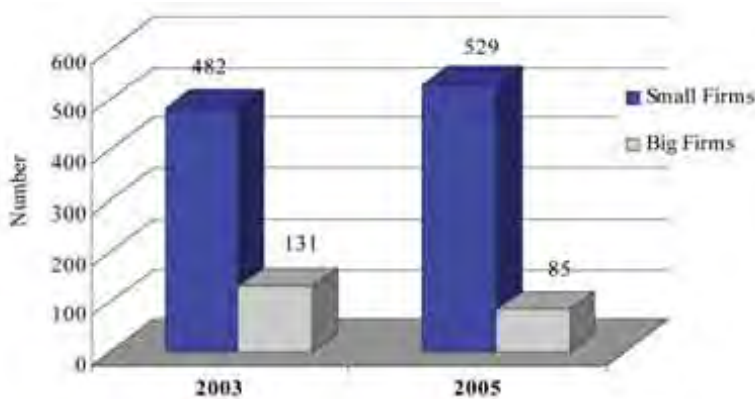
Fomus – One of the Major Private Sponsors of Art Photography

Fomus Ltd is the official distributor for Kodak and Gretag in Bulgaria. In September 1995 the annual photographic meeting Photo Vacation was organized by the Photographic Society – Bulgaria. In April 2001 Fomus celebrated its tenth anniversary and organized the National Competition of Contemporary Bulgarian Photography 1991-2000: 2220 amateur and professional photographers took part and a representative collection of the 425 best works by 134 artists was assembled.

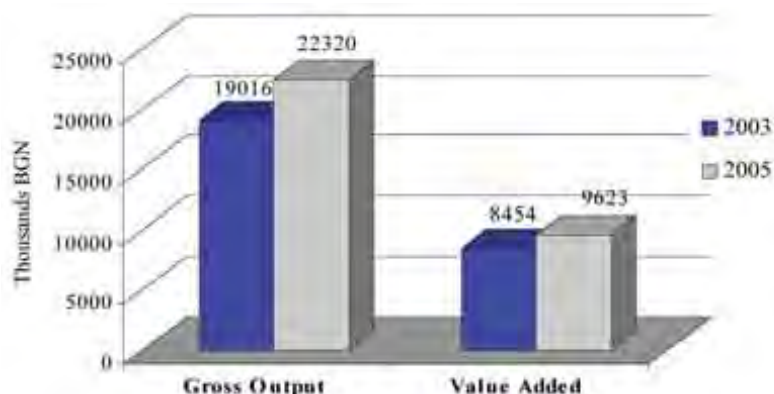
The Bulgarian representatives for Konika-Minolta organize an annual photography review. With its large-scale exhibitions providing substantial prizes and with some of the leading photographers on the jury, Canon Bulgaria has also made a major contribution to the development of photography in Bulgaria. The activities of Alexander Bojinov and his Fodar Foundation based in Pleven are notable, with its Biennial of Experimental and Avant-Garde Photography. These are just a few of the events organized by entrepreneurs and art photographers.

The data reveal that in the period 2003-2005 the number of companies and workers in the sector has remained stable – 613 companies and 2013 employees in 2003 and 614 companies and 2034 employees in 2005 respectively. These are predominantly small companies, although the decline in numbers of large companies is an indirect indicator of the growth of the sector as new small businesses emerge.

Graph 50. Number and Size of Photographic Companies for 2003-2005



As shown, the economic contribution of the sector for 2005 exceeds BGN22 million in gross production and almost 10 million in added value. According to these parameters photography is ahead of visual and graphic arts, as well as the organizations for collective copyright presentation. Its economic contribution is higher than all partial industries, with the exception of architecture.

Graph 51. Gross Production and Added Value in the Photography Sector, 2003-2005

Taking account of inflation over the period studied, gross production increased by 5 percent, added value by 2 percent and the number of employees by 1 percent. This is substantially below the average copyright industry indicators. These figures are the result of the major technological changes taking place – the increase in digital media and the decrease in orders from traditional studios. At the same time this restructuring accompanies a process of merging of photography with other copyright-based industries – more often a substantial part of photographic services and especially art photography are delivered as part of the advertising, book publishing, press, Internet and other sectors. This has been confirmed in discussions with experts. Ivo Hadjimishev speaks about the new challenges facing art photography, referring to the change in institutional conditions and respect of copyrights:

“I recently performed a study of the private and state galleries involved in collecting photography in the US. One thing was repeatedly mentioned – young photographers who are just beginning their careers and have talent cannot survive on just art photography... Advertising agencies keep an eye on them and immediately attract them for one project, then another and another. That's where the serious money comes from... But that is also very dangerous. The photographers begin to lose their identity because there is the stylist hanging over you, then there are the make-up artists, and somebody writing the story-boards, and you are dead.

Another area which is really professional is that of sport photography... Because you need talent, instinct, knowledge of the discipline, it is a huge business. The young generation of photographers can be seen on the pages of the lifestyle magazines and fashion magazines – that's where the money is. The industry of publications like the National Geographic is on the decline, and that was the Mecca of the breed of documentary photographers now killed by television. In this magazine they are replacing the management thinking that with a new editor-in-chief they will have a larger circulation. They don't realize that there is a change in generation and the current one does not read the paper edition – they are the generation of monitoring.” (Ivo Hadjimishev, interview with the author)

We conclude with one of the major problems of the sector – the protection of copyright and neighboring rights. Photography, unlike other sectors where the issue has been regulated at government level, had been experiencing problems with copyright for decades before 1989. The leading photographers made great efforts to insist on being credited in publications for the work they had provided, and this issue has still not been overcome:

“They still have a problem with us when we go to a publisher and tell them, 'Look, here's the deal, you pay this amount towards a one-off publication of the image.' They can't seem to get it and still think they're doing us a favor by publishing the image, and then all you can do is start giving in, and be proud and happy that you're in this or that book... We have still not seen a photographer in Bulgaria sue a major publisher for violation of their copyright. Because the publisher passes over you like a tank...” (Views of experts in Sofia and Plovdiv.)

Advertising

The advertising industry in Bulgaria has been developing progressively since 1989. The constant demand for advertising services is driven by the booming market economy, the expanding private sector and the arrival of major international companies. Understandably, in the first half of the 1990s and even afterwards¹ the advertising industry appeared to be a convenient way of covert relocation of resources from the public sector into private hands in conditions of lingering privatization and political command of the economy. This has to be borne in mind as the performance of the advertising sector in that period did not always indicate a real revitalization of the economy. However, it was then that experience was obtained and contacts were established with the world's leading advertising agencies. Privatizations after 1998 and the arrival of major advertising conglomerates stepped up the development of advertising services countrywide.

The Association of Advertising Agencies – Bulgaria (ARA – Bulgaria) was established in 1995 as an independent public organization (www.arabulgaria.org). Its statutes define the organization's main goals as to the adoption of high professional standards and ethics among its members, the protection of their interests and the promotion of international exchange of information between the ARA – Bulgaria and other associations and organizations that have similar objectives. In 1996 the ARA – Bulgaria joined the European Association of Advertising Agencies which some time later was renamed to become the European Association of Communication Agencies (EACA). In 1996 the Association launched an annual National Advertisement Forum. Between 1997 and 1999, jointly with the Flag Consortium, the Association organized a series of seminars with Bulgarian and foreign keynote speakers. Another important ARA event was a PHARE Program-funded project implemented in 2000-2001 jointly with the *Association française des Agences Conseil en Communication* (AACC), the project title being: Technical Assistance and Transfer of Know-how to the Association of Advertising Agencies – Bulgaria. Since 2000 the ARA has organized an annual National Advertisement Festival and awards prizes.

In the opinion of Alexander Toromanov, manager of the Bulgarian liaison office of the US advertising agency McCann Erickson Sofia, 2001 saw a major change in the sector:

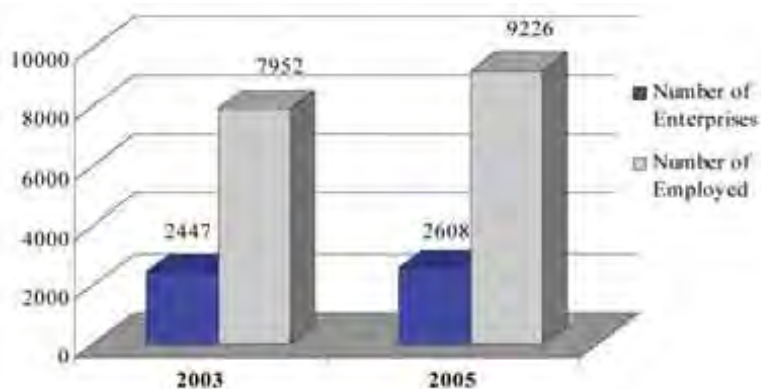
“Quite a number of advertisements were produced in Bulgaria prior to 2001. However, it is evident that the arrival of a second mobile service operator in a country totally changes the advertising market. The operators put a lot of money and know-how in their marketing and start making large quantities of TV adverts, which act as a spur on the local companies. The mobile service operator's aggressive marketing urges the other companies to do the same. Though it might be a coincidence: the market reaches a level where the major Bulgarian manufacturers that have not placed adverts so far nor have they realized the purpose of advertisement, decide on reorientation. (Interview in Dnevnik newspaper of 14 June 2002).

¹ Similar observable facts exist even today as evident from the recent exposures of the advertising contracts of the Government-owned company *Bulgartabac*.

To quote the President of the ARA Board, the state of the advertising industry in Bulgaria “mirrors exactly the state of our industry. All its deficiencies and problems do impact it. Naturally, the advertising industry is far better developed than government-owned sectors and entities as it is in the hands of international companies that control 80 percent of the whole market. They have established a *modus operandi* that is valid globally.” (interview of G. Nedelchev, Monitor newspaper, No 2899, 24.04.2007.)

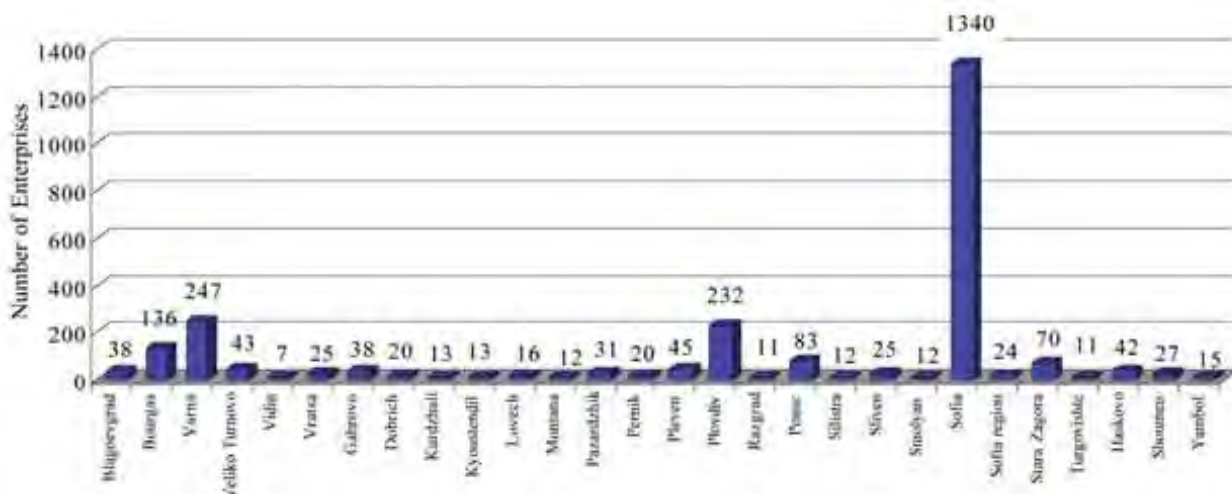
The advertising sector ranks third among the major copyright-based industries in terms of number of employees (9228 in 2005). That the number of companies and of their employees grew by 7 percent and 16 percent respectively between 2003 and 2005 is evidence of fast development. The chart below shows the change in the absolute number of companies and employment in the sector.

Graph 52. Number of Advertising Agencies and their Employees in 2003-2005



Over half of the advertising agencies are based in Sofia. The numbers in Varna, Plovdiv and Bourgas are significantly lower. Three-quarters of all advertising agencies are based in these four cities. The bottom position is taken by a group comprising eight regions with possibly fewer than 13 agencies.

Graph 53. A Regional Crosscut



A relatively young private industry with a 15-year record finds it difficult to recruit highly-skilled staff. Advertising is taught only at the Faculty of Journalism and Mass Communications at the Sveti Kliment Ohridski University of Sofia, at the New Bulgarian University and at the American University in Bulgaria (AUB). The graduates of these three universities are therefore preferred by the advertising agencies. For instance Leo Burnett Worldwide which entered the Bulgarian market in 1994 replaced its team in 1996 with

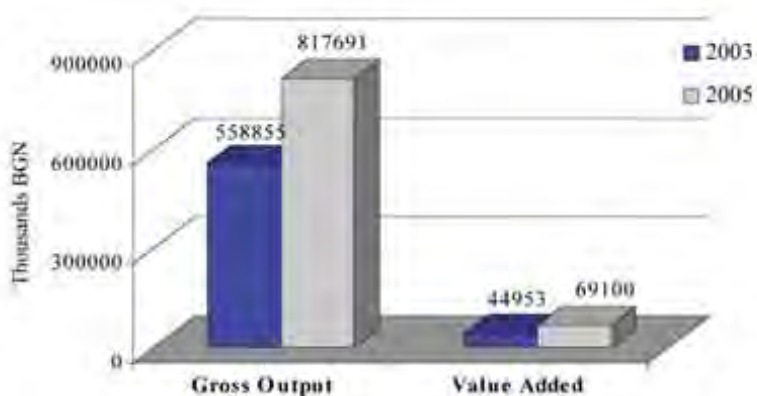
the first batch of AUB graduates. According to Nenad Lozovic, former representative of “S Team” Bates Saatchi & Saatchi in Sofia, now owner and manager of New Moment New Ideas, the non-availability of trained professionals is a real problem for the advertising business in Bulgaria: “...each newly appointed man or woman costs us a lot of investment in training as the advertising industry in Bulgaria has no traditions.”¹ (www.yvox.net, 7 April 2005.)

Internet Advertising in Bulgaria in 2007

“In 2006 Bulgaria’s gross agency market was worth BGN12.5 million (7 million net), annual growth rate of 110 percent. The highest spenders on Internet advertising in 2006 were the communications sector, followed by the banks, the financial services and the automobile industry. It is expected that in the next couple of years Internet advertising will constitute between 5 and 10 percent. Another leading trend on the Internet market is consolidation through purchasing smaller or larger sites. In 2007 the Internet advertising market will generate gross revenues of approximately BGN20 million whereas the net income will amount to BGN12 million. This is the forecast of the executive director of the Investor. BG Internet company Lyubomir Lekov.” (source: <http://novini.dir.bg>.)

With a gross output amounting to BGN818 million in 2005 the advertising industry was the leader among the major copyright-based industries. However, the value added in the sector is significantly lower – BGN69 million or slightly more and thus the sector is out-performed by the book publishing and printing industry, software engineering and radio and television. The change in the advertising companies’ gross output and value added in 2003-2005 indicates a sizeable growth rate with a 31 percent increase in the gross output and a 38 percent increase in value added, adjusted for inflation.

Graph 54. Dynamics of Gross Output and Value Added in Advertising in 2003-2005



Experts believe that in the first few years following Bulgaria’s accession to the European Union the advertising market is expected to achieve a 20 percent annual growth rate which is well above the developed countries’ average. This rate of growth is expected to continue for several years and then stabilize at globally prevailing levels. Reprinted below are two excerpts of forecasts made by leading figures in the advertising sector and printed recently in the Bulgarian media.

¹ Lozovic mentioned other problems facing the advertising industry: the relatively low percentage of long-term contracts. “...Long-term partnership with a customer makes it possible to plan units to serve exactly that customer. This is unobservable on our market, since some advertisers prefer to change the advertising agencies almost every year as they believe this will supply them with novel ideas.” A third major problem, in his opinion, is the harsh restrictions on advertisements, which criticize some of the rules laid down in the Antitrust Law.

ARA President Krassimir Gergov announces a Record 35 percent Growth in Investment in 2007

Krassimir Gergov (one of the major stakeholders in the country's biggest media shop Piero 97), reported the 2006 advertisement net figures at the eleventh annual forum of the Association of Advertising Agencies. The estimates were based on Gergov's 'personal sources' and show a 38.33 percent increase which is €183 million in real terms of the 2006 investment in 2005. Internet advertising is the leader with 88 percent growth; radio advertising in second place with 42 percent; outdoor advertising ranks third with 38 percent and television advertising accounts for 37 percent with the printed media at 36 percent.

"In 2007 the total advertisement budgets will amount to €250 million which is net net investment (i.e., what remains after the discounts to the media and the agencies' commission). Hence the essential differences between these real sums and the gross sums that the monitoring agencies monitor and that Kapital publishes early in the year. According to Market Links data about investments in TV commercials in 2006 the advertisers put some BGN350 million in the media that they found most desirable whereas Gergov reports BGN182 million." (*Kapital* newspaper, No 20, May 2007.)

The Software Industry**The recent past**

In the 1970s and 1980s Bulgaria was a traditional exporter of hardware and software within the framework of the former Council for Mutual Economic Assistance (COMECON) which was the socialist countries' economic community. In 1990 a team from the US National Chamber Foundation led by Richard Run estimated that: "...According to the official financial statistics for the year 1989, electronics and telecommunications technology accounted for 25 percent of Bulgarian industrial production, and the main part came from the eight large vertically integrated production organizations, while in the field of R&D, there were five main institutes, assisted by an interdisciplinary Coordinating Centre in the Bulgarian Academy of Sciences. In this branch a total of 130,000 people were working, 8000 of whom were highly qualified engineers. According to independent sources, in the financial year 1989 about 95 percent of the total production in this sphere was sold on the COMECON market, mostly to the USSR. In the last years of the 1980s, Bulgaria became the leading supplier for Soviet scientific-research and industrial institutes for fifth generation computer systems for scientific studies and projects. Moreover, Bulgaria covered a large share of the Soviet market for PCs." (Run, R. and Utt, R. /1990/, Bulgarian Economic Growth and Transition Project, National Chamber Foundation, Washington, p.22-1.)

Below is the observation of another US consultant group on the software situation in 1990.

The Bulgarian Software Industry in 1990: Short on Business, Heavy on Science

Commercially, Bulgaria is the least developed country we visited, but perhaps for that very reason its software community is among the most advanced. Because of the dearth until now of small businesses, much of the work is either custom systems for government outfits, or development tools and scientific or graphics packages, frequently for the Soviet Union, to which Bulgaria is a big supplier of both hardware and software.

The major commercial software house is Software Products and Systems Corporation, a giant state-owned combine with 1700 people that has been profitable by its own account and growing since it was assembled from a group of smaller companies in 1984. It reached revenues of \$20 to \$80 million last year. It also owns 40 percent of Novintech, a Soviet-based joint venture that's an umbrella for a hundred-plus computer-oriented small enterprises throughout the USSR. Right now, the management of SP&S and its many parts are trying to adjust to a rapidly changing world. The company has ploughed its profits back into "social

development" such as cafeterias and company housing, and into its own expansion. It is building an impressive new headquarters complex near the center of Sofia, using Polish construction crews and materials from Poland paid for in computers and software. Another unit runs a training company which trains 5000 professionals a year. Recently it has opened a modern training center in Plovdiv (Bulgaria's answer to Silicon Valley) with 50 classrooms and a 200-bed residential complex.

Among SP&S's units is Interprogramma, a 200-programmer research institute owned in a joint venture with the Soviet Ministry of Electrotechnical Industry and Instrument-Making (MinElectroTekhPribor). Its products include a sophisticated mainframe text database, more than just an index-and-retrieval system, which manages documents as objects with structure and hierarchy; Multi-C, a hierarchical development environment for the C language that lets you manipulate and edit your code at four levels; and GrafCAD, a CAD package for the PC. (*Report of a US consultant group, source: <http://findarticles.com/>.)*

Eight years later a report on Bulgaria's market for computer software prepared by the Commercial Service of the US Embassy in Sofia concluded as follows: "...Bulgaria has many well educated, talented and English speaking software programmers, who are used for the development and implementation of software projects in Bulgaria. Ninety per cent of the software produced in Bulgaria is customized and only ten percent is off-the shelf application software. As there are no official statistics available, the size of the Bulgarian software market was estimated on the basis of interviews with Bulgarian industry specialists. The sales of locally produced software for 1998 amounted to \$13 million, up from \$10.4 million in 1997 and \$8.3 million in 1996. The major part of the market is held by seven big local companies which produce software and localize the products. These companies have aggregate sales of \$8 million per year. There are about 200 small software developing companies which typically produce five or six customized products per year for the amount of \$100-150 each, which would indicate total annual sales of under \$180,000 total. Many of these small software developers are working in the field of development of customized application software in the area of accounting, payroll and business management, and database management, which is very well accepted on the market, because it is in compliance with the Bulgarian legal and accounting framework. However, the software developed locally until now does not provide global solutions." (Source: CEE Business Information Center /CEEBIC/, U.S. & Foreign Commercial Service, 1998.)

The report mentions software piracy as a serious issue in Bulgaria and notes that the Bulgarian Government is taking measures to stimulate the use of legal software starting with the State Administration, as exemplified by the agreement signed with Microsoft in 1998 to use only licensed Microsoft systems and software applications.

The Heaviest Blow to Software Piracy in Bulgaria

February 2001: A total of 6000 pirated CDs and 5 computer configurations installed with unlicensed software were seized by the police in the course of a large-scale operation last Thursday at Slaveikov Square. This is the first anti-piracy operation in the open which traced and searched two warehouses that supply street vendors with pirated disks.

The highest number of unlicensed software street vendors is found at Slaveikov Square. For years its name has been synonymous with buying and selling pirated products and of vendors who go unpunished. The operation involved over 30 officers from the Economic and Criminal Police of the Ministry of the Interior, Sofia Division. The computer club at 4 Khan Kroum Street which is very near to one of the warehouses that supply the vendors with disks was searched within the framework of the operation. Thirteen computer systems with pirated software were seized. Six vendors and suppliers were arrested. The police are investigating three other persons.

Last January, within the framework of the anti-piracy program of the Ministry of the Interior (Mol) and of the Business Software Alliance (BSA), the Sofia Police Division searched Prolife Engineering OOD in Sofia and the gamers club of a one-man company, VIM, in Pancharevo for pirated software. All computer systems with pirated software were seized. Both cases are being investigated.

The BSA Committee for Bulgaria was founded in early 1999. Today its members are ActSoft, Datex, NTCHS, Microsoft Bulgaria and ProSoft. (Source: www.microsoft.com/bulgaria/press/news_02022001.aspx.)

The Software Industry today

A study by CBN Panov & Stoichev commissioned by the Bulgarian Association of Information Technologies (BAIT) showed that in 2005 the real number of IT companies was approximately 1000. Further, the study showed that 2005 was the most successful year for the IT business (sales of PCs, software, networks and services) in Bulgaria. The previous year's revenues of €682 million represent a 22.4 percent increase over 2004 when the market development rates were better than at any previous time with a 14.7 percent growth rate. It is expected that the 2007 IT sector earnings will exceed 1 billion. The IT business concentration is growing: in 2005 over 68 percent of all earnings were generated by the top 50 companies. The agency reports that software companies have earned €96.4 million and the Internet companies, €46.6 million.

The CBN study that covered 821 IT companies shows that with 12,812 long-term contracts of employment they account for 0.44 percent of the permanently-employed workforce. With a further 1000 jobs in the IT sector they boast a 7.7 percent increase over the previous year. The 2006 IT sector job forecasts indicate a further 2000 or so new jobs.

The study exposes the deepening crisis within the IT sector caused by the shortage of skilled manpower. The number of young specialists being trained is insufficient and their skills are unsatisfactory. The study predicts that Bulgaria's EU accession will aggravate the problem and will be one of the factors to be considered for the under-performance of many small Bulgarian companies. The shortage of specialists destroys to a great extent the Government's effort to build the Information Society in Bulgaria. (Source: <http://www.bait.bg>. *Data about the companies' financial results and jobs in 2005.*)

Bulgaria in the World Software Market

Bulgaria ranks among the countries most desired by the world's major software companies for their IT projects. This is the conclusion of the Economist Intelligence Unit. The analysis summarizes the opinion of 500 company managers worldwide. Number 13 in the company of 60 states in terms of being attractive for outsourcing, Bulgaria performs better than the US, the UK, Chile and Romania. India and China are the top countries, according to the analysis, yet it is expected that Eastern Europe will benefit from this situation.

"Bulgaria is the right location for the expensive, fast and non-conventional boutique projects of the software giants," explained Kuncho Kouzhouharov, the BAIT press officer, to Monitor newspaper. "Bulgarian advantages are the availability of highly-competent IT engineers and its inexpensive manpower. Another advantage is that Bulgaria is in the time zone of the central offices of the contracting companies." IT sector experts claim that most Bulgarian companies are currently engaged in boutique projects with 90 percent of the contracts being for Europe, the US, Canada and Australia. (C. Dinkova, C. Tzolov, Monitor newspaper, 24.02.2005).

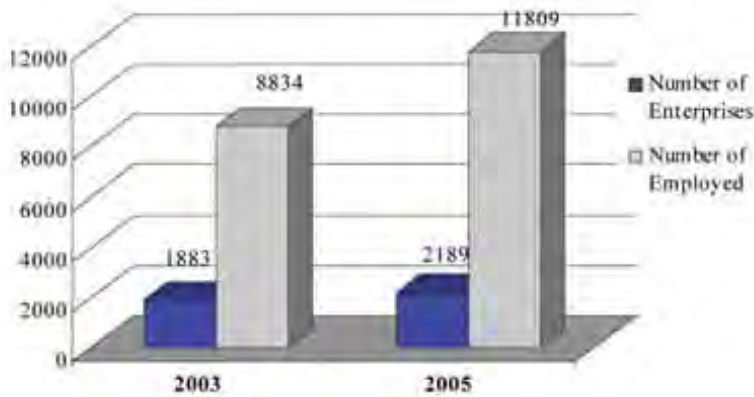
Other interesting data on the 2005 software industry are reported by *Computerworld*, No 24 of 2006. The annual rating of the 100 leading ITC companies included 40 Bulgarian software engineering companies. The results published give the following profile:

- The software business has generated BGN103 million (52.8 million), the breakdown being: software sales – BGN32 million; software development – BGN41.8 million; software installed in system integration projects – BGN30 million. Over one-third of the BGN42 million revenue was generated by the development of software earmarked for export.
- In 2005 the software developers amassed BGN41.8 million which constitutes a 22.2 percent increase over 2004. The ten leading providers are responsible for 75.2 percent of the total amount of revenues generated by software development.
- Twenty-three of the 29 companies that have reported revenues from software are Bulgarian of which six are partially or entirely foreign-owned.
- The average monthly income of an engineer in a software development company is BGN719. The highest reported monthly income is BGN1573.
- On average the rated software companies have 102 recruits. In 2004 the average figure was 94.
- Companies whose core activity is software development report a saving of BGN80,401 per recruit (the ratio of personnel costs to revenue). In the previous year the ratio was BGN31,619 per recruit.
- Nine of the companies that participated in the Top 1000 Software Developers work for export: Fadata, Sirma, Sciant, Rila Solutions, CNSys, Seeburger Informatics, Nemet-schek Bulgaria, DMT, Interconsult Bulgaria. On average 67.86 percent of their output is earmarked for export. In 2005 their software development for customers abroad generated BGN16.3 million of revenues which is 45.5 percent higher compared to the preceding period.

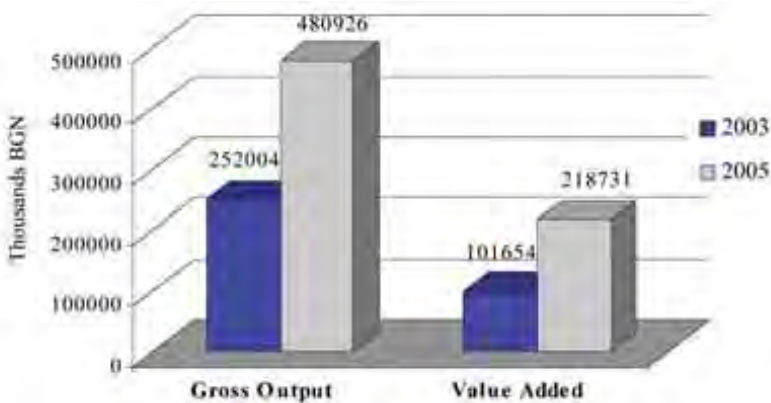
These are consolidated figures computed on the basis of what the companies which responded to the survey chose to report. The experts think the figures are understated and the survey ignores significant aspects of software development in the country. Proof of this is the commentary in the Internet version of the newspaper: "... Your analysis is flimsy and it is my guess it leaves out many western and small players. The former simply repatriate their real profit rather than fill in a tax return for their Bulgarian companies; the latter are small and you left them out. I know of at least five or six companies that go as one small company in your ranking and I know several companies that are not in your ranking though they have between 50 and 80 persons in their employment." (*A software developer who has chosen not to disclose his identity, 04.03.2007.*)

This criticism from an anonymous software developer compares to a certain extent with the data provided by the national statistics. Yet these data are more reliable, since they refer to all software companies, not only to the largest. As mentioned above, software and databases are one of the fastest developing copyright-based industries. During the period 2003-2005 both the number of firms and the number of their employees has increased, while the value added generated almost doubled:

Graph 55. Dynamics of Software Firms and their Employees during the Period 2003-2005

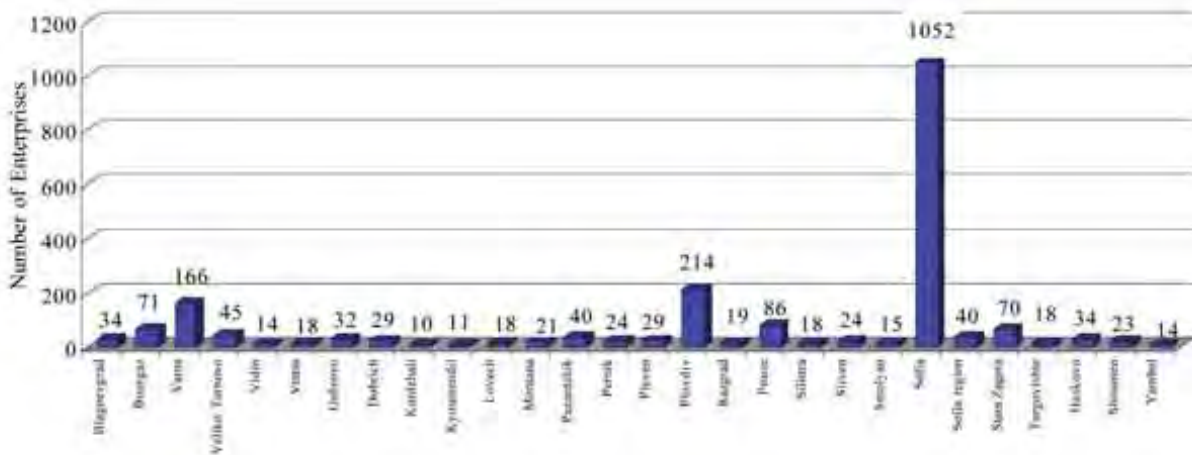


Graph 56. Gross Output and Value Added in Software and Databases during the Period 2003-2005



The current geographical distribution of software companies according to Bulgaria's 29 administrative districts mirrors the distribution of the former centers of the electronics industry up to 1989. Half of the software firms are located in Sofia, followed by Plovdiv and Varna. The other three centers with relatively large numbers of software firms are Rousse, Bourgas and Stara Zagora, as well as those in Pazardjik and the Sofia region.

Graph 57. Geographical Distribution of Software Companies



Software industry prospects

An interview for the Bulgarian version of the newspaper *Computerworld* with a manager of a leading software company accurately summarizes the prospects provided to the sector by Bulgaria’s accession to the European Union in January 2007 and the problems that might be caused by EU membership.

Software in Bulgaria – Prospects for 2007

“All Bulgarian IT companies, my company included, expect that the business would grow in 2007 and that the Government would start making an efficient use of the structural funds that are available to us. As I see it, the reason for not having the desired speed at the start is that the Government institutions find it difficult to define and manage good projects. On the one hand this is to be attributed to the lack of competence within the Civil Service and on the other hand, to persistent corruption.

“The economic context in which our companies will operate in 2007 is far friendlier than before. The reduced corporate tax rate will enable companies to invest more; the imprecision of the Value Added Tax Act vis-à-vis the export of software and services is rectified. Naturally, the Government can do more than that – for instance it is very logical that the Government should offer the preferential treatment now reserved only for foreign companies that plough their profits back into Bulgaria to Bulgarian companies that do the same. The promotion of investment in high technologies is something that governments of vision have been doing for many years now (India, Romania) and the policy has proved to be beneficial for the national economy.

“Unfortunately the problem of highly qualified engineers for the IT sector becomes worse with every passing year. The absence of an adequate human resource policy badly impacts the sector. The entry of IT businesses with low value added (maintenance centers, call centers, etc.) and their presentation as huge investments by foreign companies disturbs the IT labor market. This impacts negatively both the sector and the economy as a whole: extensive businesses deplete government institutions, banks and companies of their IT staff before our eyes. Of course, the market is capable of self-regulation; yet, the big red alert currently is that the acute shortage of highly qualified workers is observed nationwide and not just in the IT sector.

“Membership in the European Union presupposes easier access to the markets in Europe. Understandably, it will take the Bulgarian companies some time to develop their marketing and sales in a way that will make them active players on this market. I believe investment in Bulgarian IT companies will increase. It is increasing even now... In parallel, the wages are going up, hence the need to find other competitive

advantages over the western companies. If the Bulgarian companies are to survive, they will have to make a U-turn from the price-based sales model to sales based on other competitive advantages like specific expertise, products, unique services, etc. This is related to new investment in better marketing, in offices in other countries, etc." (Tzvetan Alexiev, *Sirma Group, Computerworld - No. 4, 200.7.*)

The future development of the sector is closely associated with the promotion of copyright in software development and the fight against intellectual property theft. An IDC survey commissioned by the Business Software Alliance (BSA) forecasts that a 10 percent decrease in piracy in Bulgaria between 2006 and 2009 would result in a 103 percent increase in the IT sector which means that in 2009 it could be estimated at US\$622 million, that over 2000 new well-paid jobs would be created and that the sector would add another US\$130 million to its contribution to GDP. To quote Beth Scott, BSA Vice President who is responsible for BSA operations in Europe, the Middle East and Africa: "...The software has transformed the productivity and competitiveness of any company in any market segment in the world and made the IT industry the driving force of economic development. The survey showed that even the humblest and most achievable decrease of piracy rate could result in a huge advantage for the local economy. With determination and hard work the IT sector's growth in Bulgaria will continue and will go even at a faster pace." (BSA Bulgaria, www.bsabg.org.)

PART FOUR - Conclusions from the Survey and Practical Policies Toward the Copyright-Based Industries in Bulgaria

In this final section we highlight certain points in the analysis of the data, which show certain copyright activities making a particular contribution within the period studied. This must focus the attention of governmental and public institutions and could serve entrepreneurs and other economic agents in the respective sectors as a directive for their activity in developing strategies, lobbying, etc.

This analysis was made possible thanks to the specific methodology applied in this study, giving information on the major economic indicators to the lowest possible level – NCEA-2003 (NACE) codes. This will guarantee an analysis not only of separate activities within the four major groups, but also of the economic activities this group encompasses. The team also uses information gathered during interviews with experts and group discussions, telephone interviews, secondary analyses of previous studies, etc.

The Copyright-Based Industries – a Rapidly-Developing Center, which could become one of the Drivers for Economic Growth in Bulgaria

The picture that emerges after comparing copyright-based industries with other sectors is one of a small, but significant sector – with higher or similar values to sectors such as energy production, hotels and restaurants, health and social welfare activities, and the extracting industries. This picture, however, does not show the growth rate, where the copyright-based industries are among the leaders. The survey registered significant growth in this sector for the period 2003-2005 – in only two years the gross value added, calculated on the index of current prices, grew by 50 percent, the gross output grew by 33 percent, and the number employed by 13 percent. The increase in value added exceeds by far the growth rates of the economy as a whole (11.5 percent). We are therefore seeing a rapidly-growing industry, which, with adequate public support, could become one of the motors of economic growth in Bulgaria in the next few years.

Public Policy in the Culture Industries – from the Distribution of Public Goods to compensating for Market Failures and providing Seed Capital for new Businesses

Calculated separately, the value added of the main copyright-based industries makes up 2.12 percent of Bulgaria's GDP for 2005. With this it exceeds the share of the extracting industries and is close to the share of value added generated by the hotel and restaurant industry. Apart from software and advertising, the remaining seven main industries amount to a share of 1.27 percent of the Bulgarian State Standard. At the same time, the budget subsidies for culture in 2005 made up 0.72 percent of GDP – i.e., a mere third of the economic contribution of the main copyright-based industries, almost twice as low as the contribution of the seven main industries directly connected to culture.

These results have a direct bearing on public policy in the sphere of structuring and managing of subsidies for cultural activities. They should not be considered simply as public goods, distributed in accordance with long-term cultural and social needs, but as a partial compensation from copyright-based industries for their efforts in meeting the cultural and social needs of society: as a means to correct market failures in meeting these needs and as seed capital for new businesses. This presupposes significant growth in public-private partnerships in managing these subsidies.

The indices used for comparing copyright-based industries are interconnected, and behind the figures and classifications there are concrete problems in the development of each industry. Every company and organization is constantly solving problems related to increasing revenues by means of intensifying

production, improving quality, renewing equipment and technologies, expanding markets, etc. That is why current needs and critical points in the development of each of the sectors differ greatly. In some cases it can be lack of specialists (software, advertising), in others product promotion and services abroad (cinema and videos, visual arts), in others, technological renewal (book printing, photography) and so on. The preceding section of the report shows the current state in these sectors; there are extensive possibilities for setting up targeted public policies and for elaborating adequate strategies for their development.

With Bulgaria's accession to the EU it is expected that some of the problems outlined will be addressed by specific EU measures and policies. The tendency towards mobilizing cultural and creative resources in the EU with the aim of increasing their economic weight, encourages the EU Commission and the Member States to make more efficient use of structural funds and the Cohesion Fund for supporting small and medium-sized enterprises (SMEs) in the creative sector (where the copyright-based industries fail). A future survey on the potential of copyright-based industries in the six economic regions in Bulgaria would facilitate local SMEs in their future application under Operative Program measures (mainly OP for regional development, developing the competitiveness of the Bulgarian economy and for developing human resources).

Three Centers of Exceptionally High Growth – two Core and one Partial Copyright Industries

The Film industry: Taking inflation into account, the growth of the gross product for the period 2003-2005 is calculated at 62 percent, and that of value added at 197 percent. In the production of cinema and video films alone: in 2005 the gross output was almost BGN70 million, and value added BGN21 million – compared to BGN36.6 million and BGN5.8 million respectively for 2003, i.e., an increase of over three times of value added. As a comparison, the state subsidy for the Agency's National Film Centre increased from BGN3.9 million in 2003 to BGN6.5 million in 2005 (a growth of 60 percent at current prices), with no change in the subsidy for feature films and documentaries for Bulgarian National Television (about BGN6.5 million).

Software and databases: When inflation is taken into account this industry shows a 115 percent growth of value added and 91 percent of gross output, and we also observe significant growth in numbers employed – 34 percent (as compared to seven percent in the film industry).¹ Other activities on developing software alone, including development of original software according to the client's needs and web design, marked an even higher growth rate and compensated for the lower increase in the production of standard software. It is extremely important to note that growth in this sector occurred with four times higher real values: value added for 2005 here is BGN219 million with 11,809 employed (compared to BGN42.5 million and 2,182 employed in the film industry). With respect to the value added generated, the software industry is almost on a par with the leading sector: book publishing and printing, with higher labor productivity (2.2 times fewer people employed).

Architectural and Engineering Activities and Technical Consultations: For the period surveyed this sector shows an increase of 102 percent of value added and, with inflation taken into account, a 37 percent growth in gross output and a 16 percent growth in employment. In real values this is a small sector with a gross output of BGN50 million and BGN15.3 million value added, and it involves copyright (10 percent in the survey). The importance of this sector, however, should not be underestimated, because it has a lot of potential, which is not taken into account by national statistics due to the peculiarities of the building sector as a whole. According to experts, the share of the informal economy here is significantly higher than the 50 percent average for the country as a whole.

¹ In our opinion, the increase in film production is related to higher employment, but it is dependent on the specifics of this type of production, where a number of ancillary activities are contracted out (for instance, transport, prop making, hiring of premises, etc.) or are paid at an hourly rate (with or without a contract). This is not the case with software production.

These are the three main copyright-based industries where the survey observed the highest growth and that is why they are worth a more detailed study with the aim of clarifying the sources for this growth and the related specific needs and problems. From surveys of such rapidly-growing industries in other countries, we can suggest, even at this stage, that public policy here should mostly assist the efforts of the private sector by facilitating the introduction and enforcement of copyright legislation in support of the export potential of these industries and aiding the education and qualifications of people employed. Interviews with experts show that the transition from an entrepreneurial (small and medium-sized enterprise) to a corporate business is a serious issue and the lack of experienced corporate managers becomes an obstacle to further growth.

We should note that in the group of partial copyright industries there is a specific internal structure – different from the core and interdependent industries, where we observed several clearly delineated leaders significantly above the rest, the leader being architecture. We cannot talk about “champions” and “outsiders” as the sections differ widely one from the other. From a practical point of view this consists of efforts towards improving the general conditions for realization of the copyright element.

The Fight against Piracy and Protection of Intellectual Property – a Priority and Major Factor for Development of the Sector

Concurrent with specific measures in support of the rapid growth in book publishing, software, architecture, and furniture production, the relative homogeneity of the predominant part of the core and partial copyright industries favors development of common policy measures for their support. The positive trade balance in most of these industries is an additional argument in this respect. Possible strategies include improving general conditions for protection of copyright, whose importance is already widely-recognized among entrepreneurs. In more specific terms, it is necessary to introduce:

- Measures for improving the administrative capacity of the societies for managing collective rights, increasing their functions, stimulating transparency at every stage of their activities and optimizing their dynamic link with law enforcement authorities.
- Strengthening the implementation of intellectual property law, especially in the distribution of protected items and services via the Internet. This should include tightening controls on LANs and cable TV networks in the cities and towns.
- Improving competence in and knowledge of copyright among the representatives of the legal system in Bulgaria, especially among judges and prosecutors and adopting consistent good practices in pretrial procedures in cases connected with infringement of copyright and neighboring rights.
- Measures for overcoming the lack of competence on copyright and related issues on the part of judicial institutions, by means of consistent and systematic distribution of information and specialized training, as well as through the formation of specialized judicial teams with a thorough knowledge of copyright.
- A consistent policy for disseminating information on economic and moral loss brought about by piracy both in the economic sector and in the sphere of individual consumption, with the aim of creating intolerance towards piracy and infringement and supporting a media lobby in defense of copyright and neighboring rights.

The Need for a Long-term Strategy to Overcome the Consequences of De-Industrialization in Interdependent Copyright Industries

The results for the interdependent copyright industries show evidence of deindustrialization. Only 15 years ago most industries in this group had a clear export orientation. Currently, with the exception of paper production, production and export of equipment and consumer durables for the core copyright-based industries are exceptionally low and the needs of the internal market are met mainly by imports. Similar to other cases of deindustrialization this was connected to destruction of industrial assets, emigration of the most qualified researchers, engineers and technical personnel, or their reorientation to other activities such as trade and servicing of these products. Due to the efforts of entrepreneurs from the former state industries, Bulgaria has preserved small niche industries such as the production of packaging materials (CDs, DVDs, etc.) and other consumer durables, the production of optical and electronic components, etc.

With this in mind, public policies should encourage foreign investment in these sectors; for identifying and supporting innovative local entrepreneurs and supplying strategic investment for areas of significant growth potential, where the country has a specific competitive advantage (research, industrial and cultural traditions, access to markets, attractive production factors, etc.).¹

Strategies for Increasing the Export of Copyright and Other Intellectual Property Products

The survey provided results for one especially significant economic characteristic – royalties, i.e., copyright payments from abroad and to foreign countries. They enable us to obtain information about Bulgaria's place in the international exchange of intellectual property products and neighboring rights. The data provided by the Bulgarian National Bank, however, are not specific and do not allow for a more detailed analysis of the import and export of rights in the different categories of intellectual property. That is why it is important in the future that the monitoring system for this important indicator be improved and for the National Statistical Institute to collect information on these specific economic activities.

Urgent Need for Improvement of the National Classification and Registration System of Economic Activities

At present a number of important copyright industry-related economic activities are classified under large mixed codes combined with other, unrelated activities. This requires much additional effort and resources and at the same time makes it impossible to correctly evaluate the copyright industry's economic contribution. We recommend the establishment of a special task force comprising representatives of the National Statistical Institute, the Ministry of Culture, University of National and World Economy Intellectual Property Department and members of the Bulgarian WIPO research team to revise the Bulgarian version of NACE and suggest necessary changes.

Such changes would correspond to the rapid development of copyright-based industries in the country and would provide relevant information for practitioners and policy makers. We especially recommend changes in the 12 codes, described in *Appendix 4* of the present report, as well as the number of copyright industry-related codes in the Bulgarian Custom Tariff. Changes in the existing rules for classifying export-import data are also needed.

In general, the proposed improvements in providing Bulgarian economic statistics will help public policy in the field of copyright-based industries and will make a valuable contribution to current efforts to combat piracy, allowing for adequate measurement of the effects of anti-piracy campaigns.

¹ An example would be the production of holographically-protected materials. *DEMAX Print LTD, unique for Southeast Europe* (see http://www.demax-bg.com/holograms_bg.htm).

This process which was timely in view of the recommendations of the EU Council of Ministers (9021/07, May 2007), was made following research by the EU Economy of Culture, towards the European Commission to intensify the work of Eurostat on the definitions and methodologies for improving and harmonizing cultural statistics¹ in Member States. The Council appealed for the incorporation of a cultural element, including the cultural industries in the statistical program of the Union 2008-2012,² and with this in mind, cooperation of all institutions concerned is sought.

In this respect, the present survey can be viewed as a concrete step by Bulgaria towards EU targets – a survey with the aim of determining the contribution of copyright-based industries to the national economy, and thus to the fulfillment of the aims of the Lisbon strategy.

¹ Council Resolution of November 20, 1995 on the Promotion of Statistics on Culture and Economic Growth, OJ C 327, 7.12.1995, p. 1.

² Commission proposal for a Decision of the European Parliament and of the Council on the Community Statistical Programme 2008 to 2012, doc. 15536/06.

APPENDIX 1

Development of Legislation on Artistic Property in Bulgaria

Forms of Protection of Copyright and Neighboring Rights

1. Development of Legislation on Artistic Property in Bulgaria

In spite of the unified system for protection of the objects of artistic property every state has certain specific legislative rules relating to certain aspects: terms, rights, forms and ways of use of the works as well as the terms for protection and options for transfer, succession or renting copyright against remuneration. A brief review of the development of Bulgarian legislation in the field of copyright and neighboring rights will be made to present certain specifics in the regulations.

The first legislative rules on copyright referred to the rights of publishers and authors on conclusion of publishers' contracts. Publishers' contracts formed a separate part of Section Three in the Commercial Act of 1897. The first Bulgarian Copyright Act was adopted in 1921, published in State Gazette (SG), issue 86/1921, amended and supplemented in SG, issue 246/1936 and SG, issue 73/1939. It was subsequently abrogated, based on the Act on the Abrogation of All Acts Issued up to September 9, 1944, SG, issue 93/1951.

In 1951 the second Copyright Act was adopted, SG, issue 92/1951. Subsequent amendments and annexes to the Act were published in SG, issues 10/52, 55/1956, 35/1972, 30/1990, and 32/1990. The Copyright Act was in force until August 1, 1993.

Until 1972 copyright law was consistent with Soviet legislation in this field. The changes made in 1972 reflect European tendencies: the free use of works on radio and television was removed, and the term of protection of authors' works was extended to 50 years *post mortem auctoris*.

The Copyright Act of 1951 also regulated the issues of the author's remuneration. The first authors' tariffs were determined starting with those for writers. In 1971 a unified system including eight different tariffs for authors' work in any field of art and for the work of the performing artists was introduced by Decree of the Council of Ministers /DCM/ No 10/1971, SG, issues 31, 32, 33, 34/71. Two additional tariffs were adopted in the period 1975-1985 for performers in places of entertainment and advertising. The main rule during this period regarding remuneration prohibited payment for activities not specified in the tariffs or payment of higher amounts than those provided for. Exceptions were allowed based on the decision of the Ministry of Culture and the Ministry of Finance. The maximum amount was double the amount specified by the tariff.

The tariffs were abrogated after November 10, 1991 by force of DCM No 19 of 1991, SG, issue 16/1991. Their abrogation marks the start of free contractual relations in determining the amount of remuneration due. Outside the Decree's scope the so-called statutory licenses remained. In 1993 these were also removed by virtue of DCM No 160.

Until the adoption of the Copyright and Neighboring Rights Act in 1993 matters related to publishers' contracts, contracts for public presentation of artistic works and for creation and use of audio-visual works were regulated by the Contracts and Obligations Act.

In an international context, Bulgaria joined the Berne Convention for the Protection of Literary and Artistic Works in 1921. In 1974 it joined the Universal Copyright Convention comprising part of our internal legislation as of June 7, 1975.

At present, the following laws regulate the areas of artistic property and the related industries in Bulgaria:

- The Copyright and Neighboring Rights Act from 1993, SG, issue 56/29.06.1993, amended and supplemented SG, issue 99, amended. SG, issue 105/2005 effective from 10.01.2006, amended and supplemented. SG, issue 29, issue 30/2006;
- Administrative Regulations of the Production and Trade with Optical Disks, Matrixes and Other Bearers, Containing Copyright and Neighboring Rights Objects, SG, issue 74 of 13 September 2005. The law provides for the administrative rules and control over the production (including reproduction), distribution, import and export of optical disks, matrixes and other carriers of works protected by intellectual property and related rights. Special registration is provided for production of matrixes with record and the reproduction and distribution of optical disks and other carriers of works protected by intellectual property and related rights. According to this law producers of optical disks and matrixes are subject to a highly restrictive licensing regime.
- The Obligatory Depositing of Copies of Printed and Other Works, SG, issue 108/29.12.2000;
- Act on the Amendment and Supplementation of the Radio and Television Act, SG, issue 138/1998;
- The Telecommunications Act, SG, issue 88/2003;
- The Film Industry Act, SG, issue 105/2003;
- The Protection and Development of Culture Act (PDCA) SG, issue 50/01.06.1999;
- The Protection of Competition Act (PCA), published in SG, issue 52/98, amended. issue 101/05;
- The Radio and Television Act, SG, issue 138/199;
- The Crafts Act, SG, issue 42 of 27/2001.

2. Scope of Artistic Property – Types of Works regulated by Bulgarian Legislation

According to the national legislation regarding intellectual property, artistic property is considered as a separate sub-system. It covers creativity in the fields of literature, science and art. National legislation on artistic property does not use the terms 'literary and artistic works' but refers to objects of copyright law.

Objects covered by copyright law are works resulting from creativity expressed in any way and presented in any objective form. In order to receive legal protection, creativity should represent the creation of a work. Bulgarian legislation protects the author, while a presumption of authorship is made at the moment of creation of the work.

Copyright protection is granted on creations which are:

- the work of a certain author from the moment of creation or dissemination;
- the result of creative activity where creativity is expressed as the author's vision;
- works presented in any way, i.e., all known methods of expression by means of which the work can reach the consumer are permitted and relevant. The notion of objective form also includes material forms such as audio records, video records, books, etc.

Works are classified in three main groups as objects of copyright:

- *original works*: these are works resulting from spontaneous creativity such as literary works,¹ musical works, stage acts – drama, opera, mime, choreography, etc. films and other audio-visual works, works of art, works of applied art, design and handicrafts architectural works, photographic works, projects, maps, schemes, plans, etc., referring to architecture, city planning, geography, topography, museum works and in any field of science or technology; graphic design.
- *secondary works*: these are revised original works in which changes in the sound, means of expression and representations of objective form have been introduced. The authors of secondary works obtain a separate copyright over them, different from the copyright over the revised work such as translations, remakes, arrangements, adaptations and dramatizations. National legislation considers a remake of a folk tale as similar to a work of a certain author.
- *collective works*: these can be classified in two groups: the first includes collective works comprising different works with separate authors. The second group comprises separate works and materials. Materials are not considered as objects of copyright.²
- *part of a work*: this is also a separate object of copyright under national legislation. This part should be sufficient in volume to reveal the contents of the work.

Bulgarian copyright legislation aims to provide protection for works created and/or disseminated in an objective form and not the idea for such work.

3. Exclusive Right over Artistic Property

According to national legislation, copyright is an exclusive right of authors to use a work and to authorize its use by others. "Use" is understood as the realization of the economic rights of the author specified under the law.

¹ According to Bulgarian legislation in the field of copyright law, computer programs are considered literary works. Protection is provided for the sequence of zeros and ones. This is equal to the sequence of letters in a sentence.

² Bulgarian legislation provides for separate rules as regards databases although these are considered collective works, being a collection of materials only. The specific right is granted to the producer of the database for 15 years starting from the date of their creation.

It is an important principle that copyright arises **automatically** from the moment of creation of the work. An element in the nature of copyright is the existence of **originality** in the ways of expression and the objective form. The work should be **disseminated** at a place before an unlimited number of persons¹ and at a time chosen by the author.

Copyright protection is not based on registration. There is no statutory requirement for the author to use his/her work.² As regards copyright licensing, an agreement in which the author agrees to transfer all his/her rights for future works is considered void. Copyrights are licensed by means of contracts.

The main economic rights of the author which relate to the realization of the economic potential of the objects of copyright are as follows:

- **reproduction:** the direct or indirect reproduction of the work or any part thereof in any way and in any form, permanent or temporary including its saving in digital or electronic format.
- **distribution:** the sale, exchange, donation, rental and preservation in commercial quantities, offers for sale or rental of originals and copies of the work;³
- **public presentation or performance** of the work in recorded or live broadcasts;⁴
- **broadcasting the work by wireless means** – broadcasting by radio, television or underground transmission, installing a constant telecommunications network in a satellite, transmitting signals or carrying programs under the control and responsibility of the broadcasting organization to be directly or individually received by the public with or without the intermediary of an organization other than the broadcaster;
- **transmission and retransmission by cable** carried out by an organization, different from the broadcaster, upon condition that it possesses the right to broadcast the work by wireless and that the transmission is simultaneous with the broadcasting in a full and unchanged manner on the same territory. In this case no separate remuneration is due. If this right is given to an organization different from the broadcaster, authorization should only be given by a collective management organization;

¹ National legislation does not provide for a definition of the notion “an unlimited number of persons” – whether the unlimited number refers to the number of persons itself or to the free access to the place where the work is disseminated. So far there is no case law in the matter.

² The Copyright and Neighboring Rights Act protects unpublished works upon expiry of the copyright for a period of 25 years in favour of the person who disseminated the work.

³ *The right of distribution of the author is exhausted* after the initial sale or other transaction on the territory of the European Union by means of which ownership over the work or its copies is transferred by the author or with his/her consent for the territory on which the ownership is transferred except for the right for further renting. *Renting copyrights or neighboring rights* consists of authorization for use of the object for a certain period of time without direct or indirect economic use through publicly accessible places.

⁴ According to Bulgarian legislation, “coded signal” is any radio-television signal transmitted, broadcast, re-transmitted and re-broadcast by any technical measure, the features of which have been purposely changed to limit access for a certain territory only.

“*Technical protection measures*” means all technologies, devices, or parts thereof which in their normal use can prevent unauthorized activity by the title holder against an object of copyright or neighboring rights, although these devices can be controlled by the title holder by means of an access code, blurring or other change of the object or mechanism for control over the copy.

- **public display** of a work of art or of a photographic or analog work;
- **translation** of a work into a foreign language;
- **adaptation** – modification and changes to a work, as well as its use for the creation of another derivative work;
- **realization of an architectural project** – the construction or manufacture of the site for which the architectural project is designed;
- **offering of the work by wireless means, by cable or another technical device:** allowing access to the work by an unlimited number of persons at a place and time of their choice;
- **import and export** of copies of the work in commercial quantities irrespective of whether these copies have been legally produced.

4. Inheritance and Transfer of Copyright

An author is legally guaranteed a copyright to realize the economic potential of his/her work, alone or with others. This continues for 70 years after the author's death. According to Bulgarian legislation all economic rights and certain non-economic rights of the author can be inherited and transferred. Specific rules are provided for regarding the author's non-economic rights, such as: the right of the author to request authorship recognition and for his name or initials to be mentioned in relation with each use of the works which cannot be inherited or transferred. The heirs are unable to exercise the following rights until the expiry of the term of protection: modification of the work or cessation of use. The non-economic rights can be transferred only explicitly and in writing.

5. Limitations on the Copyright Exclusivity

National legislation provides for limitations in two main ways: first as regards the objects explicitly excluded from the scope of copyright protection, and, second, as actions admissible irrespective of the main principles of exclusivity of copyright.

1/ The following have no copyright protection under national legislation:

- *regulatory and individual acts of state authorities and their official translations.* According to national legislation unofficial translations are copyright protected. Official translations are considered to be those made by a translation agency recognized by the Council of Ministers;
- *ideas and concepts:* an idea can be protected by copyright only if presented in an objective form in any of the fields of science, literature or art;
- *works of folklore:* national legislation provides for indirect protection of works of folklore in cases of: adaptation based on an original folk tale; unpublished work or handicrafts;
- *news, facts, information and data:* protection is not provided due to the public's interest in access to information.

2/ Permitted uses of copyright objects

Free use of works is allowed only in the cases specified by law, where no remuneration is due to the author, or there is compensatory remuneration provided. The former allows use of the work without the author's permission in the public interest. The name of the author should be mentioned. This type of free use is not allowed for computer programs and should not be for commercial gain.

The free use of a work with payment of compensatory remuneration is allowed only in the following cases:

- Reproduction of printed works except for music materials – on paper or other similar carrier through reprography or by other similar means;
- Reproduction of works irrespective of the carrier by a natural person for his/her own use.¹

Limitations on free use are provided for computer programs and architectural works. Their use should not be for commercial purposes. The free use is consistent with the preservation of the technical means for protection of the work should such have been used.

6. Neighboring rights

Neighboring rights include two main groups of rights – economic and moral. **Economic rights** include various possibilities for the holders. **Moral rights** include the right to require placing or announcing in a suitable way the name, artistic sign or pseudonym of the rights holder for each and every type of use.

The right is applicable on the realization or dissemination of the record or performance and lasts for fifty years. Similar to copyright, neighboring rights are exclusive in nature. They can be transferred and inherited. However, moral rights cannot be inherited.

Holders of neighboring rights

- **phonogram producers:** neighboring rights protect the first record made by the phonogram producer. According to the law he/she is a natural or legal person who has organized and provided the resources for the first recording.
- **film producers:** the film producer enjoys neighboring rights protection for the original film and any copies. He/she is a natural or legal person having realized the initial record of the film or audiovisual work;
- **performing artists:** neighboring rights cover the artist's performance. Performers are the persons singing, reciting, dancing or performing with puppets, in music halls or in circuses;
- **radio-television organizations** have neighboring rights over a program when it is created separately by the organization. Protection extends also to the signals transmitting the program.

¹ National legislation lacks a forwarding or descriptive provision providing for a definition of 'personal use' and the number of copies permitted thereby.

7. Forms of Legal Protection of Copyright and Neighboring Rights. Competent Institutions in the Field of Copyright and Neighboring Rights in Bulgaria

- **Administrative protection** is applied for: reproduction, distribution of video and audio carriers of recorded works, organization of public display of audiovisual works; providing audio or video recording services to others for gain; organization of public displays of live or recorded performances; broadcasting by wireless or cable of works or radio-television programs; publication or distribution of already published works; reproduction and distribution of computer programs, photographic works, designs, handicrafts; failure to pay compensation; violation of the rights of a database producer.

- **Civil protection** is available for any person who has legally acquired the exclusive right to use a work and thus has the right to one of the following actions: compensation for damages caused through violation of copyright and neighboring rights; restraining the illegal use of objects of copyright and neighboring rights and data bases; seizure and destroying illegal copies of any work, record or data base as well as matrixes, clichés and other reproducing equipment; seizure and disabling copying and reproducing equipment used exclusively for committing violations; establishment of the holder of the violated rights; illegal benefit and action for ownership over material, carrier of the protected object of artistic property. Civil protection also provides for security measures through initiation of proceedings and imposition of border controls. A specific feature of our legal system is in continuity of action: customs proceedings – customs seizure > imposition of security measures > civil claims.

- **Criminal protection** is provided to protect against danger caused to the public. National legislation in the field of artistic property criminalizes: counterfeiting, falsification of copyright and neighboring rights containing the name of the author; plagiarism – presenting or publishing another's work or parts thereof as one's own without mention of the true author; forced joint authorship – abusing one's official position by recording as joint author a non-participant in the creation of the work. Amendments to the Criminal Code of 2006 criminalized the stockpiling of pirated products or illegally-acquired or produced matrixes as well as their sale or offer for sale.

Due to the changes in the social and political situation in Bulgaria since 1989, it was necessary to adopt the new Copyright and Neighboring Rights Act in 1993. The old law was created under a system whereby a person's rights were subordinate to the state. Copyright fell within the sphere of private legal relations. Despite the cover provided by this law, Bulgarian authors remember how the old law was applied and how much higher was their remuneration. Before 1993, the State Copyright Agency protected authors' rights and was connected with several state-owned enterprises and departments which used the works.

The Copyright Agency, which had a monopoly, concluded contracts only with Bulgarian National Radio and Television for broadcasting, and two organizations covering public performances and food and entertainment establishments, with one company producing gramophone records, and several state-owned publishing houses and cinema studios. These organizations received funds from the state budget for payment of copyright to the authors through the Agency and the relationship between author and user was clear. In addition, there were stated rates for remuneration, obligatory for both parties. However an author was not autonomous although he/she was better remunerated.

The situation now is different – authors' works are used by hundreds of private legal entities – radio and television stations, cable operators, entertainment establishments, concert organizers, private publishing

houses, producers of audio recordings and film producers. There is no doubt that the situation and the relationships between authors and users are more complex as, in all these areas, the authors or the collective management societies representing them need to be in contact with each user individually, to ensure payment for the use of the works, the sum due being that set out in the rates of the organization. These rates are not approved by a government body and it is difficult to convince users to pay the sum in question.

It is obvious that complete freedom of negotiation between the authors and their representatives on the one hand, and the users on the other, granted to them under the Copyright and Neighboring Rights Act is ahead of the socio-economic development of the country and there is a discrepancy between the requirements of the law and reality. The application of the law is significantly hampered and the organizations of authors and owners of neighboring rights are at a disadvantage as they are economically weaker. The intellectual level of the majority of the users is low and they cannot or do not want to realize that the use of an intellectual product must be in exchange for payment and that permission of the rights owner must be obtained in advance.

That is why the role of the state is significant for application of the law. An Intellectual Property Protection Council within the Ministry of Culture was set up in 2006, uniting the representatives of all stakeholder institutions and private businesses. At the monthly meetings of the Council, legislative amendments in the area of intellectual property are discussed, prepared and tabled with the National Assembly and complaints and proposals from non-governmental organizations and copyright collective management societies are heard. The Council is the engine for implementing legislative changes in the area of intellectual property. It consolidates the activities of law enforcement bodies and also draws up contacts between government institutions and private businesses with the collective management societies. The Council also plays the role of mediator in any dispute between representatives of the owners of rights and users and supports societies in defending their legal demands for payment of remuneration.

Given that the public has not yet understood the problems of intellectual property protection, the Ministry of Culture organized a mass campaign in 2006 to raise awareness. This was popular and discussions started which achieved the purpose of the campaign, namely that protection of copyright and neighboring rights would no longer be anonymous. The campaign will continue throughout this year and the target groups identified include young people and journalists – the former as the most prolific Internet users and the latter who pass the information to the public.

In the past few years, government institutions have improved the level of their administrative capacity by increasing the number of staff in their law enforcement units, by holding seminars and conferences and conducting practical training on the application of the respective law. The state, in the face of the relevant institutions in the area – the Ministry of Culture and the Ministry of the Interior, has intensified its pressures on those who infringed intellectual property rights in the past by launching campaigns to confiscate pirated products, impose fines and sanctions on offenders in the field of cable retransmission, radio and television broadcasting and unauthorized use of entertainment and business software. Very important in this process has been the close cooperation between the Ministry of Culture, the Ministry of the Interior and the Prosecutor's office.

Three conclusions can be drawn:

1. In the past two years, the government has demonstrated a political will to deal with the problems neighboring to the protection of intellectual property. Experience has shown that the political will of those in power combined with adequate legislation and effective law enforcement is the only way to reduce piracy to the levels in the European Union.
2. The application of the Copyright and Neighboring Rights Act in Bulgaria was based on the old law and many positive practices already applied in the field of copyright collective management, conclusions of agreements for protection of authors' rights between organizations and users, distribution of remuneration, conclusion of reciprocal agreements with foreign companies with a view to mutual protection of authors' rights and relationships between writers and publishers, producers of audio recordings and producers of audiovisual works and authors have been retained and developed further.
3. In spite of the seemingly unfavorable social situation in the country with respect to protection of copyright and neighboring rights, the revenue from collective management societies and of the authors themselves has been increasing year on year and the number of regular users has increased as a whole as have the sums paid under individual agreements. The public attitude to the problems of protection of intellectual property rights is slowly changing but, unfortunately, state interference in the provisions for these legal relations is still significant. The further development of our young democracy will bring about a positive change in public attitudes to the problems of intellectual property, assisted by the public information campaigns from the Ministry of Culture.

8. International Copyright and Neighboring Rights Legislation

International and European Conventions

- The Convention for the Protection of Literary and Artistic Works – The Berne Convention
Ratified by Bulgarian State Council Decree No. 1389 on August 29, 1974 – State Gazette No. 53/ July 6, 1974 г., the Paris Edition of the Berne Convention was ratified by Bulgarian State Council Decree No. 887 from September 18, 1980 - State Gazette No. 76/ September 30, 1980.
- The Universal Copyright Convention
Ratified by Bulgarian State Council Decree No. 1 from December 26, 1974 – State Gazette No. 5/ January 3, 1975 г. Published by the Ministry of Culture and Tourism in State Gazette No. 44/ May 27, 2007, applied in Bulgaria since June 7, 1975.
- The Convention Establishing the World Intellectual Property Organization (WIPO).
Ratified by Bulgarian Parliament Presidium Decree No. 3 from January 8, 1970 – State Gazette No. 5/ January 16, 1970. Changes ratified by Bulgarian State Council Decree No. 1887 from September 18, 1980 – State Gazette No. 76/ September 30, 1980, applied in Bulgaria since June, 1984.
- The Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations
Ratified by 37th Bulgarian Parliament Law from April 19, 1995 – State Gazette No. 39/ 1995. Published by Ministry of Culture in State Gazette No. 111/ December 22, 1995, applied in Bulgaria since August 31, 1995.

- The Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms
Ratified by 37th Bulgarian Parliament Law from April 19, 1995 - State Gazette No. 39/ 1995.
Published by Ministry of Culture in State Gazette No. 111/ December 22, 1995, applied in Bulgaria since September 6, 1995.
- The Convention for the Protection of the Architectural Heritage of Europe (Granada 1985)
Ratified by Bulgarian Parliament January 25, 1991, – State Gazette No. 13/ February 15, 1991, applied in Bulgaria since May 1, 1991;
- The European Convention on Cinematographic Co-production (1992)
Ratified by 39th Bulgarian Parliament Law from April 1, 2004 - State Gazette No. 30/ April 13, 2004. Published by the Ministry of Culture in State Gazette No. 86/ October 1, 2004, applied in Bulgaria since August 1, 2004.
- The European Convention for Trans-Borders Television (1989)
Ratified by 36th Bulgarian Parliament Law - State Gazette No. 117/ December 10, 1993, applied in Bulgaria since May 1, 1993. The Record of Change and Complement ratified by Bulgarian Parliament law - State Gazette No. 7/ January 25, 2000, applied in Bulgaria since May 1, 2002.
- The European Convention for Audio and Visual Heritage and Recording (2001), signed on November 8, 2001, not applied in Bulgaria.
- The TRIPS Agreement on Trade-Related Aspects of Intellectual Property Rights, State Gazette No. 93/1996
- The WIPO Copyright Treaty - State Gazette No. 7/ 2001
- The WIPO Performances and Phonograms Treaty - State Gazette No. 7/ 2001.

European Union Directives

- European Directive 91/250/EC concerning the legal protection of software;
- European Directive 96/9/EC concerning the legal protection of databases;
- European Directive 93/83/EEC concerning coordination of some rules referring to copyright and neighboring rights, applicable to broadcasting via satellite and cable;
- European Directive 92/100/EEC concerning rental rights, as well as some rights related to copyright in the field of intellectual property.
- European Directive 93/98/EC on harmonizing the terms of protection of copyright and neighboring rights;
- European Directive 2001/29/EC on harmonizing some aspects of copyright and neighboring rights in the information society;

- European Directive 2001/84/EO concerning the right of remuneration of the author in resale of fine arts works
- European Directive Télévision sans frontières, 89/552/EO, changed on June 30, 1997 by Directive 97/36/EC.

APPENDIX 2

Custom Tariff Codes, related to Copyright-Based Industries

1. Polygraphy

BG code	Description
4901	Printed books, brochures, leaflets and similar printed matter, whether or not in single sheets
4902	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material
4903	Children's picture, drawing or colouring books
4904	Music, printed or in manuscript, whether or not bound or illustrated
4905	Maps and hydrographic or similar charts of all kinds, including atlases, wall maps, topographical plans and globes, printed
4906	Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; handwritten texts; photographic reproductions on sensitised paper and carbon copies of the foregoing
4907	Unused postage, revenue or similar stamps of current or new issue in the country in which they have, or will have, a recognised face value; stamp-impressed paper; banknotes; cheque forms; stock, share or bond certificates and similar documents of title
4908	Transfers (decalcomanias)
4909	Printed or illustrated postcards; printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes or trimmings
4910	Calendars of any kind, printed, including calendar blocks
4911	Other printed matter, including printed pictures and photographs

2. Knitwear

BG code	Description
6101	Men's or boys' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading No 6103
6102	Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading 6104
6103	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted
6104	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted
6105	Men's or boys' shirts, knitted or crocheted
6106	Women's or girls' blouses, shirts and shirt-blouses, knitted or crocheted
6107	Men's or boys' underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles, knitted or crocheted
6108	Women's or girls' slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles, knitted or crocheted
6109	T-shirts, singlets and other vests, knitted or crocheted
6110	Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted
6111	Babies' garments and clothing accessories, knitted or crocheted
6112	Track suits, ski suits and swimwear, knitted or crocheted
6113	Garments, made-up of knitted or crocheted fabrics of heading No 5903, 5906, or 5907
6114	Other garments, knitted or crocheted
6115	Panty hose, tights, stockings, socks and other hosiery, including stockings for varicose veins and footwear without applied soles, knitted or crocheted
6116	Gloves, mittens and mitts, knitted or crocheted
6117	Other made-up clothing accessories, knitted or crocheted; knitted or crocheted parts of garments or of clothing accessories

3. Clothing

BG code	Description
6201	Men's or boys' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading No 6203
6202	Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading No 6204
6203	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear)
6204	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear)
6205	Men's or boys' shirts
6206	Women's or girls' blouses, shirts and shirt-blouses
6207	Men's or boys' singlets and other vests, underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles
6208	Women's or girls' singlets and other vests, slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles
6209	Babies' garments and clothing accessories
6210	Garments, made-up of fabrics of heading 5602, 5603, 5903, 5906 or 5907
6211	Track suits, ski suits and swimwear; other garments
6212	Brassières, girdles, corsets, braces, suspenders, garters and similar articles and parts thereof, whether or not knitted or crocheted
6214	Shawls, scarves, mufflers, mantillas, veils and the like
6215	Ties, bow ties and cravats
6216	Gloves, mittens and mitts
6217	Other made-up clothing accessories; parts of garments or of clothing accessories, other than those of heading 6212

4. Shoes

BG code	Description
6401	Waterproof footwear with outer soles and uppers of rubber or of plastics, the uppers of which are neither fixed to the sole nor assembled by stitching, riveting, nailing, screwing, plugging or similar processes
6402	Other footwear with outer soles and uppers of rubber or plastics
6403	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather
6404	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials
6405	Other footwear
6406	Parts of footwear (including uppers whether or not attached to soles other than outer soles); removable insoles, heel cushions and similar articles; gaiters, leggings and similar articles, and parts thereof

5. Ceramics and China

BG code	Description
6910	Ceramic sinks, wash basins, wash basin pedestals, baths, bidets, water closet pans, flushing cisterns, urinals and similar sanitary fixtures
6911	Tableware, kitchenware, other household articles and toilet articles, of porcelain or china
6912 00	Ceramic tableware, kitchenware, other household articles and toilet articles, other than of porcelain or china
6913	Statuettes and other ornamental ceramic articles
6914	Other ceramic articles

6. Furniture

BG code	Description
9401	Seats (other than those of heading 9402), whether or not convertible into beds, and parts thereof
9402	Medical, surgical, dental or veterinary furniture (for example, operating tables, examination tables, hospital beds with mechanical fittings, dentists' chairs); barbers' chairs and similar chairs, having rotating as well as both reclining and elevating movements; parts of the foregoing articles
9403	Other furniture and parts thereof
9404	Mattress supports; articles of bedding and similar furnishing (for example, mattresses, quilts, eiderdowns, cushions, pouffes and pillows) fitted with springs or stuffed or internally fitted with any material or of cellular rubber or plastics, whether or not covered
9405	Lamps and lighting fittings including searchlights and spotlights and parts thereof, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like, having a permanently fixed light source, and parts thereof not elsewhere specified or included
9406 00	Prefabricated buildings

7. Toys and Games

BG code	Description
9501	Wheeled toys designed to be ridden by children (for example, tricycles, scooters, pedal cars); dolls' carriages
9502	Dolls representing only human beings
9503	Other toys; reduced-size ('scale') models and similar recreational models, working or not; puzzles of all kinds
9504	Articles for funfair, table or parlour games, including pinball machines, billiards, special tables for casino games and automatic bowling alley equipment
9505	Festive, carnival or other entertainment articles, including conjuring tricks and novelty jokes
9508	Roundabouts, swings, shooting galleries and other fairground amusements; travelling circuses and travelling menageries; travelling theatres

8. Glass

BG code	Description
7001	Cullet and other waste and scrap of glass; glass in the mass
7002	Glass in balls (other than microspheres of heading No 7018), rods or tubes, unworked
7003	Cast glass and rolled glass, in sheets or profiles, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked
7004	Drawn glass and blown glass, in sheets, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked
7005	Float glass and surface ground or polished glass, in sheets, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked
7006	Glass of heading 7003, 7004 or 7005, bent, edge-worked, engraved, drilled, enamelled or otherwise worked, but not framed or fitted with other materials
7007	Safety glass, consisting of toughened (tempered) or laminated glass
7008	Multiple-walled insulating units of glass
7009	Glass mirrors, whether or not framed, including rear-view mirrors
7010	Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass
7011	Glass envelopes (including bulbs and tubes), open, and glass parts thereof, without fittings, for electric lamps, cathode-ray tubes or the like
7012	Glass inners for vacuum flasks or for other vacuum vessels
7013	Glassware of a kind used for table, kitchen, toilet, office, indoor decoration or similar purposes (other than that of heading No 7010 or 7018)
7014	Signalling glassware and optical elements of glass (other than those of heading No 7015), not optically worked
7015	Clock or watch glasses and similar glasses, glasses for non-corrective or corrective spectacles, curved, bent, hollowed or the like, not optically worked; hollow glass spheres and their segments, for the manufacture of such glasses
7016	Paving blocks, slabs, bricks, squares, tiles and other articles of pressed or moulded glass, whether or not wired, of a kind used for building or construction purposes; glass cubes and other glass smallwares, whether or not on a backing, for mosaics or similar decorative purposes; leaded lights and the like; multicellular or foam glass in blocks, panels, plates, shells or similar forms
7017	Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated
7018	Glass beads, imitation pearls, imitation precious or semi-precious stones and similar glass smallwares, and articles thereof other than imitation jewellery; glass eyes other than prosthetic articles; statuettes and other ornaments of lamp-worked glass, other than imitation jewellery; glass microspheres not exceeding 1 mm in diameter
7019	Glass fibres (including glass wool) and articles thereof (for example, yarn, woven fabrics)
7020	Other articles of glass

Radio and Television Sets, Sound Recording and Reproducing Devices, Computers and Equipment

BG code	Description
8517	Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets and telecommunication apparatus for carrier-current line systems or for digital line systems; videophones
8518	Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets
8519	Turntables (record-decks), record-players, cassette-players and other sound reproducing apparatus, not incorporating a sound recording device
8520	Magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device
8522	Parts and accessories suitable for use solely or principally with the apparatus of headings 8519 to 8521
8523	Prepared unrecorded media for sound recording or similar recording of other phenomena, other than products of Chapter 37
8524	Records, tapes and other recorded media for sound or other similarly recorded phenomena, including matrices and masters for the production of records, but excluding products of Chapter 37
8525	Transmission apparatus for radio-telephony, radio-telegraphy, radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras; still image video cameras and other video camera recorders; digital cameras
8527	Reception apparatus for radio-telephony, radio-telegraphy or radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock
8528	Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus; video monitors and video projectors
8529	Parts suitable for use solely or principally with the apparatus of headings 8525 to 8528
8541	Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made-up into panels; light-emitting diodes; mounted piezo-electric crystals
8542	Electronic integrated circuits and microassemblies
8544	Insulated (including enamelled or anodised) wire, cable (including coaxial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made-up of individually sheathed fibres; whether or not assembled with electric conductors or fitted with connectors

10. Photography and Cinematography

BG code	Description
9001	Optical fibres and optical fibre bundles; optical fibre cables other than those of heading No 8544; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked
9002	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked
9006	Photographic (other than cinematographic) cameras; photographic flashlight apparatus and flashbulbs other than discharge lamps of heading 8539
9007	Cinematographic cameras and projectors, whether or not incorporating sound recording or reproducing apparatus
9008	Image projectors, other than cinematographic; photographic (other than cinematographic) enlargers and reducers
9009	Photocopying apparatus incorporating an optical system or of the contact type and thermo-copying apparatus
9010	Apparatus and equipment for photographic (including cinematographic) laboratories (including apparatus for the projection or drawing of circuit patterns on sensitised semi-conductor materials), not specified or included elsewhere in this chapter, negatoscopes; projection screens

11. Musical Instruments

BG code	Description
9201	Pianos, including automatic pianos; harpsichords and other keyboard stringed instruments
9202	Other string musical instruments (for example, guitars, violins, harps)
9203	Keyboard pipe organs; harmoniums and similar keyboard instruments with free metal reeds
9204	Accordions and similar instruments; mouth organs
9205	Other wind musical instruments (for example, clarinets, trumpets, bagpipes)
9206	Percussion musical instruments (for example, drums, xylophones, cymbals, castanets, maracas)
9207	Musical instruments, the sound of which is produced, or must be amplified, electrically (for example, organs, guitars, accordions)
9208	Musical boxes, fairground organs, mechanical street organs, mechanical singing birds, musical saws and other musical instruments not falling within any other heading of this chapter; decoy calls of all kinds; whistles, call horns and other mouth-blown sound signalling instruments
9209	Parts (for example, mechanisms for musical boxes) and accessories (for example, cards, discs and rolls for mechanical instruments) of musical instruments; metronomes, tuning forks and pitch pipes of all kinds

12. Art

BG code	Description
9701	Paintings, drawings and pastels, executed entirely by hand, other than drawings of heading 4906 and other than hand-painted or hand-decorated manufactured articles; collages and similar decorative plaques
9702	Original engravings, prints and lithographs
9703	Original sculptures and statuary, in any material
9704	Postage or revenue stamps, stamp-postmarks, first-day covers, postal stationery (stamped paper), and the like, used or unused, other than those of heading 4907
9705	Collections and collectors' pieces of zoological, botanical, mineralogical, anatomical, historical, archaeological, palaeontological, ethnographic or numismatic interest
9706	Antiques of an age exceeding one hundred years

13. Jewelry and Precious Metals

BG code	Description
7101	Pearls, natural or cultured, whether or not worked or graded but not strung, mounted or set; pearls, natural or cultured, temporarily strung for convenience of transport
7102	Diamonds, whether or not worked, but not mounted or set
7103	Precious stones (other than diamonds) and semi-precious stones, whether or not worked or graded but not strung, mounted or set; ungraded precious stones (other than diamonds) and semi-precious stones, temporarily strung for convenience of transport
7104	Synthetic or reconstructed precious or semi-precious stones, whether or not worked or graded but not strung, mounted or set; ungraded synthetic or reconstructed precious or semi-precious stones, temporarily strung for convenience of transport
7106	Silver (including silver plated with gold or platinum), unwrought or in semi-manufactured forms, or in powder form
7107	Base metals clad with silver, not further worked than semi-manufactured
7108	Gold (including gold plated with platinum), unwrought or in semi-manufactured forms, or in powder form
7109	Base metals or silver, clad with gold, not further worked than semi-manufactured
7110	Platinum, unwrought or in semi-manufactured forms, or in powder form
7111	Base metals, silver or gold, clad with platinum, not further worked than semi-manufactured
7113	Articles of jewellery and parts thereof, of precious metal or of metal clad with precious metal
7114	Articles of goldsmiths' or silversmiths' wares and parts thereof, of precious metal or of metal clad with precious metal
7116	Articles of natural or cultured pearls, precious or semi-precious stones (natural, synthetic or reconstructed)
7117	Imitation jewellery
7118	Coins

APPENDIX 3

Final List of Codes of Bulgarian National Classification of Economic Activities - NCEA-2003 (Corresponding to the WIPO Classification of NACE Codes for Copyright-Based Industries)¹

I. Core Copyright Industries

- | | | |
|------------------------------------|--------------------------------------|--|
| 1. Press and Literature | 22.11 | Publishing books, brochures and other publications |
| | 22.12 | Publishing newspapers |
| | 22.13 | Publishing journals and other periodicals |
| | 22.15 | Other publishing activities |
| | 22.21 | Printing newspapers |
| | 22.22 | Printing other edited materials and printing products |
| | 22.23 | Binding printed materials |
| | 22.24 | Pre-press (pre-printing) |
| | 22.25 | Service activities related to printing |
| | 52.47 | Retails of books, newspapers and office materials |
| | 52.50 | Retail of used goods in shops (retail of second-hand books) |
| | 74.87 | Other business services |
| | 92.31 | Artistic and creative activities |
| | 92.40 | Activities of new agencies |
| 92.51 | Activities of libraries and archives | |
| 2. Music, Theater, Opera | 22.14 | Publishing of audio recordings |
| | 22.31 | Reproduction of audio recordings |
| | 51.43 | Wholesale of home electric appliances and lighting devices, radio and television goods |
| | 52.45 | Retail of home electric appliances and lighting devices, radio and television goods |
| | 74.87 | Other business services |
| | 92.31 | Artistic and creative activities |
| | 92.32 | Exploitation of theater buildings, music and concerts halls and studios |
| | 92.34 | Other recreational activities |
| 3. Motion Picture and Video | 22.32 | Preproduction of video recordings |
| | 51.43 | Wholesale of home electric appliances and lighting devices, radio and television goods |
| | 74.87 | Other business services |
| | 92.11 | Production of motion pictures and video |

¹ Codes in red are included in more than one group of CI industries. Their values are shared between these industries with a corresponding weight coefficient (see *Appendix 4*).

	92.12 Distribution of motion pictures and video
	92.13 Motion picture projection
	92.31 Artistic and creative activities
4. Radio and TV	92.20 Radio and television activities
5. Photography	74.81 Photographic activities
6. Software and Databases	22.33 Reproduction of computer recordings
	72.21 Publishing of standard software
	72.22 Other activities in software development
	72.30 Database activities
	72.40 Other activities related to databases
	72.60 Other activities in the field of computer technologies
7. Visual and Graphic Arts	74.87 Other business services
	92.31 Artistic and creative activities
	92.52 Activities of museums and galleries, activities in preservation of cultural heritage
8. Advertising Services	74.40 Advertising
9. Copyright Collecting Societies	74.87 Other business services

II. Interdependent Industries

1. TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic gaming equipment and other similar equipment	32.30 Manufacture of television and radio receivers, sound and video recording or reproducing apparatus
	51.43 Wholesale of home electrical appliances and lighting devices, radio and television goods
	52.45 Retail of home electrical appliances and lighting devices, radio and television goods
2. Computers and equipment (including photocopiers)	30.02 Manufacture of accounting and computing machinery
	51.84 Wholesale of accounting and computing machinery, peripherals and software
	51.85 Wholesale of other office equipment, office machinery and office furniture
	71.33 Renting office, accounting and computing machinery, without operators
3. Musical instruments	36.30 Manufacture of musical instruments
	52.45 Retail of home electric appliances and lighting devices, radio and television goods
4. Photographic and cinematographic instruments	33.40 Manufacture of optical instruments and photographic equipment

- 5. Blank recording material**
 - 24.64 Manufacture of photographic chemical materials
 - 24.65 Manufacture of blank recording material
- 6. Paper**
 - 21.11 Manufacture of pulp
 - 21.12 Manufacture of paper and paperboard
 - 24.30 Manufacture of dyes, varnish and similar materials, printing ink and paste
 - 29.55 Manufacture of machinery for pulp, paper, paperboard and other items
 - 51.56 Wholesale of other non-agricultural intermediate products

III. Partial Copyright Industries

- 1. Apparel, textiles and footwear**
 - 17.60 Manufacture of knitted fabrics
 - 17.71 Manufacture of socks and tights
 - 17.72 Manufacture of classical pullovers, waistcoat and similar items
 - 18.10 Manufacture of leather clothes
 - 18.21 Manufacture of working clothes
 - 18.22 Manufacture of wearing apparel, without working clothes
 - 18.23 Manufacture of shirts, blouses and other underwear
 - 18.24 Manufacture of other clothes and accessories
 - 19.30 Manufacture of footwear
 - 29.54 Manufacture of machinery for textile, apparel, leather and leather clothes
 - 51.42 Wholesale of apparel and footwear
 - 52.41 Retail of textile
 - 52.42 Manufacture of apparel and other cloths
 - 52.43 Retail of footwear and leather items
- 2. Jewelry and coins**
 - 36.21 Cutting coins
 - 36.22 Manufacture of jewelry and related articles, made of precious metal and stones
 - 36.61 Manufacture of imitation jewelry
- 3. Other crafts**
 - 36.63 Other manufacture
- 4. Furniture**
 - 36.11 Manufacture of chairs and seats
 - 36.12 Manufacture of office furniture (without chairs)
 - 36.13 Manufacture of kitchen furniture (without chairs)
 - 36.14 Manufacture of other furniture (without chairs)
 - 36.15 Manufacture of spring-beds and matrices kitchen furniture (without chairs)
 - 51.85 Wholesale of other office equipment, office machinery and office furniture
 - 52.44 Retail of furniture, lighting devices and household goods, not falling under other codes
- 5. Household goods, china and glass**
 - 20.51 Manufacture of other wooden items
 - 20.52 Manufacture of goods of cork, knitted and crocheted fabrics and articles

- 26.12 Forming and treatment of flat glass
- 26.13 Manufacture of glass household goods and packing
- 26.14 Manufacture of glass fibers
- 26.15 Manufacture of other glass products, including for technical use
- 26.21 Manufacture of china and ceramic household and decorative goods
- 26.22 Manufacture of sanitary ceramics
- 26.23 Manufacture of ceramic insulators
- 26.24 Manufacture of ceramic items for technical use
- 26.25 Manufacture of other ceramic goods
- 26.26 Manufacture of fireproof ceramic goods
- 28.75 Manufacture of metal goods, not falling under other codes
- 31.50 Manufacture of lamps and lighting devices
- 52.44 Retail of furniture, lighting devices and household goods, not falling under other codes

- 6. Wall coverings and carpets**
 - 17.51 Manufacture of carpets and rugs
 - 21.24 Manufacture of wall covering
 - 21.25 Manufacture of other paper and paperboard goods

- 7. Toys and games**
 - 36.50 Manufacture of games and toys

- 8. Architecture, engineering, surveying**
 - 74.20 Architecture, engineering, surveying

- 9. Museums**
 - 52.50 Retail of second-hand goods in shops (retail of antiques)
 - 92.52 Activities of museums and galleries, activities in preservation of cultural heritage

IV. Non-dedicated Support Industries

- 1. General wholesale and retail**
 - 51.11 Commission trade with agriculture goods, animals, raw materials for textile and semi-manufactured goods
 - 51.12 Commission trade with fuel, ores, metals and chemical products
 - 51.13 Commission trade with wood and other building materials
 - 51.14 Commission trade with machinery, industrial equipment, boats, ships and airplanes
 - 51.15 Commission trade with furniture, household goods, iron items
 - 51.16 Commission trade with textiles, apparel, footwear and leather items
 - 51.17 Commission trade with food, drinks and tobacco goods
 - 51.18 Commission trade with other goods
 - 51.19 Commission trade with different goods
 - 51.41 Wholesale of textiles
 - 51.43 Wholesale of home electric appliances and lighting devices, radio and television goods
 - 51.44 Wholesale of china, glass, wall coverings and detergents
 - 51.45 Wholesale of perfumery and cosmetics
 - 51.46 Wholesale of pharmaceutical, medical and orthopedic goods
 - 51.47 Wholesale of other household goods
 - 51.81 Wholesale of industrial machinery and their components

- 51.82 Wholesale of machinery for mining and construction
- 51.83 Wholesale of machinery for textile, apparel, footwear and leather manufacture
- 51.86 Wholesale of electronic components and equipment
- 51.87 Wholesale of other machinery and equipment in manufacturing, trade, navigation and transportation
- 51.88 Wholesale of tractors and other agricultural machinery and their components
- 51.90 Wholesale of other goods
- 52.11 Retail in non-specialized shops of food, drinks and tobacco
- 52.12 Retail in non-specialized shops of diverse items
- 52.45 Retail of home electric appliances and lighting devices, radio and television goods
- 52.48 Retail in specialized shops with other goods
- 52.50 Retail of used goods in shops
- 52.61 Retail of firms, executing orders by mail
- 52.62 Retail of goods at open markets
- 52.63 Retail of other goods not sold in shops

2. General transportation

- 60.10 Transport by rail
- 60.21 Other scheduled land transportation
- 60.22 Taxi land transport of passengers
- 60.23 Other non-scheduled land transport
- 60.24 Cargo transport with trucks
- 61.10 Sea and coastal transport
- 61.20 River transport
- 62.10 Scheduled air transport
- 62.20 Non-scheduled air transport
- 63.11 Cargo handling
- 63.12 Storage and warehousing
- 63.21 Other supporting transport activities
- 63.22 Other supporting activities in water transport
- 63.23 Other supporting activities in air transport
- 63.30 Activities of travel agencies and tour operators, tourist assistance activities
- 63.40 Activities of other transport agencies
- 64.11 National postal activities
- 64.12 Courier activities other than national postal activities

3. Telephony and Internet

- 64.20 Telephony and Internet

IV. Non-attributable Group

- 51.47 Wholesale of other household goods
- 52.48 Retail in specialised shops with other goods
- 71.40 Renting personal and household goods

APPENDIX 4

Assessment of the Relative Weight of Copyright Legal Economic Activities in Undifferentiated Codes under the Bulgarian Version of NACE (National Classification of Economic Activities, NCEA-2003)

This section contains a description of the methodology for determining the relative weight of activities related to copyright and neighboring rights in the mixed or undifferentiated codes under NCEA-2003 – in which the relevant economic activities have been mixed with other activities, unrelated to copyright. Twelve such codes are included in the survey. Undifferentiated codes do not allow for a precise specification of the economic contribution of new and dynamically-developing sectors such as those based on copyright and neighboring rights. The research team put significant effort into raising the necessary quantitative information, expert assessment and other data which will provide for a more precise evaluation of the share of copyright-related economic activities under these mixed codes. The methodology used in weighting the data by each code is described below.

1. Weighting and Distribution of Code 92.31 – Services of Artistic and Creative Work

The activities under this code fall under four major copyright laws - publishing and printing; music, theater and opera, film and video production, and visual and graphic arts. The simple proportional distribution according to the summarized data of these major industries results in serious distortions of the structure of the major code indicators, which we judge indirectly.

Table 1. Proportional Distribution of 92.31 based on all Industries

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
I.1 Publishing and Printing	181	471	11 890	3779	211	531	17 754	6586
I.2 Music, Theater, Opera	2	7	194	105	3	9	453	271
I.3 Film and Video Production	23	51	1764	298	24	60	2997	1048
I.7 Visual and Graphic Arts	2	4	44	18	2	6	124	37
92.31 Services related to Artistic and Creative Activities	207	534	13 891	4201	240	607	21 328	7942

This distortion is a result of the fact that code 92.31 is characterized by a high relative share of the value added in the products and services produced. Unlike this code, the summarized data of the major cultural industries encompasses industries with a low relative share of the value added (printing, recording and reproduction, sales, auxiliary activities, etc). To more adequately calculate this code's contribution to the respective major industry, these sub-codes should be excluded. The resultant ratio will largely correspond to the code's internal structure. Thus, the base on which the ratio relating to the contribution of code 92.31 to the four major copyright law industries I.1, I.2, I.3 and I.7 is calculated is the data of the activities falling under the following codes:

Table 2. Proportional Distribution of 92.31 by the Key Industries' Share in the Respective Major Industries

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
I.1 Publishing and Printing (22.11 Book publishing)	123	287	7010	2077	127	311	8688	1628
I.2 Music, Theater, Opera 22.14 Sound recording and reproduction (22.31 Production of audio recordings)	11	64	1136	802	19	85	2313	1781
I.3 Cinema and Video 22.32 Video recording and reproduction (92.11 Film and video production)	57	139	5451	1174	75	144	9619	4285
I.7 Visual and Graphic Arts	16	44	294	148	19	67	709	248
92.31 Services related to Artistic and Creative Activities	207	534	13 891	4201	240	607	21 328	7942

2. Weighting and Distribution of Code 52.44 – Retail Sales of Furniture, Electric Lighting and Household Goods, not included under other Codes

Under this code the different types of trade in furniture and household goods are distributed in proportion to the share of the respective industries. Since both industries are similar in respect to the internal correlation between gross output and value added of the codes that comprise them, there are no significant distortions in the shares of the code in its distribution.

Table 3. Proportional Distribution of 52.44 based on All Industries

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
III.4 Furniture	926	3816	29 028	8689	999	4782	47 663	18 673
III.5 Household Goods, glassware and porcelain	753	3113	37 372	13387	791	3575	57 246	25194
52.44 Retail sales of furniture, electric lighting and household goods, not included under other codes	1679	6929	66400	22 076	1790	8357	104 908	43 867

3. Weighting and Distribution of Code 51.43 – Wholesale of Electrical Household Goods, Lighting, Radio and TV Appliances

In determining the distribution ratio of value added and other major parameters (gross output, number of enterprises and number employed) under this code (see I.2, I.3 and II.1 in the table below) the following methods were simultaneously applied: expert assessment (five interviews with managers of large companies, trading in “black” and “white” appliances) and calculating the ratio in the sale of relevant groups of goods from “Information on sales of trade companies” for the respective year – records, cassettes and CDs, video cassettes and DVDs, radio and TV goods (see Annex 9).

First, based on the mean assessment of the share of sales of radio, TV and other goods, the share of economic activities not related to copyright was determined to be 65 percent under this code. The next step was the distribution of the remaining 35 percent of the economic contribution among the three copyright-based industries. It was impossible here to apply distribution based on their relative share, since we recorded a difference 30 times greater between the gross product (and respectively of the value added) of the single code in II.1 (32.30 Production of radio sets and other appliances for the reproduction of sound and picture) and sales volumes of these appliances (and the value added obtained). This is explained by the fact that Bulgaria is a relatively small producer of this type of appliance and the major part of wholesale and retail are mainly imports.

Therefore, in determining the ratio of value distribution of mixed code 51.43 between (I.2, I.3 and II.1) the ratio in sales volume of the respective groups of goods according to “Information on sales of trade companies” for 2003 and 2005 (Annex 9) was used as being more realistic.

Table 4. Sales according to Groups of Goods and Weights in the Distribution of the 35 percent of Economic Contribution under Code 51.43, related to Copyright

Industry	Wholesale of:	Code	2003		2005	
			thousand BGN	%	thousand BGN	%
I.2 Music, Theater, Opera	Music recording carriers – audiocassettes and audio CDs	0915	6785	0.7	7558	0.6
I.3 Cinema and Video (only code 92.12)	Video recording carriers – videocassettes and DVDs	0916	3408	0.3	6753	0.6
II.1 Radio and TV sets, cassette players, CD and DVD players, computer games accessories and other amusement accessories	Radio and TV goods	0911	348 247	34.0	415 132	33.8
	Total		358 440	35.0	429 443	35.0

4. Weighting and Distribution of Code 51.47 - Wholesale of other Household Goods

This is one of the most complex codes, encompassing a large number of diverse activities. Together with value added of BGN59 963 000 for 2003 and BGN103 026 000 for 2005 it is one of the most significant. Apart from copyright and neighboring rights industries it only includes sports goods (including skis, bicycles, sports equipment, camping equipment), stationery, flowers, pets and watches, falling under the fourth group of industries, not connected to copyright and neighboring rights. The remaining significant number of activities, (trade with mass products such as printed matter, furniture, carpets, musical instruments, leather goods, wicker articles and goods made of wood and cork) fall into the first three groups.

Since we lack a reliable basis for distribution among the industries, the only assessment we can make is to determine the specific copyright factor for these activities, leaving an **independent fifth group**.

In determining the copyright factor for the latter group we adopted the principle of proportionate distribution of common (mixed) codes – the separate industries are taken in respect to those codes comprising them, which to the highest degree are connected, in respect to content, to the distributing code. It was proved that industries with the greatest difference between the codes from the point of view of internal ratio of gross output and value added showed the largest disproportions in redistribution of mixed codes.

That is why in determining the copyright factor we assessed sales values of four types of goods using “Information on sales of trade companies” in Annex 9:

- *Wholesale of books, newspapers, magazines and stationery* (0950). Since stationery is not connected with copyright, we adopted a more conservative approach and sales value for this category was decreased by one-third;
- *Musical instruments* one-third of the sales came under code 0920 (durable goods for leisure time activities, musical instruments);
- *Photographic and optical goods* (0912) – the activities of optical shops, which we assessed as comprising two-thirds of sales volume, do not fall under the WIPO classification either. What remains is one-third of the value of photographic goods;
- *Games and toys* – one-third of the value of code 0930.

Calculated together, they amount to 43 percent and 33 percent of the gross output of this code respectively for 2003 and 2005. Wholesale of furniture, carpets and floor covering, wooden and cork articles, jewelry and leather goods make up the second large share of wholesale of interconnected industries. We can assume that their share in sales values is comparable and even bigger than the sales in the first four groups and is between 35 and 40 percent.

Therefore, on the basis of our expert knowledge and interviews conducted with National Statistical Institute experts and representatives from some of the industries included, the share of sales of goods outside of copyright and neighboring rights industries under this code is estimated to be between 20 and 25 percent. For reasons of caution, we accept the higher share – 25 percent, and this value should be subtracted and added to the value of activity 4.1. General trade – retail and wholesale.

The remaining share of 75 percent we can single out as one activity in group five retail and wholesale of copyright and neighboring rights industries. This activity should be ascribed a copyright factor, since it includes sales of goods by partial copyright industries. Obviously, it can be determined by means of expert assessment, where the presence of mass products should be taken into account, for instance, books, newspapers and other printed matter (main industry), together with musical instruments and photographic materials (interrelated industries). As main and interrelated industries, they all have the highest copyright factor – 1. Some of the other trade activities also have a high copyright factor – jewelry (0.25), games and toys (0.1), and only two of the activities have a very low factor - furniture (0.05) and household goods (0.005).

Table 5. Distribution of 51.47 in Ratio 75:25

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number enterprises	Number of employed	Gross output	Value added
V. Non-distributable group of copyright activities	887	5916	151 841	44 972	920	7267	250 304	77 270
I.V.1 Total sales – retail and wholesale	296	1972	50 614	14 991	307	2422	83 435	25 757
51.47 Wholesale of other household goods	1183	7889	202 454	59 963	1226	9689	333 739	103 026

Using the same basis as above, our assessment is that the copyright factor should be close to or even a little above 0.5, since activities with factor 1 provide for about one-half of the sales values (after deducting the share of general wholesale trade). We adopted a factor of 0.55.

Notwithstanding the number of conditionals in the procedure, it allows for a more precise determination of the share of the fourth group and to calculate its copyright factor, based on the share of the first three groups of industries in relation to the GDP, where the fifth group should be added.

5. Weighting and Distribution of Code 51.85 - Wholesale of Other Office Equipment and Office Furniture

This mixed code includes wholesale of office furniture (III.4.) and word processors, calculators and photocopiers (II.2). We do not take into account mechanical typewriters because it is an insignificant and constantly diminishing group.

From the sales figures in Annex 9 we can obtain the wholesale figures under II.2. On this basis, by subtracting the value of code 51.85 we get the assessed sales value for under III.4.

This ratio is close to the inner ratio between gross output and value added codes for each of the two industries II.2. and III.4. That is why we apply the same approach for the proportional distribution of the values, used with code 52.44.

Table 6. Distribution of Code 51.85

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
II.2. Computers and computer accessories and equipment (including photocopiers)	43	164	6811	2613	39	139	5683	2766
III.4. Furniture	125	879	15 504	4836	120	730	14 338	4700
4.1 Total sales – retail and wholesale	the only group that is not included in II.2 and III.4 is typewriters, whose share is insignificant and we do not take it into account, i.e. VV.1. is excluded							
51.85 Wholesale of other office equipment and furniture	168	1042	22 314	7449	159	869	20 021	7465

6. Weighting and Distribution of Code 52.45 - Retail Sale of Electrical Household Appliances; Records, Cassettes, CDs, DVDs; Musical Instruments; Radio and TV Goods

Here again, we used two approaches for determining the ratio of distribution of value added and other major parameters (gross output and number of people employed) of the mixed code among the respective industries (I.2, II.1 and III.3) – expert assessment (interview with traders of “black” and “white” appliances) and sales ratio of the relevant groups of goods from “Information on sales of trade companies” for the respective year – records, cassettes and CDs, video cassettes and DVDs, radio and TV goods (see Annex 9). Based on the mean assessment of the share of sales of radio, TV and other goods, the share of economic activities not related to copyright was determined to be 65 percent in this code.

The next step was the distribution of the remaining 35 percent of the economic contribution among the three industries. Similar to code 51.43 in determining the ratio of distribution of values in the mixed code 52.45 between I.2, II.1 and III.3, the ratio in sales volume of the respective groups of goods was used as more realistic, and not that between the three industries.

Table 7. Sales according to Groups of Goods and Weights in Distribution of the 35 percent of Code 52.45

Industry	Retail sale of	Code	2003		2005	
			thou- sand BGN	%	thou- sand BGN	%
I.2 Music, Theater, Opera	Music recording carriers – audio cassettes, audio CDs and video cassettes and DVDs	0915 0916	11 707	2.4	16 425	2.4
II.1 Radio and TV sets, cassette players, CD and DVD players, computer games accessories and other gaming equipment	Radio and TV goods	0911	149 007	30.9	215 125	30.9
III.3. Musical Instruments	Durable goods for leisure time activities, musical instruments	1/3 1 0920	7971	1.7	12 009	1.7
	Total		166 695	35.0	244 560	35.0

7. Weighting and Distribution of Code 52.48 – Retail Sale in Specialized Shops, not classified elsewhere

There is also a complex code with a great number of diverse activities. Together with value added of BGN106 006 000 for 2003 and BGN175 981 000 for 2005 it is the largest of the mixed codes. It encompasses retail sales of three groups of goods:

activities with copyright factor 1, falling in I and II groups of industry
souvenirs, works of art and craft, church decoration;
office furniture, office equipment, computers and standard software;
photographic articles, optical and precision equipment;
postage stamps and coins.

activities with lower copyright factor, falling in group III
games and toys – 0.50;
watches and jewelry – 0.25;
wallpaper and floor covering, carpets and rugs – 0.02;

non-related industries (IV group)

long distance communication equipment;
activities of photographic shops;
sports goods, fishing goods, camping gear, boats, bicycles;
guns for hunting and for sport, pneumatic and air rifles and guns and ammunition;
flowers, plants, seeds, fertilizers, pets and pet food;
heating materials
other non food goods.

Similar to code 51.47, there is no reliable basis for the distribution of value added and the other parameters among the separate industries. We tried, however, to assess the share of the last group of unrelated industries. Again using information on the sales of groups of goods connected to copyright and neighboring rights in accordance with Annex 9, in the section on retail sales of computer and office equipment (with factor 1), we obtain values for 2003 and 2005, equal to 26 percent and 33 percent of the value of sales under this code respectively. Here we find such mass products as carpets, wallpaper, photographic accessories, etc. Together with the activities already under code 51.47, a new element: souvenirs, works of art and crafts, church decoration is included in the activities with a copyright factor.

On the other hand, different from items under code 51.47, code 52.48 includes two other types of activities, not connected to copyright and neighboring rights (IV group), linked with sale of mass products – heating materials, long distance communication equipment and other non-food goods. For instance, the retail sales values of long distance communication equipment for 2003 and 2005 (according to Information on sales of trade companies) are 14 percent and 11 percent respectively of the total sales value for code 52.48.

On the basis described above, we determine the share of the sale of goods by industries, unrelated to copyright and neighboring rights under this code, to be 35 percent. This is an increase of 10 percent in relation to the share of this group of activities, which we determined in the process of weighting the code 51.47 (25 percent).

Table 8. Distribution of 52.48 in Ratio 65:35

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
V Non-distributable group of copyright activities	5207	17 016	164 717	88 904	5953	19 271	238 385	114 388
IV.1 total sales – retail and wholesale	2804	9162	88 694	37 102	3205	10 377	128 361	61 593
52.48 Retail sale in specialized shops not classified elsewhere	8011	26 177	253 411	106 006	9158	29 648	366 746	175 981

The remaining share of 65 percent of the activities of the first three groups taken together is included in the above-defined fifth group, with the same copyright factor of 0.55. The logic behind the determination of this factor is the same as for determining factor 51.47.

8. Weighting and Distribution of Code 74.87 – Other Business Services

This code encompasses three groups of business services:

Services, related to the main group of copyright-based industries:

- fashion design, connected with textiles, clothes, shoes, jewelry, furniture and other interior design, other fashion goods, as well as other personal articles and household goods;
- activities of graphic designers;
- activities of interior designers;
- activities of designers of stalls and pavilions;
- activities of agents and impresarios on behalf of and at the expense of individual performers, seeking employment in film, theater or other productions, or in sports;
- selection and distribution of cinema, theatre, TV parts (casting services);
- finding publishers, directors, producers, etc. for books, performances, works of art, photography, etc.;
- managing copyright and royalties (without copyright on films);
- activities of independently-employed auctioneers.

Services, not related to copyright-based industries

- collection of bills, payments, receipts, assessment of credit ratings in connection with credit profile or business practice of companies or physical persons
- business mediation in the sphere of organizing the sale or purchase of small and medium-sized enterprises, including offices for freelancers
- emission of coupons and stamps for discounts enabling a purchase after collection of the requisite quantity
- assessment other than for the purposes of insurance
- organizers of fairs, exhibitions and congresses
- franchisers, consultants, other than technical and engineering, not classified elsewhere
- reading of gas meters, water meters, electrical meters and heat meters of households
- managing of industrial property rights (patents, licenses, trademarks, franchises, etc.).

The total value added, calculated for this code is BGN31 020 000 for 2003 and BGN43 920 000 for 2005. The presence of such a large undifferentiated code in the classification of economic activities, adopted by the National Statistical Institute of Bulgaria shows how underdeveloped some of the copyright and other activities are.

On the basis of the expert knowledge of the research team, as well as interviews and group discussions with representatives from some of the industries under this code connected to copyright and other neighboring rights' industries (different types of design), as well as the value added generated by independent sources, generated in the societies for collective management of copyright¹, we can conclude that value added of "designer" activities here is comparable to that obtained by societies for collective management of industries connected to copyright and neighboring rights – i.e., about 10 percent. This share is added to the data for activity 1.7: Visual and Graphic Art.

¹ According to the data provided to the team directly by copyright collecting societies, the value added was BGN2 930 000 for 2003 and BGN5 155 000 for 2005, i.e., about 10 percent of the value added in this code.

Table 9. Distribution of 10 Percent of 74.87 – Other Business Services

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
I.7 Visual and graphic art.	88	360	10 212	3102	146	530	15 747	4392

We assessed the share of value added, generated in different types of mediation in theater and music, the cinema, TV, book publishing and art at **25 percent**. This share is distributed proportionally to the share of the respective main industries, applying the same parameter as for code 92.31.

Table 10. Distribution of 25 Percent of 74.87 According to Main Industries

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
I.1 Book Publishing and Printing (22.11 Publishing of books)	131	484	12 883	3834	193	678	16 036	2251
I.2 Music, Theater, Opera 22.14 Production audio recordings (22.31 Production of audio recordings)	12	108	2087	1481	28	165	4209	2453
I.3 Cinema and Video 22.32 Production of video recordings (92.11 Production of cinema and video films)	61	234	10 019	2187	113	315	17 754	5924
I.7 Visual and Graphic Art	17	75	541	273	29	146	1309	343
25% of 74.87 Other business services	220	901	25 530	7765	364	1325	39 388	10 980
74.87 Other business services (including graphic design)	879	3602	102 120	31 020	1455	5299	167 471	43 920

The remaining 65 percent of value added, generated by business services under this code and not related to copyright, is outside the scope of this survey.

6. Weighting of Code 71.40 – Rental of Audio and Video Recordings, Books, Audio and Video Equipment, Musical Instruments, Jewelry, Sports Equipment, Furniture, Textiles and Ceramic Articles, Manual Household Machines, Flowers and Plants

This code contains a small part of the activities under group four of industries not connected to copyright and neighboring rights – rental of sports equipment. The situation here is similar to code 51.47 – it is necessary to separate a small share of untypical activities and to ascribe copyright factors to the remainder, which included activities in comparison to the first three groups of copyright-based industries (main, interrelated and partial industries). On this basis, this code should also be added to the fifth group.

Among the activities, the most popular is rental of video recordings and sports equipment (skis, boats, water wheels, etc.). Adopting a more conservative approach we can also assess the share of untypical activities at 20 percent, which is added to the activities in IV.1 General retail and wholesale.

The remaining 80 percent of the values under this code will be included in group five and should be weighted with a copyright factor. We detect a combination of a significant share of activities with factor 1 (rental of books, audio and video recordings, audio and video equipment, musical instruments) and activities with a lower factor (jewelry, furniture, household utensils, textiles and ceramics) – a situation similar to that of code 51.47. That is why we adopted the same copyright factor of 0.55.

Table 11. Distribution of 71.40 in Ratio 80:20

	2003				2005			
	Number of enterprises	Number employed	Gross output	Value added	Number of enterprises	Number employed	Gross output	Value added
V. Non-distributable group of copyright activities	179	645	5573	1054	126	784	7255	2083
IV.1 Total sales – retail and wholesale	45	161	1488	264	31	196	1814	521
71.40 Renting out of goods for personal or home use	224	806	7342	1318	157	980	9069	2604

10. Weighting of Code 92.52 – Activities of Museums and Galleries; Preserving Cultural Monuments

From the section in the report referring to the economic contribution of cultural institutions financed by the budget¹ it becomes clear that the data contained in code 92.52 does not apply to museums, financed by the budget. At the same time, this code classifies in one group museums and galleries, which under WIPO's classification fall under visual and graphic arts. All activities connected with maintaining national heritage sites are also classified here.² The expert assessment of the subjects under this code shows that it contains information mainly about private art galleries, as well as the small number of private (or non-state)

¹ See Part 2: Identification of NCEA-2003 codes and the sources of statistical data

² The share of private firms on the latter is low – there are few examples such as the *Trakart* gallery in Plovdiv that received a 20-year concession on antique mosaics located at the subway near the central square.

museums. That is why we have divided the indicators in this code (gross product, value added and number employed) in a ratio 4:1 between visual and graphic arts and museums.¹

11. Redistribution of Code 52.50 - Retail Sale of Second-Hand Goods in Shops

This code covers three subgroups: 1) sale of second-hand books; 2) sale of antiques and 3) sale of other second-hand articles. The analysis of the companies in the last group given here shows that they are mainly shops that sell second-hand automobile parts and second-hand clothes, which have nothing to do with the copyright-based industries. This group includes a significant number of companies and demonstrates significant turnover, higher than those in the remaining two groups. Adopting a conservative approach we decided to ascribe to the first group – sale of second-hand books, 10 percent of value added under this code, which is included in the book publishing and printing sector of the main copyright-based industries. Value added of 10 percent is also ascribed to the group covering sale of antiques, which is included in museums for the partial copyright industries.

The remaining 80 percent share of value added under code 52.50 is included in total wholesale and retail in the group of non-specialized, supporting industries. We realize that judging by the trafficking in exports of antiques and the multitude of illegal excavations of archeological sites in the country, it is possible that the sale of antiques may generate significant profits in the sphere of the informal economy and be unaccounted for in national statistics.

12. Redistribution of Code 92.34 - Other Leisure Activities, not classified elsewhere

This code includes: dance schools and dance instructors; organization of circus shows; puppet shows, rodeos, shooting galleries, firework displays; etc. Most of them, which have a high turnover, such as puppet shows and circus performances, fall under music, theater and opera under the main copyright-based industries. Expert assessment ascribed 80 percent of value added to this code to be included in this main copyright industry.

¹ It was decided to retain the share of data for museums as the basis for comparison in further studies, although their determination was based on expert judgment. There is good ground to believe that this sector will develop further in the coming years. This was also strongly recommended by WIPO consultant Prof. Robert Picard.

APPENDIX 5

Methodological Notes Concerning GDP Calculation Procedures in the Bulgarian System of National Accounting

GDP is one of the main economic indicators. The annual GDP figures started to be compiled in 1980 following the UN's F20 methodological procedure for transformation of economic data from MPS to SNA. The direct implementation of the NA system started in the early 1990s when GDP started to be estimated as a result of implemented annual sets of non-financial national accounts – production accounts, generation of income accounts, use of disposable income accounts and capital accounts – all of them integrated in the frame of SUTs. Quarterly estimates of GDP were introduced in 1995 – initially based on production only as a sum of generated value added by the economic sectors and industries. The independent quarterly estimates of GDP were introduced in 1998 with procedures for reconciliation between the two approaches.

The European System of National and Regional Accounts (ESA '95) is the methodological basis for compilation of the national accounts. Two independent approaches are used for the compilation of GDP for the estimation at current and constant prices – the production and expenditure approach. The third approach based on income generation is not treated as independent as the other two use the same data sources.

GDP for Bulgaria is a balanced estimate of the data calculated independently by production and by final expenditure.

GDP by production characterizes the final result of the economic activity. It is measured by the total gross value added generated by all resident institutional units, which are producers of goods and services. From the production aspect, GDP at market prices is calculated as a sum of the gross value added adjusted as a basis for the economy as a whole. Adjustments include net taxes on products plus non-deductible VAT and import duties less financial intermediation services indirectly measured (FISIM), because of their specific monitoring.

Gross output is shown on the resource side of the production account and covers the market output, the output produced for own final use (including housing services produced for own consumption by owner occupiers) and non-market output. Gross output consists of:

- goods and services sold including barter transactions;
- goods and services used for payment in kind;
- goods and services supplied to another establishment belonging to the same enterprise or to a non-market producer;
- resale of goods less their book value;
- goods and services produced by households for their own final use; rent for owner-occupied dwellings; goods and services retained by their owners for own final consumption or gross fixed capital formation;
- goods and services supplied free or sold at prices uneconomically significant to other institutional units; change in inventories of finished goods and work-in-progress.

The gross output is valued at basic prices, which do not include net taxes on products as distinct from the producers' prices. Until 1996 the subsidies from the state budget were treated as "other subsidies on production" and did not affect basic prices. Subsidies have been included in the basic prices since 1996.

The holding gains/losses are accumulated in the value of inventories of finished goods and work-in-progress due to high inflation, i.e., they are not a result of production activity. Since 1994 data on gross output excludes holding gains/losses.

Intermediate consumption shown in the production account is valued at purchasers' prices and consists of:

- goods and services consumed as inputs in the process of production i.e., either transformed or used in the production process;
- goods and services provided to employees while on active duty;
- small tools and equipment used exclusively or mainly at work;
- current repairs and maintenance;
- purchased external services, e.g., research and development, staff training, marketing, advertising, communications, rentals, subscriptions etc.

Gross value added balances the production account between gross output and intermediate consumption.

Net taxes on products covers taxes on products less subsidies granted by the state budget for certain goods and services, produced by non-financial units.

Non-deductible VAT is the VAT payable by a purchaser which is not deductible from his own VAT liability, if any. It is equal to the estimated value of VAT due to be paid to the state budget, reduced by the tax reimbursed to taxpayers or by tax deducted against other tax liabilities.

The total value of **FISIM** is measured as a difference between interest received and interest paid by financial intermediaries respectively on credits and deposits plus net revenues from transactions with securities.

The **income generation account** is compiled in parallel with the production account and shows the activity, economic and institutional sector in which the primary in-comes originate.

Gross operating surplus and/or mixed income is a balancing item, which is estimated as the difference between gross value added at basic prices and compensation of employees and net taxes on production.

Compensation of employees includes the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period, employers' social contributions (actual and imputed), health insurance contributions and contributions to unemployment according to the labor legislation in force.

Other taxes on net production represent payments by employers to the state budget less subsidies granted by it to the economic units. Until 2000 it consisted only of subsidies granted, and since 2001 other taxes on production have been included.

GDP by final expenditure is calculated as a sum of individual consumption, collective consumption, gross fixed capital formation, changes in inventories, net exports of goods and services.

Individual consumption is measured by:

- a) **Household final consumption expenditure:** purchases of goods and services except those for intermediate use; goods produced by households for their own final consumption; purchases of services, fully or partially paid; rent of owner-occupied dwellings; income in kind. Since 1996 individual consumption of households is calculated according to the national concept i.e., including the consumption of residents abroad and excluding the consumption of non-residents. Since 1997,

household final consumption expenditure is calculated in accordance with COICOP – Classification of Individual Consumption by Purpose, which is used in SNA '93 and ESA '95. The consumption expenditure is presented as 12 main divisions;

- b) *Final consumption expenditure of non-profit institutions serving households* - these are expenditures of trade unions, religious organizations, charities and other NPISHs rendering goods and services to households free or at economically insignificant prices;
- c) *Government final consumption expenditure* - these are expenditures incurred by the state budget for the provision of individual services free of charge to households: health, social insurance, education, sports, culture and arts.

Collective consumption is measured by final government expenditure on collective services provided to society as a whole. These are services for maintenance of settlements, fundamental science and part of scientific services, government administration, defense and security.

Gross fixed capital formation includes investments for the following types of fixed assets: tangible fixed assets (crops, productive and draught animals, buildings, machinery and equipment, transport facilities, agricultural equipment); intangible fixed assets (R&D products, software, mineral exploration and construction, research and design). Gross fixed capital formation is measured by expenditures on acquisition of fixed assets (including those under construction) less the revenues from sales of existing fixed tangible assets.

Inventories consist of materials and supplies, work-in-progress, finished goods and goods for resale; young animals and animals for fattening. Four quarterly estimates for holding gains/losses and changes in inventories are made and the annual values are the sum of the quarterly figures. The holding gains for work-in-progress and finished goods are excluded from the estimates of gross output in the production account. Since 1997 the intermediate consumption has been adjusted by the value of holding gains for raw materials and supplies. Changes in inventories included in GDP by final expenditure are calculated on the basis of information for all four types of inventories.

The estimates for all inventories were carried out using the following approach: The value of inventories by type and by activity, at the beginning and at the end of the corresponding quarter, is deflated by the specific price indices and transformed into the average preceding year prices. The difference between these values represents the estimate of the physical change of the corresponding type of inventory at constant prices. The change in inventories at quarterly current prices is obtained through inverse inflation by the price index for the quarter in question.

The values of holding gains/losses are maintained for 1991-1993 at current prices and for 1992-1994 at preceding year prices.

Net exports of goods and services are measured by the difference between the exports and imports of goods and services. Exports and imports are valued f.o.b.

APPENDIX 6

Structure of the Primary Statistical Data for Economic Activities used in the 2007 WIPO Study

Non-Financial Enterprises, supplying a Balance for 2005

1. Press and Literature

NACE code NKID 2003	Number of enterprises	Property rights	Software	Products of R&D activities	Other lasting non-material assets	Lasting non-material assets	Costs of materials	Costs of hired services	Other costs	Depreciation of assets	Provisions	Tangible fixed assets in progress and costs on liquidation fixed assets	Amend of inventory and unfinished items of production
1	2	3	4	5	6	7	8	9	10	11	12	13	14
2211													
2212													
2213													
2221													
2222													
2223													
2224													
9251													
5247													

Continuation

NACE code NKID 2003	Profit from main activity	Profit	Net income from sale of products	Net income from sale of goods	Net income from sale of services	Rents incl.	Other incomes	Net sales income (general output)	Carrying amount	Number employed
1	15	16	17	18	19	20	21	22	23	24
2211										
2212										
2213										
2221										
2222										
2223										
2224										
5247										

Non-financial enterprises, not supplying a Balance for 2005

1. Press and Literature

NACE code NKID 2003	Number of enterprises	Costs of materials	Costs of hired services	Other costs	Tangible fixed assets in progress and costs on liquidation fixed assets	Amend of inventory and unfinished items of production	Profit	Net income from sale of products	Net income from sale of goods	Net income from sale of services	Others	Net sales income	Carrying amount	Number employed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2211														
2212														
2213														
2221														
2222														
2223														
2224														
9251														
5247														

APPENDIX 7

Wholesale and Retail of Some Groups of Goods, Related to Copyright-Based Industries

Wholesale and Retail of Copyright-Related Goods for 2003 in BGN'000 (including VAT)

Group of goods	Code	Wholesale	Retail
		1	2
Telecommunication equipment	0812	197 195	136 652
Radio and television goods	0911	348 247	149 007
Optics and photographic accessories	0912	57 080	25 626
Computer and office equipment	0913	834 302	257 839
Carriers of audio-visual data, photographic equipment and machines for information processing	0914	66 724	29 635
Carriers of musical audio-recordings – audiocassettes and audio CD	0915	6 785	8 574
Carriers of video-recordings – videocassettes and DVD	0916	3 408	3 133
Durable items for recreational activities, musical instrument	0920	50 993	23 913
Toys and games, sport and camping equipment, flowers and pets	0930	217 319	84 273
Books, newspapers, journals, office goods and consumables	0950	381 836	326 483

Wholesale and Retail of Copyright-Related Goods for 2005 in BGN'000 (including VAT)

Group of goods	Code	Wholesale	Retail
		1	2
Telecommunication equipment	0812	254 193	166 003
Radio and television goods	0911	415 132	216 126
Optics and photographic accessories	0912	74 023	37 737
Computer and office equipment	0913	1 058 384	489 701
Carriers of audio-visual data, photographic equipment and machines for information processing	0914	78 674	52 441
Carriers of musical audio-recordings – audiocassettes and audio CD	0915	7 558	11 862
Carriers of video-recordings – videocassettes and DVD	0916	6 753	4 563
Durable items for recreational activities, musical instrument	0920	71 014	36 026
Toys and games, sport and camping equipment, flowers and pets	0930	247 678	109 028
Books, newspapers, journals, office goods and consumables	0950	468 884	374 300

APPENDIX 8

Data from Related Studies and Calculations, used in Defining the Copyright Factor in Partial Copyright-Industries and Non-Dedicated Support Industries

I. Generalized Data from a Telephone Survey with Managers in Copyright-Based Industries Total Number of Interviews carried out – 44 managers and owners

PARTIAL COPYRIGHT INDUSTRIES	How important is copyright in the daily operations of your firm?						Possess* copyrights	Possess nonmaterial assets (total)	Income from selling IP	Buying of copyrights, licenses, patents	Average on 1, 2, 3, 4, 5
	Very significant	Significant	Slightly significant	Insignificant	Total	Mean					
Weight	1.00	0.5	0.25	0		(1)	(2)	(3)	(4)	(5)	
Apparel, textiles and footwear	4	2	4	2	12	0.50	0.00	0.67	0.00	0.17	0.27
Jewelry and coins	0	2	0	1	3	0.33	0.33	1.00	0.00	0.00	0.33
Other crafts											
Furniture	2	0	1	2	5	0.45	0.20	1.00	0.20	0.20	0.41
Household goods, china and glass	1	4	3	4	12	0.31	0.08	0.67	0.00	0.00	0.21
Wall coverings and carpets	2	3	1	1	7	0.54	0.00	0.43	0.00	0.00	0.19
Toys and games	2	0	1	2	5	0.45	0.20	0.60	0.00	0.20	0.29
Interior design	1	1	2	0	4	0.50	0.5	0.75	0.25	0.00	0.40

* - values in columns 2-5 represent the shares of positive responses in the group

II. Secondary Analysis of some Primary Statistical Data on NCEA-2003 Codes, relevant to Copyright-Based Industries (durable non-material assets over 3-year period)

PARTIAL COPYRIGHT INDUSTRIES	2003	2005	2003	2005	2003	2005	(LNMA2005-LNMA2003)/(NSI2005-Prof2005)
	PR/NE	PR/NE	LNMA/NE**	LNMA/NE***	LNMA/(NSI - Prof)	LNMA/(NSI - Prof)	
Apparel, textiles and footwear	0.29	0.32	3.5	.9	0.6%	0.7%	0.1%
Jewelry and coins	0.00	0.00	2.6	1.4	1.4%	0.3%	-0.8%
Other crafts	0.37	0.80	0.9	5.8	0.2%	0.7%	0.6%
Furniture	0.13	0.28	1.1	2.0	0.2%	0.2%	-0.1%
Household goods, china and glass	5.95	4.92	9.3	8.5	0.9%	0.9%	0.0%
Wall coverings and carpets	0.00	0.00	5.4	4.7	0.7%	0.6%	-0.1%
Toys and games	0.08	0.63	1.9	0.9	0.9%	0.1%	-0.2%
Architecture, engineering, surveying	1.70	0.50	3.8	6.1	1.6%	2.2%	0.7%
Museums and galleries	0.10	0.05	0.4	0.6	0.3%	0.2%	0.07%
Interior design	0.31	0.14	196.7	9.5	86.3%	3.7%	-66.1%

LNMA* – lasting nonmaterial assets

NE** – number of enterprises

LNMA/NE*** – in thousands BGN

III. Calculation of the Copyright Factor for Non-Dedicated Support Industries according to their Share in GDP

General Distribution on after Redistribution of the 12 Mixed Codes		2003	2005
		Value added (BGN'000)	Value added (BGN'000)
Weighted data	Core copyright industries	394 479	672 270
	Interdependent industries	172 454	267 539
	Partial copyright industries	25 486	39 888
	Non-attributable group	63 212	106 558
Non weighted data	Non-dedicated support industries	3 088 617	4 213 332
BG economy	National Value added	29 604 494	35 220 410
	National GDP	34 627 545	42 797 407

Copyright factor	Value added (Core + Interdependent + Partial + Non-attributable)/Value added (National - Non-dedicated)	2.5%	3.5%
	Value added (Core + Interdependent + Partial + Non-attributable)/(National GDP - Value Added Non-dedicated)	2.1%	2.8%

APPENDIX 9

Reasons for Taking Decisions Regarding the Copyright Factor of Partial Copyright Industries

Table 1. Copyright Factor for the Partial Industries in Bulgaria in Comparison to the Values in Singapore and Hungary

Partial copyright industries	Singapore 2004 %	Hungary 2003 %	Bulgaria 2007 %
<i>Ready-to-wear clothes, textiles and shoes</i>	0.4	0.5	0.6
<i>Jewelry and coins</i>	25.2	25.0	20.0
<i>Other crafts</i>	42.0	40.0	40.0
<i>Furniture</i>	5.0	5.0	5.0
<i>Household goods, glassware and porcelain</i>	0.6	0.5	0.5
<i>Carpets and wallpaper</i>	1.7	2.0	4.0
<i>Games and toys</i>	42.0	50.0	40.0
<i>Architecture, engineering activities and technical consultations</i>	8.3	10.0	10.0
<i>Museums and galleries</i>		50.0	50.0
<i>Interior design</i>	8.3		

Ready-to-wear clothes, textiles and shoes: Textiles give the second most significant result from the survey of the sectors of partial copyright industries, equal to that of design and interior design. Only two of the 12 managers interviewed said that copyright does not apply to their activities. From the point of view of the ratio in the change of $[(LNMA2005-LNMA2003)/(NSI2005-Prof2005)]$ we see the same value as with furniture and higher than that for household goods, glassware and ceramics (see *Annex 8, item 2*). Moreover, in the last few years, textiles made up for 28 percent of the country's exports. According to interviews the country has preserved its position mainly on account of boutique goods (originals, limited series and high quality) as a means of combating competition from Chinese textiles. These expert assessments, together with the survey results oblige us to increase by 20 percent the copyright factor for this industry compared to Hungary, by setting it at 0.6 percent.

Jewelry and coins: Interviews with experts and companies demonstrated that large quantities of mostly imitation jewelry are freely imported from Turkey and other Middle Eastern countries without any compensation for the copyright of designers of such articles. The team therefore ascribed a copyright factor lower by 25 percent than that adopted in Hungary and Singapore for this industry.

Other crafts: For this industry the value of the Hungarian copyright factor was adopted – half the interviews conducted with experts showed that here too a significant section of the artistic crafts production is found in the informal economy and is not included in the national statistics.¹

¹ According to the study by Stati Startev, GDP in Bulgaria was around 50 percent lower than that declared (see Statev, S. (ed.) (2003) – *Economic Growth and Stabilisation*, University of National and World Economy, De-partment of Economics, chapter 1).

Furniture: The same copyright factor as Hungary and Singapore was adopted. Interviews with five managers gave the same result as in the games and toys sector (see Annex 8, item 1). The calculated ratio of change in intangible assets in respect to the change of revenues and profits $[(LNMA2005-LNMA2003)/(NSI2005-Prof2005)]$ is the same as in the sector for textiles and shoes (see Annex 8, item 2). However from discussions with representatives from the sector (Rousse, Plovdiv) we established the presence of companies, making high quality and original furniture with a high share of activity, protected by copyright, whose products are often borderline works of art. Therefore, the factor for Bulgaria should not be lower than that for Hungary and Singapore – 5 percent.

Household goods, glassware and porcelain: Our Hungarian colleagues adopted a lower copyright factor for this industry compared to the one in Singapore – 0.5 percent instead of 0.6 percent. Whereas among the 12 managers interviewed low figures for the significance of copyright predominated (an average of 31 percent), as well as a zero value for $[(LNMA2005-LNMA2003)/(NSI2005-Prof2005)]$, for this industry, we adopted a copyright value, identical to Hungary – i.e., 0.5 percent (see Annex 8, items 1 and 2).

Carpets and wallpaper: The production of wallpaper in Bulgaria is limited, but there are several traditional centers for the production of carpets with original designs, which are the products of traditional crafts. That is why we decided to increase the copyright factor by doubling the comparatively low values in the Hungarian and Singapore surveys, setting it at 4 percent.

Games and toys: There is only one computer gaming company in Bulgaria positioned on the international market but several that are of national importance. Among the five managers surveyed we received differing views with a slight predominance of the negative ones (see Annex 8, item 1). Therefore, similar to jewelry, the copyright factor in this industry in the Bulgarian survey should be decreased by 20 percent compared to that of Hungary and thus it is set at 40 percent (close to that of Singapore).

Architecture, engineering activities and technical consultations: The preliminary evaluation of the share of architecture companies in the total number of companies, registered under the codes of this industry, as well as interviews with experts in the sector conducted in 2005 provided sufficient information to claim that the situation in Bulgaria is similar to that of Hungary and therefore we left the value of the factor unchanged at 10 percent.

Museums: Assessing the copyright factor for this industry, we noted the low value of the gross output and the value added. As already mentioned, in justifying the manner of distributing mixed code values (code 92.52, covering museums and galleries, part of the main industry of visual and graphic arts), national statistics do not give a full account of the economic contribution of the museum sector, due to its being combined with galleries, and also due to the higher number of subsidized museums, on which economic data are not collected. We discovered that for 2005 the gross output under this mixed code 92.52 was BGN5 133 000, while the survey conducted by us at the end of the same year in the second largest city in Bulgaria showed, that the gross sales of private galleries were close to BGN2 million per annum, which is 40 percent of that recorded by the national statistics. Therefore, while we adopted a copyright factor equal to the Hungarian survey we consider it to be a conservative assessment with the realistic value added significantly greater than that given in the economic statistics.

APPENDIX 10

Summary of the Interviews and Focus Group Discussions with Representatives of Collecting Societies, Leading Companies and Legal Consultancy Firms in Different Sub-Sectors of the Core Copyright Industries

Four Focus Group Meetings with the Research Team took place on November 13, 15, 16 and 21, 2006 with:

- I. 4 collecting societies, (PROPHON, MUSICAUTOR, FILMAUTOR, THEATERAUTOR);
- II. 2 companies importing and distributing entertainment software;
- III. BSA/ARSIS Consulting – a representative of the business software association and one from a business software distribution company (BMG);
- IV. BAMP – the Bulgarian Association of Music Producers;
- V. Representatives of the music industry – producers and licensed representatives of music companies
- VI. A representative of the largest private TV station with national coverage (BTV);

The participants outlined the main issues and obstacles in their respective fields, but also gave their professional opinions on the progress made over recent years.

I. The COLLECTING SOCIETIES, according to Bulgarian law are non-profit organizations. Their legal status is laid down by the Bulgarian Copyright and Neighboring Rights Act /art. 40/ and the Law for the Non-profit Corporate Bodies.

Greatest achievements common to all the collective societies:

- Since their inception in the 1990s the collecting societies have managed to increase significantly the number of members, as well as the number of contracts with users and, therefore, to increase their revenues.

For instance, in 2004 the amount collected by PROPHON doubled to BGN800 000 (around 400 000) in comparison with the total amounts for 2002 and 2003. This trend is valid for 2005 as well and this brings in greater remuneration for redistribution among the producers of phonograms and performing artists.²

- The percentage for administrative costs included in the contracts of the collecting societies is between 10 percent for PROPHON, THEATERAUTOR and 25 percent for MUSICAUTOR.
- There is no overlap between collecting societies and, therefore, no competition among them². The principle is: one society for one kind of rights.

¹ Separate annual data was gathered from the collecting societies.

² The monopoly of the organizations, and PROPHON in particular, was mentioned only once as an issue – by a representative of the most powerful music business company; the reason for that is the fact that there is one single tariff in the contracts, which was seen as price domination of one collecting society in the market.

Main issues and obstacles for all the agents¹:

- Legal enforcement of the existing copyright legislation involved very slow procedures; difficulties in collecting evidence; inefficient implementation of court decisions;
- Reforms and improvements in this area in Bulgaria will be driven by the need for harmonization with EU legislation;
- Lack of competence in the matter by judges at central and regional levels; lack of court practices and case law in this area;
- Insufficient control on content, illegal Internet up-loading and down-loading through local LAN providers, as well as on the availability of pirated products;
- Low level of public awareness – both in terms of product consumption and in terms of the moral and economic losses of piracy;

PROPHON

www.prophon.org.

The collecting society for the neighboring rights of phonogram producers and performing artists, founded in 1998. The organization is authorized to collect remuneration from public performances, broadcasting, cable retransmission and copy levies.

Main issues and obstacles:

- Difficulties in convincing the public, the main users of the music repertoire in Bulgaria to sign contracts;
- Retransmission and broadcasting licenses – no tradition in Bulgaria for paying royalties; prejudices regarding the ‘intangible’ rights.

MUSICAUTOR

www.musicautor.org

Main issues and obstacles:

- Recent amendments in VAT legislation, leading to compulsory registration of the collecting societies. This has set a precedent in financial practice in Bulgaria and is the subject of a joint proposal on behalf of four collecting societies to the Ministry of Finance to regulate this issue.

FILMAUTOR

www.filmautor.org

The collecting society for the copyright and neighboring rights of film authors and producers of audiovisual works in Bulgaria, founded in 1993.

Greatest achievements:

Good practice – the campaign for distribution of legal DVDs with the national daily newspapers brought higher revenues to the authors, more than they had ever received through traditional distribution chains.

¹ Emphasized as key issues by almost all the organizations interviewed.

Main issues and obstacles:

- Very limited number of users of the rights – few TV and cable operators broadcast/transmit Bulgarian films, therefore the limited number of contracts leads to lower revenues;
- Inadequate legislation in the field of audio-visual and communications; lack of adequate regulation of cable operators etc.

THEATERAUTOR

The collecting society for the copyright of playwrights and composers in Bulgaria.

Greatest achievements (apart from those stated for other collecting societies):

Out of five legal procedures started, three have been successfully finalized and two dropped by mutual consent. Some of the cases are used as examples in the new positive practice of the courts.

TRANSFER GROUP, LTD. – PLOVDIV

www.transferbg.com

Distributor of games.

One of the firms that has contributed greatly to the establishment and development of the computer gaming business in Bulgaria. Started up in 1990.

Greatest achievements:

Thanks to Transfer Group most of the existing cybercafés in Plovdiv became legitimate through the license contracts they concludes and flexibility in pricing.

Active participation in anti-piracy campaigns and seminars.

PULSAR

www.pulsar.bg

The biggest distributor of licensed entertainment software in Bulgaria.

Greatest achievements:

Overcoming market challenges through flexible pricing and successfully introducing legal software to Internet gaming clubs and other chains of collective users.

Recommendation 1: Specialized education and training of judges and prosecutors in interpretation and implementation of the copyright legislation;

Recommendation 2: To limit Internet piracy, particular attention must be paid to the prevention of illegal downloading on the Internet.

PAYNER Studio**Greatest achievements:**

- Copyright and neighboring rights-based business with considerable investments in development and licensing of copyright products, generating revenues from copyright realization;
- Diversified product – a private TV music channel offering possibilities for TV and advertising production.

- Registration of trade marks and network of clubs for simultaneous promotion of the main product and for raising revenues.

ARSIS Consulting

Greatest achievements:

- Long-term experience in promotion and protection of intellectual property rights and copyrights in particular;
- Well-developed partnership network in cooperation with collecting societies, BAMP, institutions, firms etc.
- Important work on awareness raising and training of judges, prosecutors, police officers, etc. on specific intellectual property issues for improving penal procedures.
- A guide for investigation of offences against intellectual property rights for prosecutors is in preparation.

Main issues and obstacles:

- Software piracy as a global issue is part of the BSA focus. ARSIS Consulting is working on this issue at national level with particular attention being paid to the economic losses occasioned by software piracy (According to the [Third Annual BSA and IDC Global Software Piracy Study](#), software piracy in Bulgaria in 2005 accounted for about 71 percent of the market).
- Low level of public awareness about economic and moral damages, both in the business and individual sectors; lack of consumer culture;
- Enforcement of the existing legislation: slow and ineffective procedures during criminal investigations and court procedures; difficulties in evidence gathering; lack of legal experience in IPR cases; copyright abuse in the regions causing gaps to occur between the interpretation of the legal texts in the different district courts;
- Insufficient control of the Internet content and the distribution of Internet providers (namely local LAN providers).

Recommendations:

What the awareness campaign of the Ministry of Culture has achieved – putting the copyright issue at the forefront of public attention – must be continued by adequate measures and carefully chosen action for sustainable effect.

- by emphasizing the losses to the national economy through provision of concrete data on the sector
- by drawing the public's attention to the economic advantages of the consumption and distribution of legal software products.

BMG

The leading business software distributor in Bulgaria which represents the major world software companies on the Bulgarian market.

Greatest achievements:

- Increasing business and revenues from its core activity – distribution of business software (as a production factor).
- Trend in Bulgaria towards entire product manufacturing, not only outsourcing and/or working out of software components.

Main issues and obstacles:

- Enforcement
- LAN networks, as an obstacle to the distribution of physical products
- Mass supply and distribution of illegal products.

Positive aspects for business from the use of legal software:

- lower risk for the products (for those firms using software as a production factor);
- stimulates more efficient use of their assets and enhances competitiveness.

BAMP

<http://www.bamp-bg.org/>

The Bulgarian Association of Musical Producers

A non-profit organization - members include Bulgarian producers of sound recordings and music videos. Founded in 1996, BAMP is the only organization, which represents and protects the neighboring rights of music producers in Bulgaria. The main priority of the association is to cooperate with the authorities in the process of fighting piracy in the field of music, including the pursuit of illegal sales of sound or video recordings and Internet piracy.

Greatest achievements:

- Significantly improved cooperation with the ministries of the Interior, Justice and Culture as well as NGOs, collecting societies and private business, in pursuit of illegal sales of unlicensed recordings.

Main issues and obstacles:

- Insufficient capacity for prosecuting IPR cases.

Virginia Records and Animato music

Greatest achievements:

The first company to offer licensed music products from Universal Music, and, despite market challenges, the two companies are convinced that there is great potential for the Bulgarian market to absorb music production as there is a long musical tradition in Bulgaria.

Main issues and obstacles:

- Low level of sales of original music in Bulgaria;
- Difficulties for Bulgarian musicians and producers to produce and sell locally-produced music;
- No distribution network, scarce opportunities for on-line sales;
- Physical sales outside the capital are high;
- Abuse of copyright and non-respect of collecting societies mainly by cable operators and private radio stations; few restaurants clubs or advertisers pay royalties;
- The level of public awareness is low.

BTV - the largest private TV broadcaster with national coverage

Greatest achievements:

- Leader in the national TV market in terms of transmissions of programs, movies, etc.
- Contracts with all the relevant collective societies;
- Close cooperation with the institutions responsible for media legislation.

Main issues and obstacles:

- The rapid development of new technologies outstrips legislation; issues such as mobile television still remain unregulated;
- Existing Bulgarian providers of TV by Internet may not cause problems for Bulgarian producers, but for channels paying royalties to import programs which could be watched for free on the Internet, this would be an obstacle.

The Economic Contribution of Copyright-Based Industries in Lebanon

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1. Executive Summary

There is a growing trend in international research demonstrating that the economic contribution of copyright-based industries is becoming increasingly important.

Copyright-based industries, according to the World Intellectual Property Organization (WIPO), are industries engaged in the creation, production and manufacture, performance, broadcast, communication, exhibition, or distribution and sales of works and other protected subject matter. WIPO also recognizes that the economic impact can relate to both core copyright industries (those producing goods that are copyright protected) and non-core copyright industries (those that support or are inter-related to core copyright industries). WIPO distinguishes between four sectors of copyright-based industries; core, interdependent, partial, and non-dedicated support copyright-based industries. The core and interdependent industries contribute 100 percent to GDP and employment while the partial and non-dedicated contribute to a lesser extent to GDP and employment figures. The latter two sectors are assigned copyright factors according to their reliance on copyright.

This study considers the total economic contribution of copyright-based industries to the Lebanese economy in 2005 in terms of their value added, contribution to GDP, share of employment, and share of foreign trade. Moreover, the nine sectors that constitute the core industries are studied in depth; Press and Literature, Motion Picture, Music, Arts and Visual Graphics, Photography, Radio and Television, Software, Advertising, and Copyright Collecting Societies.

The press and literature sector in Lebanon has the potential to maintain its commanding position in the region. The strength of the publishing industry lies in the diversity and high quality of products in three languages. The few dominant companies in this sector rely on their export capacity with most of their revenue generated from the sale of school textbooks, dictionaries, religious publications and books aimed at the general public.

Lebanon is certainly one of the countries with the greatest potential for developing a significant film industry especially with all the resources at its disposal such as education, availability of human resources and input. This sector however has been stagnant for a while mainly due to the difficulty of securing financing and strong competition from the US and Egyptian markets.

The music industry in Lebanon is one of the more flourishing sectors with its pool of talent, availability of professionals, and the excellent reputation of its musicians. This sector however suffers from a high level of piracy.

The software sector is an important part of the Lebanese economy. The Lebanese are known to possess the necessary knowledge and professionalism, and to offer high-quality products and services. However, the software industry is suffering from economic slowdown, restricted markets, intense local and regional competition, a brain-drain, lack of a coherent IT policy and incentives from the government, and a high level of piracy. The outlook for the industry in Lebanon depends primarily on the economic recovery of the country, clearly-defined government policies, an ongoing training and education program and the export potential of Lebanese companies.

The study reveals that the copyright industries contribute around US\$1,044 million to GDP with 53.31 percent generated from the core industries. 49,666 workers are employed in the copyright-based sectors with around 46.44 percent in the core industries. The copyright industries contribute 4.75 percent of GDP

and 4.49 percent of employment. The core industries contribute 2.53 percent of GDP and 2.11 percent of employment. The interdependent, partial, and non-dedicated support industries contribute around 0.71 percent, 0.62 percent, and 0.89 percent of GDP and 0.73 percent, 0.7 percent, and 0.95 percent of employment respectively.

The core copyright industries generated US\$555.52 million of value added. This value added is generated from the nine sectors that are made up as follows; Press and Literature (29.8 percent), Music, Theater, Opera (13 percent), Motion Pictures and Video (11.6 percent), Radio and Television (13.3 percent), Photography (1.8 percent), Software and Databases (15.3 percent), Visual and Graphic Arts (9.1 percent), Advertising (6.1 percent), and Copyright Collecting Societies (0.1 percent).

There are 6,236 operators in the core industries employing 23,364 workers. The workers are distributed among the nine core sectors in the following manner; Press and Literature (39.42 percent), Music, Theater, Opera (10.27 percent), Motion Pictures and Video (11.74 percent), Radio and Television (16.66 percent), Photography (1.99 percent), Software and Databases (10.51 percent), Visual and Graphic Arts (5.99 percent), Advertising (3.38 percent), and Copyright Collecting Societies (0.03 percent).

2. Introduction

Intellectual property activities act as a powerful driver for economic growth in Lebanon. The country offers highly educated, skilled and motivated individuals with a strong capacity to develop businesses, generate revenues, and promote investments in various fields of IP.

The creation of knowledge greatly depends on the protection of intellectual property. Property rights are defined as the ability of individuals to own, buy, sell and use their property in a market economy. Copyright protects the form of expression of ideas only, not the ideas themselves. Copyright products and goods have important social and cultural functions, but they also make significant economic contributions by generating economic value.

This study concentrates on copyright-based industries and their impact on the economy through their value added, contribution to GDP, their share of employment and of foreign trade. Copyright protects creative works such as a writer putting words on paper, a photographer taking a picture on film, or a software designer creating a code. Related rights include rights of performing artists, rights of television and radio broadcasters, rights of producers of phonograms, and rights of producers of motion pictures.

The ability to exploit the economic values related to the work or other subject matter is important for the rights holders of protected material. Some protected material, such as literary works, phonograms or computer software can be copied and reproduced relatively easily. Moreover, the growth of the Internet has made it possible to distribute works rapidly and extensively at little or no cost. Copyright protection is needed to ensure that the creator of a work or the rights holder of other subject matter is rewarded for the exploitation of the work or other production. By creating legal safeguards for protected material and by enforcing these protective legislative measures, laws, and legal enactments, nations can transform the development of copyright industries into important business sectors.

There is a growing trend of research demonstrating the increasing importance of the economic contribution of copyright-based industries and their impact on the Lebanese economy. These industries are major contributors to the country's GDP, employment, and foreign trade.

In 2003, WIPO published the *Guide on Surveying the Economic Contribution of the Copyright-Based Industries* to provide a methodology for measuring and assessing the impact of these industries on the development of the economy.

WIPO has defined copyright-based industries and grouped them into four main categories by extent of reliance on copyright activities. Copyright-based industries, according to WIPO, are industries that are engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subjects. It should be noted that the economic impact is not only from the core copyright-based industries, it could also be from other related industries such as interdependent, partial, and non-dedicated support industries.

The following table sets out types of works protected under most national copyright laws:

Category	Sub-categories
Literary works	Novels, short stories, poems, dramatic works and any other writings irrespective of their content, length, purpose, form, and whether published or unpublished...
Musical Works	Songs, choruses, musicals, operettas...
Artistic works	Drawings, paintings, sculpture...
Maps and technical drawings	Cartographic, plans, blueprints, diagrams, electrical and mechanical drawings
Photographic works	Portraits, landscapes, current events...
Motion pictures or cinematographic works	Silent or with soundtrack, irrespective of their purpose, genre, length, method employed, technical process used...
Computer programs and databases	Either as literary work or independently

3. Objective

Lebanon is the first country in the Middle East and North African Region to conduct a survey on the economic contribution of copyright-based industries and to evaluate the economic role of copyright-based industries in the national economy.

This study aims to evaluate qualitatively and quantitatively the performance of the copyright industries and the main problems these industries are currently facing.

The study assesses the impact of copyright industries on the national economy of Lebanon; quantifying the economic contribution of these industries in terms of their value added to the country's GDP as well as their contribution to employment and revenue generated from foreign trade.

The study also analyzes and elaborates on selected copyright based-industries of importance to Lebanon in terms of their national market structure, value chain, supply and demand patterns, labor market, policy framework, support from the public and non-governmental organization sector including the role of collective management societies and other copyright-related organizations, financing mechanisms, etc.

Finally, the study aims to propose an improved policy framework, strategy, and institutional interventions for the protection, development, and growth of this creative sector.

4. Methodology

In order to assess the economic impact of copyright based industries, the study will adopt WIPO's methodology and measure the economic contribution of industries in terms of four basic indicators:

- **Output** of all copyright-based industries
- **Gross Value Added** of all copyright-based industries in value and as a percentage of total GDP
- **Employment** in all copyright-based industries in value and as a percentage of total national employment
- **Foreign Trade** in major core copyright industries in value and as a percentage of total national foreign trade

4.1. Data Collection

The selected year for the survey is 2005 since it is the most recent year with comprehensive data. Despite political disturbances, this year could be considered as an adequate base period for the study.

The Central Administration of Statistics (CAS) used to publish the global statistics of the Lebanese economy including the GDP aggregates. These publications were interrupted by the 1975-1990 war and did not resume until the late 1990s. In fact, the Presidency of the Council of Ministers published the series of GDP aggregates for the period 1996-2004 between 2004 and 2007.

The GDP figures for the period 1996-2005 were computed using general estimates rather than detailed data. Therefore, the GDP figures could not be used as the basis for the study, but served as fundamental indicators to estimate the impact of the creative industries on the Lebanese economy. Hence, the data needed for the study had to be compiled from various sources.

The prime source was statistics collected and computed from tax declaration records by the Ministry of Finance.

The data collected from the Ministry are not made public and do not aim to compute GDP aggregates since the database covers only the turnover, the number of operators, and the number of employees and does not provide the value added by sector of activity. Moreover, the available data accounts only for the formal registered operators who declared their activities in 2005 and excludes informal or non-declaring operators. It should be noted that although this system contains rich and useful data; it is still in the early stages and is being progressively improved. Therefore, this source of information could provide a solid base for future updating of similar studies.

To enhance and adjust the collected data from the Ministry of Finance, the figures were revised and completed from other sources and publications. The main sources include Lebanon's economic accounts statistics for 2003 and 2004 published by the Presidency of the Council of Ministers, the Industrial Survey published in 2000 by the Ministry of Industry, studies conducted by the Ministry of Culture, figures from trade associations, NGOs and estimates from international organizations.

The missing and incomplete data, and specifically the ones related to value added, were computed through estimates, observations, surveys, interviews, focus groups, benchmarking and reference studies.

Two questionnaires have been designed for surveying companies and professionals in order to improve and confirm available data and to determine the appropriate level of economic contribution attributable to copyright industries.

A combination of numerical methods and intuitive qualitative analysis was utilized to derive copyright factors for the non-dedicated support industries where information and data are poor. Factors from previous studies were adopted and adjusted to reflect the characteristics of the Lebanese economy.

4.2. Classification System

The industrial classifications employed in the study are fully compliant with the International Standard Industrial Classification (ISIC) classifications suggested in the WIPO Guide. In fact, the data collected from the Ministry of Finance and the Central Administration of Statistics (CAS) in Lebanon is based on the ISIC classifications.

For more accuracy and to avoid double counting, the study utilized the 6-digit ISIC codes mainly for the core and interdependent copyright industries.

For the foreign trade of core products, the figures are based on the Harmonized System (HS) trade classification used by the Lebanese customs authorities rather than the classification of economic activities.

4.3. Estimation Issues

The problem of availability of reliable and complete data in developing countries such as Lebanon should be highlighted as any researcher must face the challenge of determining the accuracy of the measurable parameters.

Accurate estimates are almost impossible to make, mainly because statistics relating to GDP, value added, employment and income distribution by sector are meager and disaggregated in Lebanon. Difficulty in estimating could be mainly attributed to the following reasons:

- The identification of industries and their activities as relevant to copyright-based industries is not well defined.
- The number and importance of industries vary across time.
- A high number of informal activities in the cultural sector are not accounted for in official data compilations.
- Various seasonal cultural events executed on a part-time basis are not included in global statistics.
- Performers are not involved in their cultural occupation full-time and therefore their copyright-based activities are not reflected in the national accounts.
- Freelance activities carried out for other countries in the region, mainly the Gulf area, are not reflected in the available data. The volume of these activities is rapidly increasing due to their economic boom.

As the estimate of copyright-based industries is expanded to cover non-core copyright industries, data becomes less reliable. In fact, there is a trade-off between completeness and reliability. As suggested by WIPO, a conservative approach was adopted where estimates were needed in order to maintain credibility in findings, even though this may result in understating the importance of copyright-based industries for the Lebanese economy.

5. Defining the Copyright-Based Industries

The activities and industries which produce creations protected under copyright law and the industries that utilize such products are important economic factors that should be assessed as they generate value added.

WIPO has defined copyright-based industries and categorized them according to the extent of their reliance on copyright. WIPO has identified four main categories and 29 industries.

Creations and works protected by copyright do not carry equal weight in the different sectors of the economy. There are industries that are almost totally based on copyright-protected creative works (literature, music), while in other sectors copyrighted creations are only partly represented (the clothing industry, the jewelry industry) or have no role to play at all (machine-tool manufacturing).

The methodological guide published by WIPO distinguishes the following main categories of copyright-based industries depending on the extent of reliance on copyright. The four industries are core copyright industries, interdependent copyright industries, partial copyright industries, and non-dedicated support industries.

5.1. Core Copyright Industries

Core copyright industries are industries that are wholly engaged in the creation, production and manufacture, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.

Without copyright, core industries would either not exist or would exist in a different form. Therefore, for core industries **100 percent of the value added** is assigned as the copyright contribution to the national economy. Only that share of the distribution industry which is entirely dedicated to distributing copyrightable materials is included in the core copyright industries. These industries are classified into nine separate categories such as press and literature, music, theater and opera, motion picture and video industries. The following table displays the core copyright industries.

ISIC Codes			
Core Copyright Industries			
Press and Literature	Authors, writers, translators	9214	Dramatic arts, music and other arts activities
		7499	Other business activities (for transmission and integration)
	Newspapers	2212	Publishing of newspapers, journals and periodicals
	News and feature agencies	9220	News agency activities
	Magazines/ Periodicals	2212	Publishing of newspapers, journals and periodicals
	Book publishing	2211	Publishing of books, brochures and other publications
	Cards and maps, atlases and other published materials	2219	Other publishing
	Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	2221	Printing
		2222	Service activities related to printing
	Wholesale and retail of press and literature (book stores, news stands)	5129	Wholesale of other household goods
		5239	Other retail sale in specialized stores
	Libraries	9231	Library and archives activities
	Music, Theatrical productions, opera	Composers, lyricists, arrangers, choreographers, directors, performers and other personnel	9214
		9219	Other amusement activities
		9249	Other recreational activities
Writing and publishing of music		2213	Publishing of music
Production/manufacturing of recorded music		2220	Reproduction of recorded media
Wholesale and retail of recorded music (bulk and retail)		5234	Retail sale of household appliances, articles and equipment
		7130	Retail of personal and household goods
		5129	Wholesale of other household goods
Arts and literary councils and organizations		9214	Dramatic arts, music and other arts activities
Performances and other agencies (booking agencies, ticket agencies)		9214	Dramatic arts, music and other arts activities
Motion Pictures and Video	Writers, directors, actors, etc.	9214	Dramatic arts, music and other arts activities
	Motion picture and video production and distribution	9211	Motion picture and video production and distribution
	Motion picture exhibition	9212	Motion picture projection
	Video rentals and sales (including video-on-demand)	7130	Retail of personal and household goods
		9211	Motion picture and video production and distribution
	After services	2220	Reproduction of recorded media
Radio and Television	National radio and television broadcasting (terrestrial)	9213	Radio and television activities
	Other radio and television broadcasting	9213	Radio and television activities
	Independent producers	7499	Other business activities (for transmission and integration)
	Cable television (systems and channels)	9400	Telecommunications
	Satellite television	9400	Telecommunications
	After services	9213	Radio and television activities
Photography	Studios and commercial photography	7494	Photographic activities
	Photo agencies and services (photo-finishing services should not be included)	7222	Service activities related to printing
		7499	Other business activities (for transmission and integration)
		9231	Library and archives activities
Software and Databases	Programming, development and design, manufacturing	7221	Software publishing
		7229	Other software consultancy and supply
	Wholesale and retail prepackaged software (business programs, video games, educational programs, etc.)	5151	Wholesale of computers, computer peripheral equipment and software
	Database processing and publishing	7240	Database activities and on-line databases of sections, content
		7230	Data processing
	Visual and Graphic Arts	Artists	9214
Art galleries and other wholesale and retail		9214	Dramatic arts, music and other arts activities
Picture framing and other allied services		7494	Photographic activities
Graphic design		9214	Dramatic arts, music and other arts activities
		7499	Other business activities (for transmission and integration)
Advertising Services	Agencies, buying services (the price of advertising should not be included)	7430	Advertising
Copyright collecting societies	Copyright collecting societies	9112	Activities of professional organizations

5.2. Interdependent Copyright Industries

Interdependent copyright industries are industries that are engaged in the production, manufacture and sale of equipment whose function is wholly or primarily to facilitate and support the creation, production or use of works and other protected subject matter. TVs, radios, and musical instruments are examples of the seven interdependent copyright industries.

- Core interdependent are dependent on the availability of copyrighted works. (e.g., TV and TV programs)
- Partial interdependent comprise facilitation equipment. They are linked to multi-purpose technological devices that have other uses outside the use of copyrighted works and other protected subject matter.

The following table shows the interdependent copyright industries.

Interdependent Copyright Industries			
Core interdependent	TV sets, radios, VCRs, CD Players, DVD players, cassette players, electronic game equipment, and other similar equipment	3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods
		5139	Wholesale of other household goods
		5233	Retail sale of household appliances, articles and equipment
	Computers and equipment	7130	Renting of personal and household goods
		3000	Manufacture of office, accounting and computing machinery
		5151	Wholesale of computers, computer peripheral equipment and software
	Musical instruments	7123	Renting of office machinery and equipment (including computers)
		3692	Manufacture of musical instruments
		5139	Wholesale of other household goods
Partial interdependent	Photographic and cinematographic instruments	5233	Retail sale of household appliances, articles and equipment
		3320	Manufacture of optical instruments and photographic equipment
		5139	Wholesale of other household goods
	Photocopiers	5239	Other retail sale in specialized stores
		7129	Renting of other machinery and equipment
		3000	Manufacture of office, accounting and computing machinery
	Blank recording material	5159	Wholesale of other machinery, equipment and supplies
		2429	Manufacture of other chemical products
		5152	Wholesale of electronic and telecommunications parts and equipment
Paper	5233	Retail sale of household appliances, articles and equipment	
	2101	Manufacture of pulp, paper and paperboard	
	5149	Wholesale of other intermediate products, waste and scrap	
		5239	Other retail sale in specialized stores

5.3. Partial Copyright Industries

Partial copyright industries are industries in which a portion of the activity is related to works and other protected subject matter and may involve creation, production and manufacture, performance, broadcast, communication and exhibition or distribution and sales. These are comprised of 10 industries such as furniture, jewelry, games, and architecture.

5.4. Non-Dedicated Support Industries

Non-dedicated support industries are industries in which a portion of the activity is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries. The three industries in this category are wholesale and retail, transportation, and telephony and Internet.

The following table shows the non-dedicated support industries.

Non-dedicated Support Industries		
Non-dedicated Support Industries	General wholesale and retail	51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
		511 Wholesale on a fee or contract basis
		513 Wholesale of household goods
		515 Wholesale of machinery, equipment and supplies
		519 Other Wholesale
		52 Retail trade, except of motor vehicles and motorcycles, repair of personal and household goods
		521 Non-specialized retail trade in stores
		523 Other retail trade of new goods in specialized stores
		525 Retail trade not in stores
601 Transport via railways		
602 Other land transport		
61 Water transport		
62 Air transport		
630 Supporting and auxiliary transport activities		
6301 Cargo handling		
6302 Storage and warehousing		
6303 Other supporting transport activities		
6304 Activities of travel agencies and tour operators; tourist assistance activities		
6309 Activities of other transport agencies		
641 Post and courier activities		
6411 National post activities		
6412 Courier activities other than national post activities		
	Telephony and the Internet	6420 Telecommunications
		7240 Database activities and on-line distribution of electronic content

6. The Copyright Factor

The copyright factor is a percentage ratio expressing the share of copyright activities in a given industry; the figure indicates the extent of reliance of an industry on copyright. This indicator can take on values between 0 percent and 100 percent; products that are totally reliant on copyright take on a copyright factor value of 100 percent, whereas products that have no connection with copyright have a copyright factor value of 0 percent.

In order to obtain the value added, output, and the number of employees of copyright-based activities, the copyright factor is multiplied by the value added, output, and number of employees in the industry under study.

The value of the copyright factor in the core and interdependent copyright industries is 100 percent; economic activities in them depend in a fundamental way on copyright protection.

In order to determine the copyright factors for the Lebanese partial and non-dedicated industries, the copyright factors applied primarily by the US, Singapore, Latvian, and Hungarian studies have been utilized. These factors have been adjusted to reflect the specifics of the Lebanese economy.

Lebanon	
	Copyright Factor
Core Copyright Industries	
Press and literature	100%
Music, theatrical productions, opera	100%
Motion pictures and video	100%
Radio and television	100%
Photography	100%
Software and databases	100%
Advertising	100%
Copyright collecting societies	100%
Interdependent Copyright Industries	
Manufacture of TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment, and other similar equipment	100%
Manufacture of computers and equipment	100%
Manufacture of musical instruments	100%
Manufacture of photographic and cinematographic instruments	100%
Manufacture of photocopiers	100%
Manufacture of blank recording material	100%
Manufacture of certain types of paper	100%
Retail of certain consumer goods	100%
Wholesale and retail of interdependent copyright industries	100%
Partial Copyright Industries	
Apparel, textiles and footwear	2.00%
Jewelry	25.00%
Furniture	5.00%
Household goods, china and glass	2.50%
Wall coverings and carpets	2.50%
Toys and computer games	50.00%
Architecture, engineering, surveying	10.00%
Museums	50.00%
Wholesale and retail of partial copyright industries	5.00%
Non-dedicated Support Industries	
General trade	3.80%
General transportation, storage, communication	4.10%

7. Legal Framework

7.1. Milestones in the Development of Copyright Laws in Lebanon

The Ottoman Law on Privileged Works, enacted on September 11, 1872, was the first law to protect literary and intellectual property rights in Lebanon. During the French Mandate, High Commissioner General Weygand issued Resolution No. 2385, dated January 17, 1924, which regulated the literary and artistic property issues under Article 7, and thus, cancelled the Ottoman Law.

On June 28, 1934, the French Commissariat issued Resolution No. 141/L.R. aimed at implementing the Berne Convention for the Protection of Literary and Artistic Works in all states in the Middle East under French Mandate, including Lebanon. When Lebanon became independent, it joined the Berne Convention on September 30, 1947, and ratified its modifications introduced in Paris in 1971.

On March 1, 1943, the first Lebanese Criminal Code was promulgated. It set out in Articles 722 to 729 the penal sanctions for the infringement of literary and artistic property rights and the crime of piracy.

On July 17, 1959, Lebanon joined the Universal Copyright Convention (UCC) adopted in Geneva in 1951, in order to protect the intellectual property rights of Lebanese authors in countries which were not at that time parties to the Berne Convention, mainly the US and the Soviet Union.

On June 26, 1962, Lebanon signed the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations. However, this Convention did not become effective in the Republic of Lebanon until May 12, 1977, when it was ratified by the Lebanese Parliament.

Copyright and related rights in Lebanon remained regulated by Resolution No. 2385/1924, the Berne Convention, the Rome Convention, the Universal Copyright Convention and the Lebanese Criminal Code until 1999, when Law No. 75/99, on the Protection of Literary and Artistic Property, was issued. It cancelled Articles 137 to 180 of Resolution No. 2385 and Articles 722 to 729 of the Lebanese Criminal Code. The promulgation of the 75/99 Law was considered a significant achievement for the Lebanese legislative authority, for it produced a modern law to protect literary and artistic property 300 years after The Statute of Anne, the first intellectual property law in the world, issued in England in 1710.

On November 20, 2006, the Lebanese Government signed the Trade and Investment Framework Agreement with the US Government, which is the latest agreement in this field. This agreement has highlighted the intentions of both countries to encourage investment and trade in several fields including intellectual property.

It is noteworthy that Lebanon, although a member of WIPO since 1986, has not joined the WIPO Copyright Treaty (WCT), nor the WIPO Performances and Phonograms Treaty (WPPT), (known as the WIPO Internet Treaties) regulating the digital exploitation of copyrights. Legal amendments are currently being made to the 75/99 Copyright Law for Lebanon to sign the WCT and WPPT.

7.2. Legal Protection of Copyright and Related Rights in Lebanon

The new Copyright Law encompasses most of the legal principles and articles mentioned in the treaties and conventions relating to copyright and related rights to which Lebanon adheres. Moreover, this law regulates new issues that were not stipulated before in internal law, such as the protection of computer programs and data bases, the protection of television and radio broadcasting, especially through cable, and the organization of collective management for copyright and related rights. In general, the current Lebanese legislative framework for copyright and related rights is sufficient to protect these rights, provided it is implemented and enforced in a serious and effective manner by all authorities concerned.

The protection of copyright in Lebanon is based on the following nine main principles:

1. Automatic protection: A work is protected in Lebanon from the moment of its creation, without the need for the creator to carry out any formalities, make any deposit or proceeding, or pay any fee, contrary to the texts of the UCC and the Rome Convention.
2. The comprehensiveness of protection: The law protects every creation of the human mind regardless of its value, importance or purpose and the mode or form of its expression.
3. National treatment: Works originating from one of the states party to the Berne Convention, the Rome Convention, the Universal Copyright Convention, or the Arab League, must be given the same protection as that which Lebanon provides to its nationals for their works.
4. The independence of protection: Works are protected in Lebanon, regardless of the existence of protection in their country of origin.
5. Exclusive rights: Copyright and related rights holders shall have the exclusive right to decide on the divulgation and exploitation of their works. They shall have the sole right to define the manner and conditions of such exploitation and they shall have the exclusive right to authorize or prohibit the use, adaptation, sale, lease, distribution, recording, printing, fixation, translation, performance, modification, broadcasting, transmission or communication to the public of their works in any form.
6. The prohibition of assigning moral rights: This principle aims at protecting the authors – the weakest party in contracts – from inadvertently conceding their moral rights to other contractual parties. Any assignment or concession by the author of his moral rights, whether before or after finishing the work, is considered invalid.
7. The formal condition in contracts: Contracts related to the exploitation of copyright must be drawn up in writing; otherwise such contracts shall be invalid. Contracts should also set out in detail the rights assigned and the duration and territory of this exploitation. They should also state that the author will receive a share in the revenues from this exploitation which must be in favor of the author who will retain all rights that were not expressly mentioned in the contract.
8. The prohibition of assigning future works: The anticipated assignment by the author of his future works shall be considered as void. The objective of the principle is to protect the author from conceding in advance any future creations or works to another contractual party.

9. The restricted application of exceptions: Although legal texts set out some exceptions for the use, in specific cases, of copyright and related rights without the author's consent and without paying him any fee, this use is based on strict conditions that must be respected, otherwise such use will be considered an infringement of copyright.

In addition to the above-mentioned principles, several internal laws have been issued to further protect other aspects of copyright and related rights. The most important being the following:

1. **Customs Protection:** The law prohibits the exportation, importation and stocking of counterfeited works, or any other goods considered to be an infringement of copyright.
2. **Protection through Collective Management:** In accordance with the international principles set out above, the new copyright law lays down the rules for collective management in Lebanon. It allows copyright and related rights holders to establish and join companies and associations to manage their rights, license their works and collect royalties arising out of such exploitation.

There are two collective management societies for copyright and related rights:

- a) **SACEM:** The French Society of Authors, Composers and Music Publishers, SACEM, which has managed the collective rights of Lebanese authors since 1942 through its agency in Beirut where Lebanese authors and composers have joined and become members of the main company in Paris. SACEM manages their works and protects their rights in Lebanon and other countries that have signed mutual representation agreements with SACEM.
- b) **The Lebanese Association For The Production Of Sound Recordings:** With regard to the collective management of related rights in Lebanon, a new association has recently been founded in Beirut to manage the rights of the producers of sound recordings, under the name: The Lebanese Association for the Production of Sound Recordings. However, this Association has not yet started operating due to the absence of regulatory texts.

One of the major gaps existing in the current copyright law is the absence of implementing texts regulating the establishment and operation of collective management bodies in Lebanon. Such texts were to be issued in a decree adopted by the Cabinet, pursuant to the suggestion of the Minister of Culture and Higher Education, within three months from the publication of Law 75/99 in the Official Gazette, i.e. on July 13, 1999, at the latest. Such decree has not yet been issued and the Ministry of Culture is presently working toward the preparation and issuance of this measure.

3. **Regulation of TV and Radio Stations:** Law No. 382, dated November 4, 1994, regulates the establishment and operation of the audiovisual media in Lebanon. This Law prohibits the importation, manufacturing, installation or use of any TV or radio station or transfer of any of their equipment without first obtaining a license from the Cabinet after consultation with the National Council for Audiovisual Media.
4. **Protection through Avoidance of Double Taxation Agreements:** Although Lebanon has not joined the Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties (signed in Madrid on December 13, 1979), the Lebanese Government has signed agreements to avoid double taxation with 32 countries. The first agreement was signed with France in 1963 and the most recent with Turkey in 2006.

These agreements aim at exempting Lebanese copyright and related rights holders subject to taxation for the exploitation of their works outside Lebanon, from paying taxes again in Lebanon and vice-versa.

5. Protection of Performers: Performers in Lebanon enjoy legal protection under Law 75/99 and the Rome Convention, drawn up in 1961. According to these texts, performers hold the exclusive right to allow or prohibit the broadcasting or communication to the public of their unfixed performances on any tangible material, in addition to selling and leasing recordings of their illegally-fixed performance.

7.3. Enforcement of Copyright and Related Rights in Lebanon

When joining the Berne Convention and the Universal Copyright Convention, Lebanon pledged to take all necessary measures to guarantee sufficient and effective protection of the copyright and related rights holders in literary, scientific and artistic works. Hence, the new Copyright Law set out the enforcement measures to protect these rights and defined the sanctions in the event of any infringement.

1. Enforcement Measures under Existing Laws:

(a) Following the lead of all developed countries, the Lebanese Copyright Law considers the infringement of copyright and related rights a criminal act sanctioned by imprisonment for a maximum period of three years and a fine of US\$33,333 that could be doubled in the event of a recurrence. Hence, the imprisonment period under Lebanese law is the longest of all Arab countries.

(b) In addition to criminal sanctions, the Law obliges the infringer to pay fair compensation for the material and moral damages caused to the copyright or related rights holder, as defined by the courts, according to several elements, including: the commercial value of the work, the damage caused to the rights holder, the loss of profit, and the material profit enjoyed by the infringer.

(c) In parallel with the original sanctions, i.e. imprisonment, a fine and compensation, the Lebanese courts impose collateral sanctions according to the nature of the infringement and the infringer. They vary from the destruction of counterfeit copies and all equipment and machines used in their manufacture, the closure of the production facilities, the location, the commercial outlet, and the TV or radio station which infringed the copyright for a period of one week to one month.

Article 97 of the Copyright Law imposes the implementation of compulsory secondary sanctions in the sentence pronounced in infringement cases such as posting the details at places designated by the court and publishing the sentence in two local newspapers designated by the court at the expense of the infringer. In the event that the convicted party represents a newspaper, a magazine or a radio or television station, the sentence must be published in newspapers, magazines or broadcast on radio or television stations belonging to it.

(d) In order to facilitate the seizure of counterfeit works, Lebanese copyright law has expanded the working scope of the Judicial Police, by bringing the employees of the Intellectual Property Protection Office sworn in to that effect under the auspices of the police and customs officials. These employees shall perform their duties pursuant to an order or a mandate issued by the Public Prosecutor or the Intellectual Property Protection Office. Suspect products may be seized, inventoried and sampled wherever they are found.

(e) As for complaints against the copyright infringer, they can be made either upon the request of the copyright or related rights holder suffering damage, or the Public Prosecutor, or the Head of the Intellectual Property Protection Office. In these cases, a criminal complaint is filed against the infringer, who is then charged. At a preliminary stage, the Judicial Police officers launch an investigation into the infringer, who is then referred to the competent court to be judged and sentenced if found guilty.

2. Practical Obstacles facing the Recourse to the Judicial Authorities:

Copyright and related rights holders face many practical and material difficulties and challenges when resorting to the Lebanese judiciary. Some are related to judicial measures, others to the slowness of the investigation procedures, in addition to unfair compensation imposed by the courts:

(a) The first obstacle is usually the necessity to appoint a lawyer to represent the plaintiff in court, which assumes the ability to settle the lawyer's fees and the high judicial expenses incurred during the period of the trial.

(b) Criminal courts in Lebanon take a relatively long time to reach a sentence; legal action taken against copyright infringers often takes up to five years before the handing down of a final sentence.

(c) The stage that precedes the court hearing, i.e. the investigation and charge, can be difficult. In fact, filing a criminal complaint with the Public Prosecutor and referring it to the Judicial Police and police forces, in order to investigate it, takes at least one to two months. Meanwhile, the defendant has enough time to remove any trace of his infringement. In addition, offenders are frequently aware of a forthcoming raid by security officers, and thus have enough time to cover their tracks and disappear.

(d) The awarded compensation is not always equivalent to the damage caused and is not mandatory. This is why the author may refrain from resorting to the court in order to prevent the infringement of his rights at a future date.

(e) When the counterfeit products are not seized and inventoried, the author is unable to precisely define their value in order to prove the damage caused to him and the subsequent loss of profit. This leads to a sharp reduction in the awarded compensation.

(f) The judicial decisions do not provide for custodial sentences; they only impose fines and lay down the amount of compensation to be paid (other than in very rare cases).

3. Absence of Formalities in Lawsuits:

In the event of an infringement, the copyright or related rights holder shall immediately resort to judicial means and request cessation of the infringement and punishment of the offender, even without having deposited the infringed work at the Intellectual Property Protection Office.

4. Legal Preventive Measures:

Lebanese copyright law allows copyright and related rights holders to request that all preventive and precautionary measures be taken in order to prevent the infringement of their rights before the event, and to halt it after such infringement occurs. In such cases, they shall revert to the Judge of Expedited Matters to request a decision pursuant to their demand without calling the defendant, in order to prevent or cease the infringement of their rights. In addition, the law permits the plaintiff to request the court to provide for temporary measures while looking into the legal formalities, such as keeping the seized articles, inventorying them and appointing an official receiver for them.

The Court of Expedited Matters in Lebanon has responded to many requests presented by copyright or related rights holders in cases relevant to the violation of their rights. Among these violations were the infringement of the rights of TV broadcasters, authors and composers, sound recording producers, photographers and societies for the collective management of the rights of authors and composers. The majority of these decisions were issued with a compulsory fine applicable if they were not implemented of up to US\$50,000 for each violation. However, the temporary status of such a measure is not enough to prevent the infringement of copyright, for these decisions contain neither civil obligations nor criminal sanctions.

Several decisions have been handed down by the Lebanese courts ordering the cessation of copyright infringement with compulsory fines of up to US\$50,000 for each violation.

5. Judicial Sentences and Sanctions in Infringements:

Works that are most often pirated in Lebanon are sound recordings, movies, video games, books, publications, computer programs and broadcasts. Criminal courts have started to take into consideration the damage caused to authors and the seriousness of the crime when convicting the infringer. Infringers are being sanctioned by heavy fines which have recently reached US\$150,000. This reflects the intention of Lebanese authorities to fight piracy and protect copyright.

Several judges in Lebanon are now following developments in copyright issues throughout the world. Some of them are even becoming specialists in these matters, which allow rights holders to defend their rights in the courts and receive adequate compensation.

6. The Procedures of the Judicial Police:

In September 2005, a unit specialized in fighting intellectual property crimes affiliated to the Directorate of Internal Security Forces was set up and started work in March 2006. In that year, the unit undertook 500 seizure operations during which it seized 30,000 music cassettes, 50,000 music CDs and 80 machines for copying CDs.

There is no doubt that such steps effectively help to fight piracy and infringement of copyright in Lebanon. However, it is still essential to develop such units by increasing the number of officers and granting them wider prerogatives and powers in order to act faster and independently to investigate such crimes.

8. The Contribution of Copyright-Based Industries to the Lebanese Economy

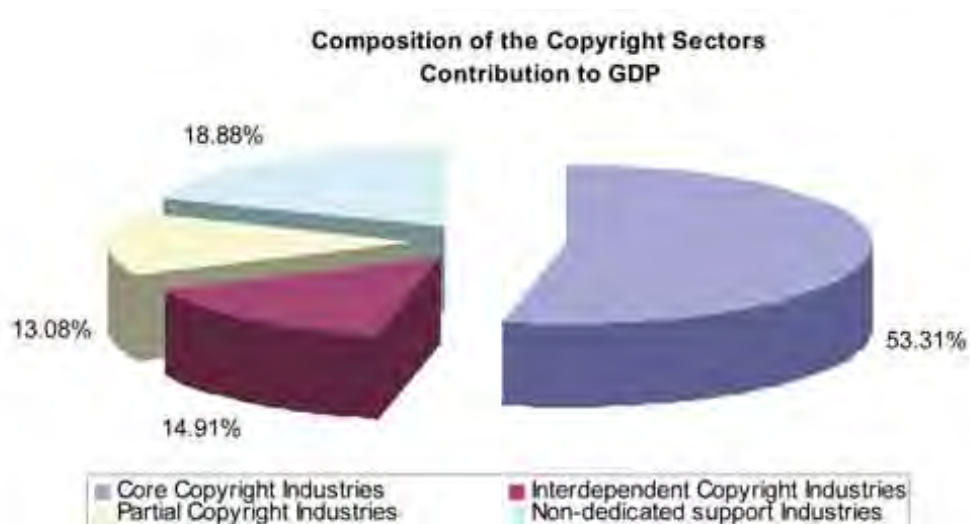
The creative sector has today firmly established itself as a vital component of the Lebanese economy, contributing substantially to its growth and social and cultural development. Data provide solid evidence of the growing importance of the creative industries, which are deeply rooted in copyright protection. These industries are at the same time generating wealth, creating jobs and promoting trade.

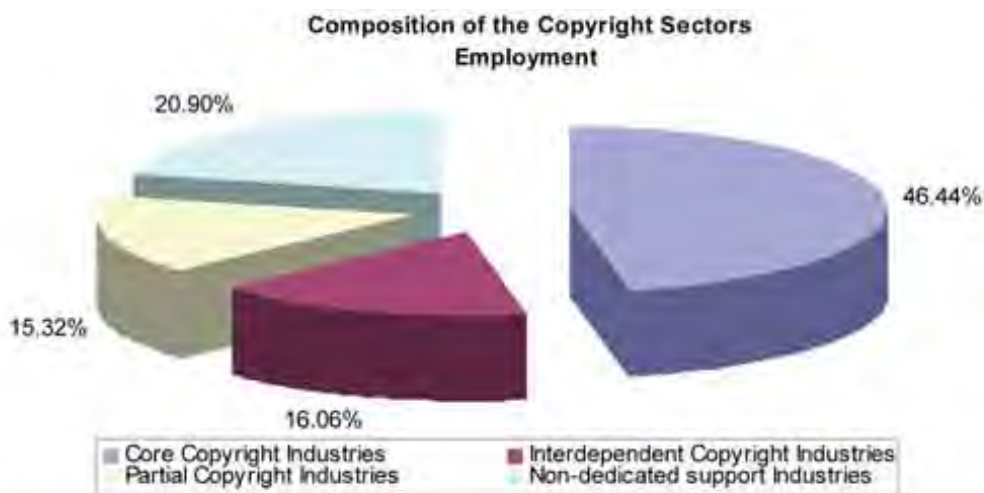
The industries as mentioned above are composed of four sectors; the core, interdependent, partial, and non-dedicated sectors. Core industries constitute the largest sector whether through contribution to GDP or employment of workers.

8.1. Composition of Copyright Industries

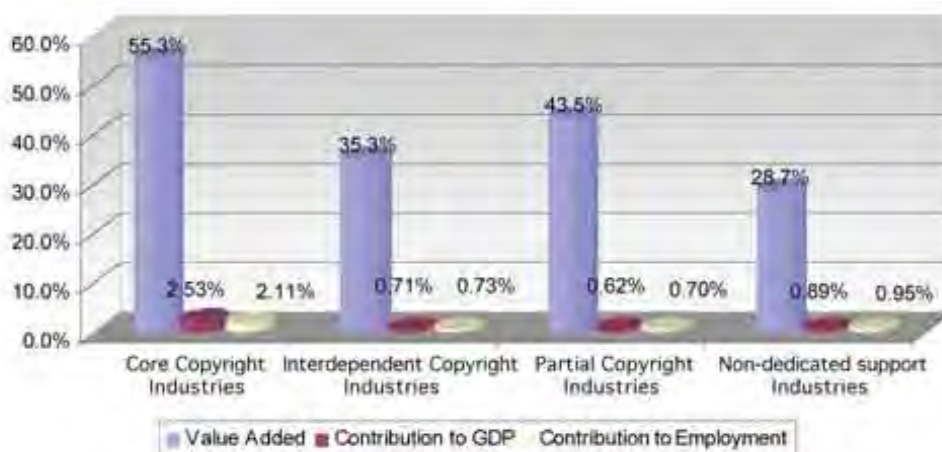
The copyright industry contributes around US\$1,044 million to the Lebanese GDP estimated at US\$21,987 million in 2005. The core industries represent 53.31 percent of the copyright industries' value added, the interdependent industries 14.91 percent, the partial industries 13.08 percent, and the non-dedicated support industries 18.88 percent.

There are 49,666 full-time workers and this includes employees and the self-employed. Workers in IP activities are distributed as follows: 46.44 percent, 16.06 percent, 15.32 percent, and 20.9 percent in the core industries, the interdependent industries, the partial industry, and the non-dedicated support industries respectively.





8.2. Contribution of Copyright Industries



The core copyright industries' turnover is estimated at US\$1,005 million, generating a value added of 55.3 percent and contributing around 2.53 percent to GDP. These core industries employ around 23,364 workers on a full-time basis and consequently contribute 2.11 percent to employment.

The interdependent industries generate a turnover of US\$440 million with a 35.3 percent of value added, and contribute around 0.71 percent to GDP and 0.73 percent to employment.

The turnover of the partial industries is around US\$4 billion generating 43.5 percent of value added equivalent to US\$1,740 million. The average copyright factor of the different activities of this sector is around 7.8 percent contributing around US\$136 million, which is equivalent to a 0.62 percent contribution to GDP. When this copyright factor is applied to the number of workers in the partial sector, it shows that 7,709 employment opportunities are created, constituting 0.7 percent of total employment in Lebanon.

As for the non-dedicated support industries, the total turnover in 2005 reached US\$17,762 million with a value added representing US\$5,094 million. For these activities, the copyright factor shows an average of 3.9 percent representing a US\$196.7 million contribution to GDP that is equivalent to 0.89 percent. Extrapolating this copyright factor to employment in the non-dedicated support industries results in almost 11,000 full-time opportunities, equivalent to 0.95 percent of total employment in Lebanon.

Table 1: Contribution of Copyright Industries to GDP

Industry	Turnover		Value Added		Contribution to GDP	
	In million dollars	In million dollars	%	Copyright Factor %	In million dollars	%
Core Copyright Industries						
Press and literature	373.4	165.8	44.4%	100%	165.8	0.75%
Music, theatrical productions, cinema	125.5	72.3	57.6%	100%	72.3	0.33%
Motion pictures and video	107.3	64.4	60.0%	100%	64.4	0.29%
Radio and television	124.0	73.8	60.0%	100%	73.8	0.34%
Photography	16.5	8.8	53.0%	100%	8.8	0.04%
Software and databases	129.0	85.1	66.0%	100%	85.1	0.39%
Visual and graphic arts	71.9	50.3	70.0%	100%	50.3	0.23%
Advertising	58.0	33.8	58.0%	100%	33.8	0.15%
Copyright collecting societies	0.5	0.4	80.0%	100%	0.4	0.00%
Total	1'005.2	555.5	55.3%	100%	555.5	2.53%
Interdependent Copyright Industries						
Manufacture of TV sets, radios, CD players, DVD players and similar equipment	4.0	2.4	60%	100%	2.4	0.011%
Manufacture of computers and equipment	5.0	3.0	60%	100%	3.0	0.014%
Manufacture of musical instruments	0.8	0.5	65%	100%	0.5	0.002%
Manufacture of photographic and cinematographic instruments	1.0	0.6	60%	100%	0.6	0.003%
Manufacture of certain types of paper	1.5	0.75	50%	100%	0.8	0.003%
Rental of certain consumer goods	15.5	9.3	60%	100%	9.3	0.042%
Wholesale and retail of interdependent copyright industries	365.4	138.9	38%	100%	138.9	0.632%
Total	440.0	155.4	35.3%	100%	155.4	0.707%
Partial Copyright Industries						
Apparel, textiles and footwear	321.3	146	45.3%	2.5%	3.6	0.02%
Jewelry	270.0	108	40.0%	25.0%	27.0	0.12%
Furniture	165.0	74	45.0%	5.0%	3.7	0.02%
Household goods, china and glass	254.0	119	47.0%	2.5%	3.0	0.01%
Wall coverings and carpets	80.0	36	45.4%	2.5%	0.9	0.00%
Toys and computer games	3.0	2	50.0%	50.0%	0.8	0.00%
Architecture, engineering, surveying	670.0	570	85.0%	10.0%	66.9	43.58%
Museums	15.0	9	60.0%	50.0%	4.5	0.02%
Wholesale and retail of partial copyright industries	2221.1	677	30.5%	5.3%	36.0	0.18%
Total	3'999.4	1'740.3	43.5%	7.8%	136.4	0.62%
Non-dedicated Support Industries						
General trade	13'890.7	3'481.0	25%	5.8%	191.3	0.60%
General transportation, storage, communication	3'868.6	1'612.8	42%	4.1%	66.4	0.30%
Total	17'762.1	5'093.8	28.7%	3.9%	196.7	0.89%
Total Copyright Based Industries	23'206.7	7'545.0	32.5%	4.5%	1'044.1	4.75%
Total of National Economy					21'987.00	

Table 1: Contribution of Copyright Industries to Employment

Industry	Operators	Contribution to Employment	
		workers	%
Core Copyright Industries	No.		
Press and literature	2'578	9'210	0.83%
Music, theatrical productions, opera	1'237	2'400	0.22%
Motion pictures and Video	852	2'743	0.25%
Radio and television	110	3'892	0.35%
Photography	255	465	0.04%
Software and databases	527	2'456	0.22%
Visual and Graphic Arts	630	1'400	0.13%
Advertising	51	790	0.07%
Copyright collecting societies	1	8	0.00%
Total	6'241	23'364	2.11%
Interdependent Copyright Industries	No.	workers	%
Manufacture of TV sets, radios, CD players, DVD players and similar equipment	30	190	0.02%
Manufacture of computers and equipment	40	480	0.04%
Manufacture of musical instruments	5	55	0.00%
Manufacture of photographic and cinematographic instruments	3	70	0.01%
Manufacture of certain types of paper	12	65	0.01%
Rental of certain consumer goods	210	690	0.06%
Wholesale and retail of interdependent copyright industries	1'419	6'530	0.59%
Total	1'719	8'080	0.73%
Partial Copyright Industries	No.	workers	%
Apparel, textiles and footwear		300	0.03%
Jewelry		474	0.04%
Furniture		310	0.03%
Household goods, china and glass		197	0.02%
Wall coverings and carpets		39	0.00%
Toys and computer games		69	0.01%
Architecture, engineering, surveying		2'884	0.26%
Museums		79	0.01%
Wholesale and retail of partial copyright industries		3'359	0.30%
Total		7'709	0.70%
Non-dedicated support industries	No.	workers	%
General trade		8'024	0.72%
General transportation, storage, communication		2'489	0.22%
Total		10'513	0.95%
Total Copyright Based Industries		49'666	4.48%
Total of National Economy		1'109'000	

Note: Operators include establishments and individuals
 Workers include employees and the self-employed

8.3. Foreign Trade

The available official statistics are on visible trade and the import and export of goods like books, paintings, equipment, etc. rather than on invisible earnings like services from live performances or revenues from the film or music publishing industries.

The core activities imports are around US\$68.6 million constituting 0.73 percent of total national imports.

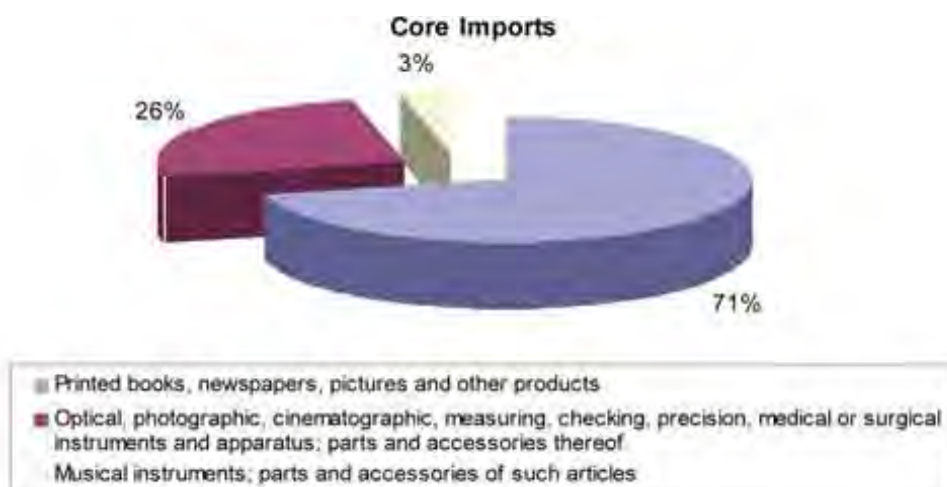
The core exports amount to US\$36.6 million constituting around 1.95 percent of total exports.

Exports and Imports in thousand USD	Import	% Total	Export	% Total
Printed books, newspapers, pictures and other products	48'711	0.52%	35'930	1.911%
Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	17'572	0.19%	634	0.034%
Musical instruments; parts and accessories of such articles	2'333	0.02%	69	0.004%
Total Copyright-Based Industries	68'616	0.73%	36'633	1.949%
Total National Economy	9'339'859	100.00%	1'879'764	100.00%

Core Imports

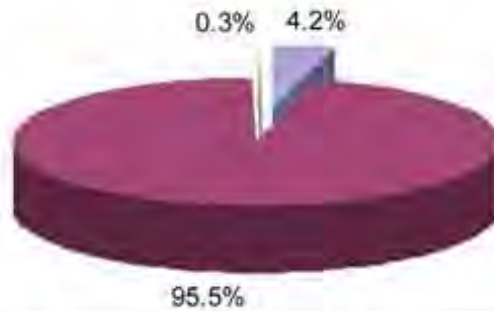
The largest imports sector is that of printed books, newspapers and other similar products constituting around 71 percent of total core imports.

Imports related to photography constitute around 26 percent of total core imports while the music industry only accounts for 3 percent of total core imports.



Core Exports

The bulk of core exports is composed of photography-related items constituting around 95.5 percent of total core exports. Press-related items represent 4.2 percent of core exports while music-related items represent 0.3 percent of total core exports.



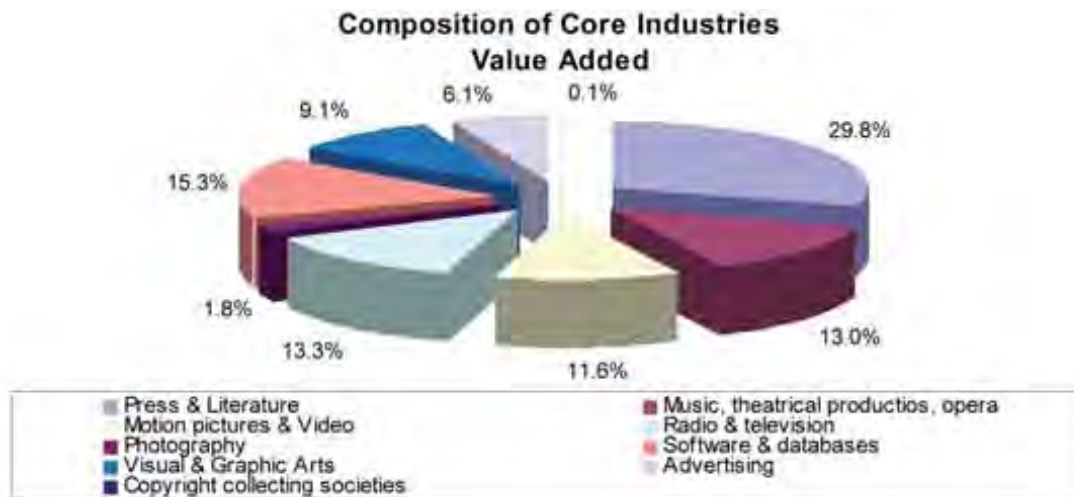
■ Printed books, newspapers, pictures and other products
■ Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof
■ Musical instruments, parts and accessories of such articles

Short Description	Imports	Exports
Photography	17,572	634
Photographic plates and film in the flat...	7,160	40
Photographic film in rolls, sensitized, unexposed	3,947	58
Photographic paper, paperboard and textiles	2,469	15
Photographic plates, film paper, paperboard...	7	0
Photographic plates and film, exposed and developed...	11	83
Cinematographic film, exposed and developed	1,205	442
Chemical preparations for photographic uses	2,773	16
Total printed books, newspapers, pictures and other	48,710	35,930
Printed books, brochures, leaflets	27,395	35,480
Newspapers, journals and periodicals	7,859	2,465
Children's picture, drawing or coloring books	112	11
Music, printed or in manuscript	7	0
Maps and hydrographic or similar charts of all kinds...	26	13
Plans and drawings for architectural engineering...	7	130
Unissued postage, revenue or similar stamps of currency...	7,305	2,661
Transfers (decalscomentes)	1,280	1
Printed or illustrated postcards, printed cards	267	1,130
Calendars of any kind, printed, including calendar	211	288
Other printed matter, including printed pictures	4,220	3,751
Music	2,333	69
Pianos, including automatic pianos; harpeichords	685	21
Other string musical instruments	279	2
Keyboard pipe organs, harmoniums and similar keyboards	54	0
Accordions and similar instruments; mouth organs	9	2
Other wind musical instruments	32	1
Perussion musical instruments	158	4
Musical instruments	685	27
Musical boxes, fanground organs	9	11
Parts (for example, mechanisms for musical boxes)	214	1
Total	2,333	36,633

8.4. The Core Copyright Industries

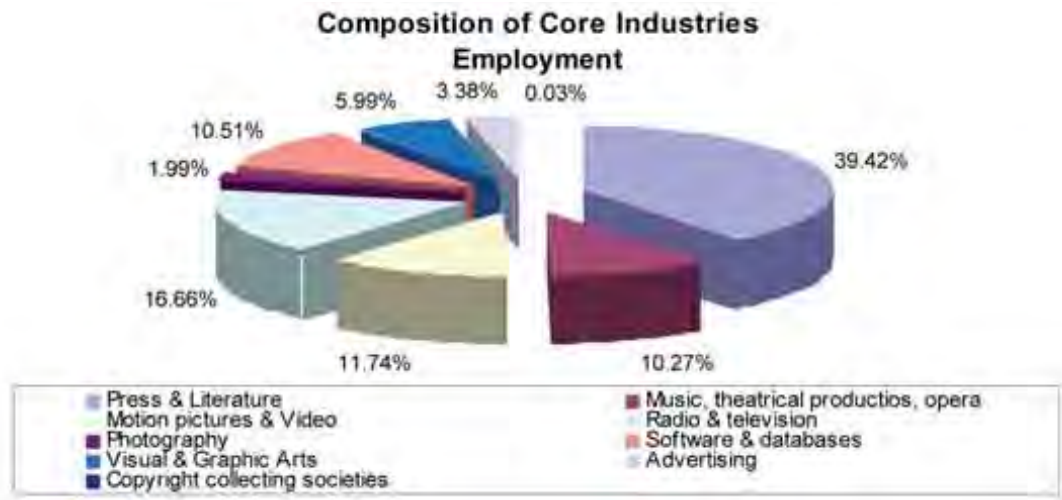
The core copyright industries generated around US\$555 million of value added. The contribution of the nine sectors comprising the core copyright industries is made up as follows:

1. Press and Literature (29.8 percent)
2. Music, Theater, Opera (13 percent)
3. Motion Pictures and Video (11.6 percent)
4. Radio and Television (13.3 percent)
5. Photography (1.8 percent)
6. Software and Databases (15.3 percent)
7. Visual and Graphic Arts (9.1 percent)
8. Advertising (6.1 percent)
9. Copyright Collecting Societies (0.1 percent)



In the core industries, the number of operators is 6,236 which includes companies and individuals. The operators employ a total of around 23,364 workers (employees and the self-employed) distributed among the nine core sectors as follows:

1. Press and Literature (39.42 percent)
2. Music, Theater, Opera (10.27 percent)
3. Motion Pictures and Video (11.74 percent)
4. Radio and Television (16.66 percent)
5. Photography (1.99 percent)
6. Software and Databases (10.51 percent)
7. Visual and Graphic Arts (5.99 percent)
8. Advertising (3.38 percent)
9. Copyright Collecting Societies (0.03 percent)



8.5. Press and Literature

8.5.1. Overview

Before the 1975-1990 Civil War, Lebanon was the leader of the book industries in the Middle East, with a well-established private publishing industry. Due to the instability prevailing at that period, and its adverse impact on the physical amenities of firms and decline in purchasing power of the Lebanese, sales decreased and many companies failed to survive.

After the war, the printing and publishing industry regained some of its dynamics, but remained subject to new and difficult market conditions, high operational costs and emerging competition from other countries in the region, especially Egypt, Saudi Arabia, and other Gulf states.

One of the most significant advantages for Lebanon is that it has the highest literacy rate in the Arab world at around 90 percent, a relatively well-qualified labor force and active entrepreneurs.

8.5.2. Industry Structure

Many firms operate in the market with few dominating it. In the publishing sector four or five publishers generate more than 50 percent of the output. Among bookstores, around 12 market leaders account for more than two-thirds of the total sales volume. The market share of the large bookshops has been increasing in the last two years at the expense of small outlets.

Players in the book industry in Lebanon are authors, publishing houses, printing houses, distributors and retailers. There are a number of related official associations: the Union of Authors, two unions of publishers (books and school textbooks), the Union of Printing Houses, the Union of Booksellers, the Union of Book Importers and the Press Union. The main participants in the Lebanese publishing scene belong to these unions.

Most of the 650 authors write in Arabic but very few of them succeed in Lebanon due to several factors such as the low income expected from writing books, the economic crisis, and the general indifference to culture and reading.

There are 520 publishing houses; however, fewer than 10 private publishing houses control more than 50 percent of the market and around 50 publish in foreign languages, mainly English and French.

Lebanon's printing industry has always occupied a leading position in the Arab world, having been the "printing press" of the region for more than one hundred years: there are 500 printing houses in Lebanon. Around 80 pre-press, printing, and post-press workshops are considered to be active printing operators.

There are 265 retailers and bookshops operating in Lebanon mainly concentrated in the Beirut area. Many bookshops did not survive the economic crisis; they either closed down or added more profitable items such as stationary, toys, fashion items, DVD rentals, and lotteries to their range.

8.5.3. Market Trends

The Lebanese market has diversified: books and magazines are published in the three languages spoken and read in the country, namely Arabic, French, and English. Publications in Arabic represent the largest share of total production. Moreover, the market is expanding into new areas such as brochures, technical publications, advertising and educational materials.

The printing industry has an output of around US\$85 million a year.

In publishing, more than 50 percent of the output is exported due to the small size of the domestic market and a constant and growing demand from the Arab world.

The production of school textbooks and the translation of related publications for children constitute the major activity of Lebanese publishers.

A significant demand exists for foreign non-Arab-language books and magazines, mainly in French and English. This demand is not only generated by the better educated segment but also by the whole population since school and university curricula are based on the French and English systems.

Imported books do not compete with local publications in Arabic, as the products and markets are completely different. Lebanon imports books mostly from France, the US and the UK.

As far as exports are concerned, the market for Lebanese books is evenly distributed among a few Arab countries (UAE, Saudi Arabia, Iran, Jordan). Iraq was an important outlet which disappeared due to market changes after the Western embargo. Exports of books and brochures remained stable from 1997 to 2000. A steady increase has been recorded since 2001.

Selected Countries	1997	2001	2003	2004	2005	2006
United Arab Emirates	631	618	2,214	2,474	2,250	2,794
Saudi Arabia	2,503	584	5,176	4,427	4,618	3,851
Yemen	1,090	48	408	940	863	525
Iran	948	670	327	225	382	462
Jordan	465	515	3,427	1,452	1,839	2,776
Syria	76	98	582	997	4,468	3,836
Egypt	500	1,481	1,507	1,754	2,135	3,007
Algeria	402	533	1,487	2,119	2,380	2,562
Tunisia	591	234	874	970	860	956
Morocco	1,734	726	1,785	1,817	1,917	2,217
Libya	233	600	508	295	279	141
France	888	278	857	783	1,542	1,780
Italy	2,096	8,953	540	25	7	2
United Kingdom	209	489	646	1,229	1,334	1,767
United States	134	311	326	262	244	342
Other Countries	2,990	2,848	8,538	9,922	11,031	14,525
Total Exports	15,490	16,986	29,180	29,691	35,929	41,542

The major Lebanese publishing houses, well-known in the Arab world, rely heavily (up to 75 percent of their production) on exports, mainly of school textbooks, dictionaries and cultural books. Profit margins have been reported to remain static for exported books, but publishers aim at expanding foreign markets and utilizing economies of scale to increase profits.

8.5.4. Employment

The sector constitutes 2,578 operators employing 9,210 workers. Incomes are low compared with other sectors which require comparable skills and responsibilities.

Companies here suffer from the lack of trained employees since there are either no or weak formal education programs in post secondary institutions in Lebanon for this sector.

Unions and professional associations, which purport to help the publishing sectors, have a limited active role in dealing with industry concerns and problems and in developing the profession. Statistics and databases of companies and products, which could help identify the problems and the needs of the industry are poor or incomplete.

8.5.5. Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> ▶ Lebanese publishers enjoy a good reputation. ▶ The strength of the publishing industry lies in the diversity and high quality of its products in three languages. ▶ Very well-known international publishers are represented in Lebanon, with many brand name titles. ▶ Prompt delivery is a major asset for printing houses. 	<ul style="list-style-type: none"> ▶ Competent professionals are hard to find, sources of information are deficient. ▶ The obstacles to exports are high fixed costs - a minimum volume has to be ensured - censorship and restrictions imposed by religion in some Arab countries, and the lack of exclusive representation abroad. ▶ The slowdown of economic activity in Lebanon is adversely affecting growth and investment in the publishing sector. ▶ Printing houses do not have budgets for marketing.

8.5.6. Economic Impact

The sector generated US\$373.5 million of turnover and US\$165.78 million of value added. The copyright factor for this sector is considered to be 100 percent due to its total reliance on copyright.

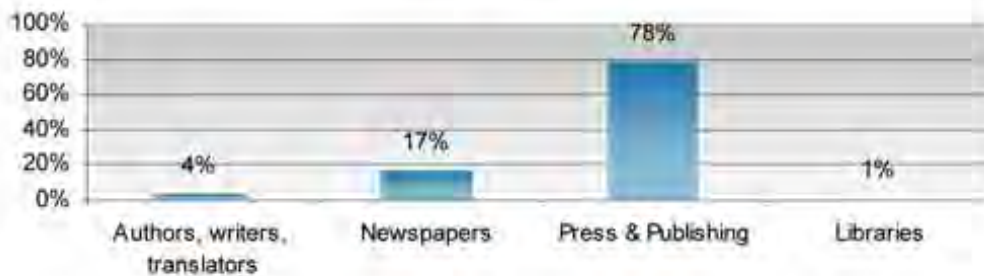
School and university textbooks, dictionaries and reference works generate the highest percentage of sales. However, income is also generated from sales of political, historical, and religious works. Foreign literature sells better than Arabic literature, indicating the preferences of the majority of Lebanese readers. The expected yearly sales figure for a foreign book on the local market varies from 800 to 1,000 copies and can reach 2,000 copies for a well-known author. New publications in Arabic sell only between 200 and 400 copies.

The markets for school textbooks and cultural and practical books are far more profitable. Publishers start with 5,000 copies and frequently reprint. Dictionaries and school textbooks represent more than 50 percent of the output of the three largest publishing houses in Lebanon.

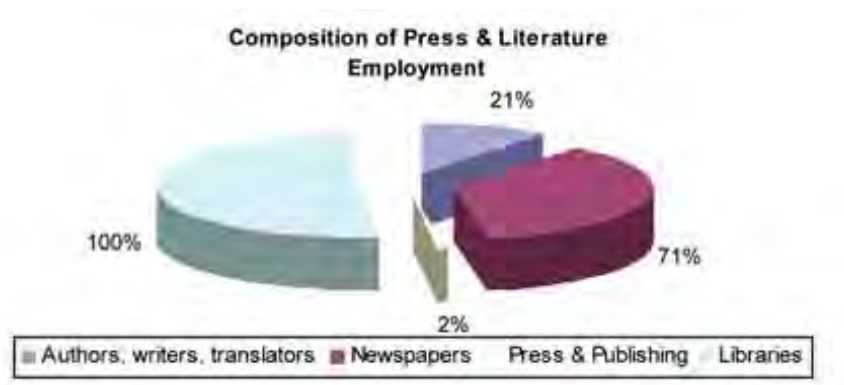
The press and literature sector contributes on average 0.75 percent to GDP.

	Contribution to GDP (in million USD)	Number of Workers
Press and Literature		
Authors, writers, translators	7	650
Newspapers	55	1,900
Press and publishing	309	6,510
Libraries	4	150
Total	374	9,210

**Composition of Press & Literature
Value Added**



The sector consists of 2,578 operators and employs 9,210 workers. Press and literature contributes around 0.83 percent to employment.



8.6. The Motion Picture Industry

8.6.1. Overview

This sector encompasses film showing and making.

In recent years the number of cinemas has risen and is now close to 100. Most have state-of-the-art audio and visual equipment and show the latest releases (90 percent of the market), while the rest still depend on basic equipment and show old movies. *Circuit Empire* (41 outlets) and *Circuit Planète* (26 outlets) operate the majority of movie theaters; the rest are independent. In 2005, the *Circuit Empire* group was the market leader in film distribution with a 65 percent market share.

Film production in Lebanon has been meager throughout its recent history. After experiencing a golden age between 1929 and 1957, when 500 films were produced, and then stabilizing its output to seven or eight films a year, the film-making industry has been unable to turn out more than one or two films a year since 1990.

8.6.2. Industry Structure

American movies represent 95 percent of the Lebanese market. US film studios have local agents who sell the rights to the movie theaters. In Lebanon the two largest distribution companies (*Circuit Empire* and *Circuit Planète*) own 90 percent of all cinemas and at the same time control almost all of the market. While the war had a serious impact on business, these companies have made a comeback since it ended.

Film-making in Lebanon has always consisted of a few individuals struggling desperately to produce a film without government support. The film-making industry is so limited that market analysis is not relevant. Although the human factor (performers and technicians) is available, the absence of infrastructure, the shortage of funds, the absence of government support, censorship, obstacles to entering the Arab markets and the lack of outlets are major problems in its development. Moreover, neither the Lebanese public nor the local film distributors support the industry by attending or distributing Lebanese films. They are totally influenced by the international trends that favor American movies.

8.6.3. Market Trends

Personal relations are very important for securing new projects. Production houses make films on demand, and this depends on the general condition of the market for consumer products and the general economic health of the country. In the last two years local demand has fallen owing to economic stagnation, and many production houses have been working below capacity.

Some large firms generate about 95 percent of their business volume abroad. Major clients are in the Gulf, and the regional market is still expanding with the growth of satellite TV.

The cinema market in Lebanon is limited to the same 200,000 to 250,000 filmgoers who watch movies regularly. The demand is seasonal with peaks in winter, especially in January, when a large number of new movies are usually released, and smaller audiences in June, when students are taking their final exams and when outdoor activities are preferred. Moreover, people prefer to watch a DVD, most frequently pirated, imported from Asia or illegally produced locally, rather than go to see a movie at the cinema.

There is a lack of interest in locally-produced movies. Local demand has never been sufficient to help the film-maker cover the cost of producing his film.

8.6.4. Employment

The whole motion picture industry consists of around 852 operators employing around 2,743 workers. There are around 450 to 500 actors and creators (actors, writers, directors, etc.). The film production and video, film distribution and cinema industries, and the allied services, video rental, and sales employ around 1,500 workers, 350 and 500 workers respectively.

Most of the employees are skilled and specialize in film and video production. There are, however, a few unskilled workers in the film distribution and rental sector.

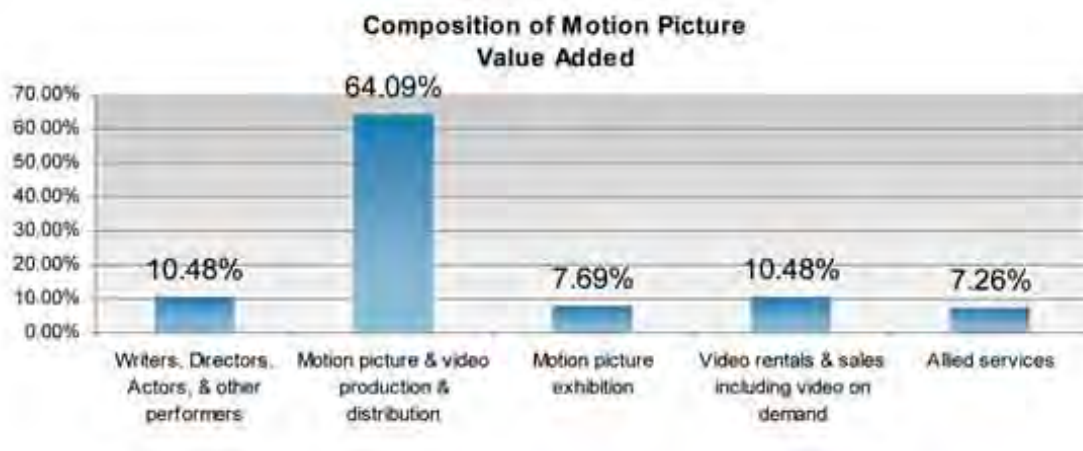
8.6.5. Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> ▶ In the region, Lebanon offers the best quality of service at a competitive price because the related costs are low. ▶ Lebanon now has an impressive number of film schools and programs which are constantly supplying the market with new blood and resources. Lebanon thus has a strong advantage compared with some Arab countries that have no facilities for preparing students in this field. 	<ul style="list-style-type: none"> ▶ Lack of interest in locally-produced movies on the part of the Lebanese. ▶ People prefer to watch a DVD, most often pirated, rather than go to the cinema. ▶ Insufficient financing capacities for film production considered to be a high risk business. ▶ Obstacles to film distribution in the Arab region. ▶ Film directors are available but there is a dearth of technicians and semi-skilled employees. The Gulf market is very attractive for the Lebanese film industry.

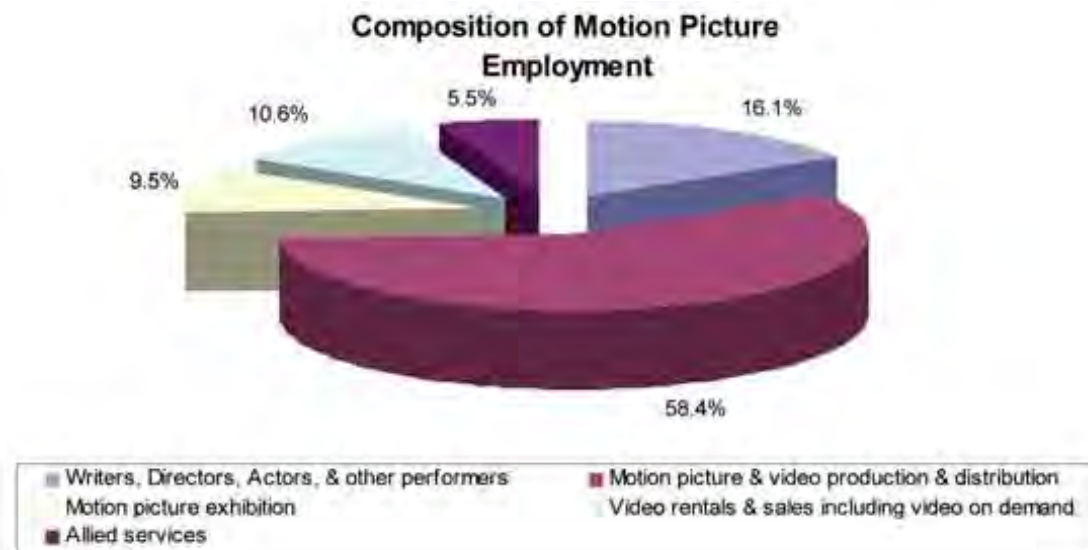
8.6.6. Economic Impact

The sector generated US\$104 million of turnover and US\$64.4 million of value added. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.29 percent to GDP.

Copyright Industries	Contribution to GDP (million USD)	Number of Workers
Writers, directors, actors, and other performers	7	441
Motion picture and video production and distribution	41	1,601
Motion picture exhibition	5	260
Video rentals and sales including video on demand	7	291
Allied services	5	150
Total Motion Picture and Video	64	2,743



The sector consists of 852 operators employing 2,743 workers. The sector contributes around 0.25 percent to employment.



8.7. Music, Theater, Opera

8.7.1. Overview

The music business has been steadily growing and improving for the past 50 years as new players have been modifying its output. Lebanon's music industry has the potential to become one of the leading music industries in the Arab world. People in the business are expanding as far as they can into new, untapped markets in Syria, Jordan, Tunisia, Morocco and Algeria.

The music industry in Lebanon is attracting substantial investment from abroad, but as in many other sectors, obtaining accurate numbers and statistics is a virtually impossible task. A decline has been noticed in terms of sales of recorded music attributed to piracy and to the economic crisis that the country is enduring.

8.7.2. Industry Structure

The music production sector in Lebanon consists of many firms with a few dominant ones, mainly the representatives of the international production houses and the Saudi-owned Rotana. The former are also the largest importers of foreign-branded records. The dominance of the star performers makes market access difficult, although there are no restrictions on new entrants.

Lebanese, Arabs and representatives of international companies share the music market in Lebanon: a Saudi-owned firm owns 80 percent of the Arab repertoire. Each of the five main international music companies, Sony Music International, EMI, BMG, Warner Music and Universal Music, controls about 15 to 20 percent of the music played in Lebanon. A small share of the market remains in the hands of small, privately-owned Lebanese studios.

Being the "identifiers" of talent, agents are not in direct competition with the major production companies, which deal with established performers. They have thus also grown substantially in the past few years, seeing their returns improve and the numbers of their employees grow.

Concerts are the big money-spinners. A popular performer can charge up to US\$35,000 for a one-night performance in the Gulf, and US\$20,000 in Lebanon. Concerts for Arab singers have seen their popularity and audiences increase in the past few years with the growing popularity of Arab music among Lebanese and Arab youth. Concerts for foreign performers have been stagnating if not decreasing, given the relatively high costs incurred in promoting such events, and the difficult economic situation affecting purchasing power.

8.7.3. Market Trends

The level of domestic demand is far below the expectations of music producers, who aim to cover the cost of production and promotion and make a profit. Piracy is the main reason why demand is low as it costs the market an estimated half of all potential sales. Apart from that, the economic recession is severely limiting the amount of income individuals have available to spend on recorded music and entertainment.

The real return on the music publishers' investment comes from their foreign sales, given the growing popularity of Lebanese performers in other Arab countries, where intellectual property laws are in place and sales can be controlled. Other markets are made up of Lebanese expatriates. Lebanese producers target mainly Saudi Arabia and Egypt. CDs sell better than cassettes in the Gulf, while in Egypt cassettes are more

in demand. Lebanese music is not always easy to sell in Egypt, where there is a strong preference for local music. With the recent worldwide trend in favor of Arab music, Lebanon can now find buyers as far afield as the Far East. One Lebanese music producer has been able to export to Japan: the quantity might be small, but it is by no means insignificant.

Imports of international music have grown substantially in recent years. This can be attributed to several factors, including the increasing number of retail stores, the opening of the Virgin Megastore, the removal of customs duties and the younger generation's wider taste in music.

8.7.4. Employment

In 2005, the sector employed around 2,400 workers. A substantial labor force is available for the music industry in Lebanon, especially for oriental music, both as artists and technicians. The expansion that the Lebanese National Conservatory has witnessed has led to major improvements in the skills of the work force. From singers to all types of musicians, a large pool of labor is available at a reasonable cost.

8.7.5. Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> ▶ Lebanon's music industry has the potential to become one of the leading music industries in the Arab World with the local and regional recognition of talent. ▶ The expansion that the Lebanese National Conservatory has witnessed has offered major improvements in the skills of the work force. 	<ul style="list-style-type: none"> ▶ The market is dominated by one major player accounting for almost 90 percent of production and reliance on the main singing stars. ▶ The domination of star performers makes market access difficult.

8.7.6. Economic Impact

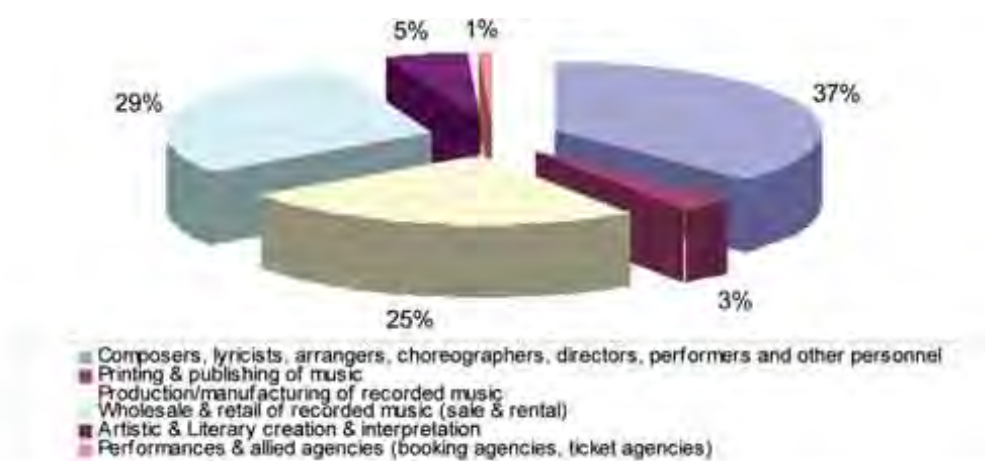
The sector generates US\$125.5 million of turnover and US\$72.26 million of value added. One Arab-owned company dominates the market with a total share of 90 percent. The sector has witnessed a decrease in local sales due to pirated CDs. Most of the revenues are generated from sales abroad specifically in the Gulf region where IP is better enforced and regulated. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.33 percent to GDP.

Copyright Industries	Contribution to GDP (in million USD)	Number of Workers
Composers, lyricists, arrangers, choreographers, directors, performers and other personnel	50	895
Printing and publishing of music	1	75
Production/manufacturing of recorded music	10	600
Wholesale and retail of recorded music (sale and rental)	9	690
Artistic and literary creation and interpretation	2	120
Performance and allied agencies (booking agencies, ticket agencies)	1	20

Copyright Industries	Contribution to GDP (in million USD)	Number of Workers
Total music and theatrical productions, operas	72	2,400
Composers, lyricists, arrangers, choreographers, directors, performers and other personnel	50	895
Printing and publishing of music	1	75
Production/manufacturing of recorded music	10	600
Wholesale and retail of recorded music (sale and rental)	9	690
Artistic and literary creation and interpretation	2	120
Performances and allied agencies (booking agencies, ticket agencies)	1	20

The sector consists of 1,237 operators employing 2,400 workers. The sector contributes around 0.22 percent to employment.

Composition of Music, Theatrical productions, & Opera Employment



8.8. Radio and Television

8.8.1. Overview

Lebanese radio and TV have shown substantial growth over the last two decades and their TV channels are considered the most successful in the Arab world. Satellite broadcasting has facilitated the reception of Lebanese channels in all Arab homes and cities. All the national hertz channels have a sister company through satellite.

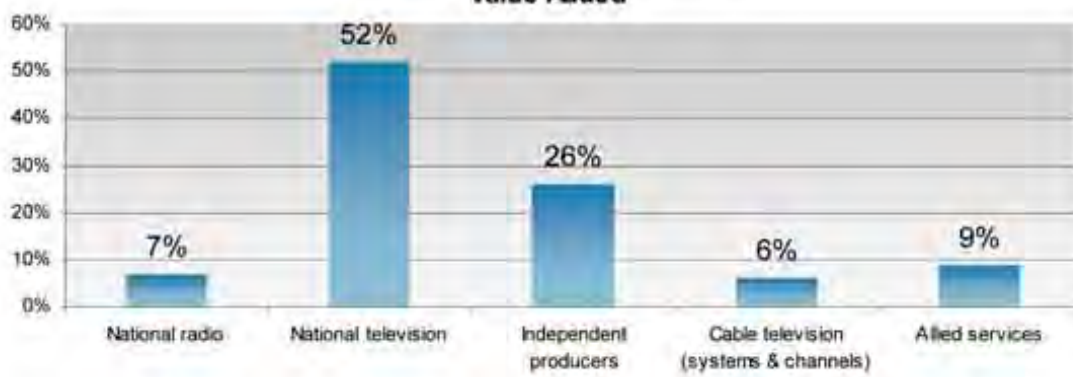
Contributions from Arab countries largely compensate for the declining local advertisements revenues due to the political instability that is straining advertisement budgets.

8.8.2. Economic impact

The sector generated US\$124 million of turnover and US\$73.8 million of value added. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.34 percent to GDP.

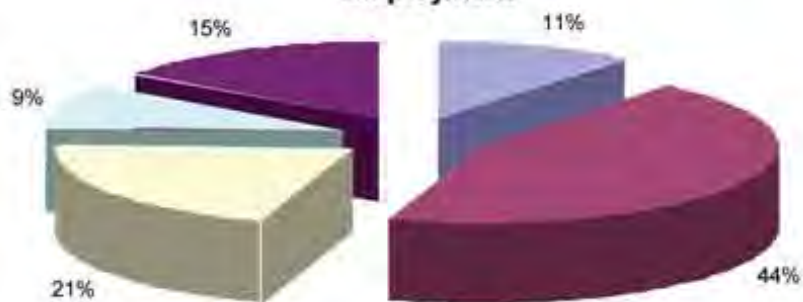
Copyright Industries	Contribution to GDP (million USD)	Number of Workers
National radio	5	420
National television	36	1,722
Independent producers	19	800
Cable television	5	350
Allied services	7	600
Total Radio and Television	74	3,892

Composition of Radio & TV
Value Added



The sector consists of 105 operators employing 3,892 workers and it contributes around 0.35 percent to employment.

Composition of Radio & TV
Employment



8.9. Software and Databases

8.9.1. Overview

The high-tech industry in Lebanon emerged in the early 1980s. The country now has a fairly well-developed software sector with a potential for growth.

Despite the economic slowdown resulting from the war, the small size of the local market and the intense competition from cheaper imported products, Lebanon has a fairly well-developed software sector with good growth potential if conditions are favorable. Many Lebanese software companies are well placed, not only because they offer good products and services, but also because they can operate in several cultural and linguistic environments.

The predominance of services in the Lebanese economy has been beneficial to the software industry. Since banking, finance, trade and tourism generate the largest part of total output, applications for management, accounting and finance, stock management, communication and software for personal computers dominate the market, while software applications and development for industry and scientific research are non-existent. Programming has evolved into an industry since the 1970s: it was previously essentially performed in-house, in banks and private institutions.

8.9.2. Industry Structure

The computer industry consists of approximately 527 firms, including 374 software companies. Experts estimate that the five leading companies cover more than 50 percent of the market. Many firms fail within their first years of existence. Software firms are concentrated in Beirut, the capital, and its suburbs. The quality of services varies considerably from one firm to another; some provide excellent quality, but many lack expertise and perform below established standards.

8.9.3. Market Trends

The leading users of software are large companies and small and medium-sized enterprises whose managers started to invest in software and hardware, perceiving the value added it could bring to their businesses. Almost all banks use the basic software applications, as do the large hospitals and an increasing number of companies in different fields (wholesale and retail trade, advertising, hotel management, etc.). Government consumption has also had a significant impact on the growth of demand, since the government has launched a reconstruction program and adopted a policy of modernization in its public administration offices and structures. Government demand is estimated to be over 20 percent of the total IT market.

The level of domestic demand is estimated to be insufficient to absorb domestic output, and many Lebanese firms operate below capacity. There is a potential demand for imported software, but it remains highly price-sensitive. Very few companies export software and services; those that do sell abroad generally do not exceed 10 percent of total sales.

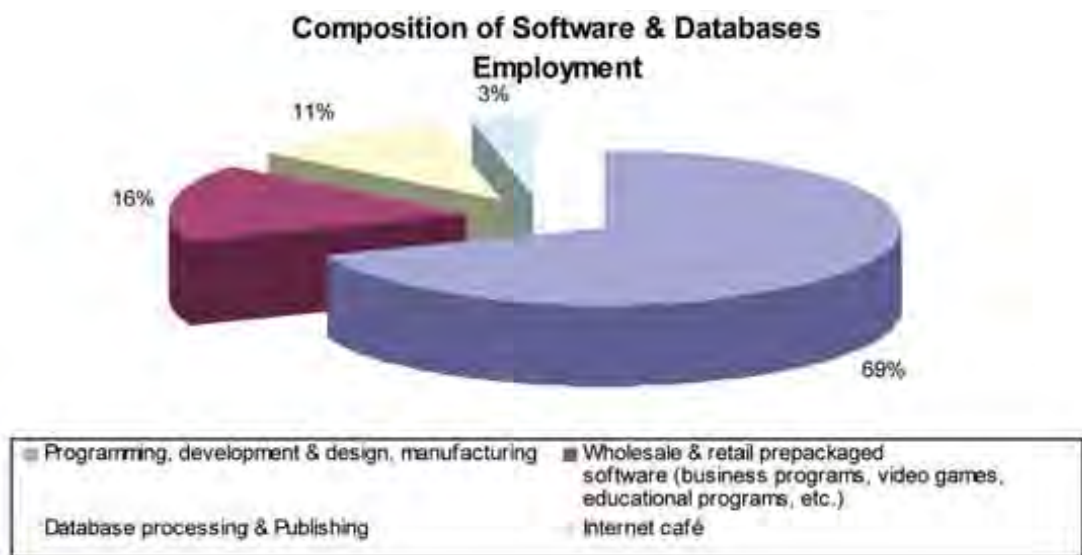
8.9.4. Employment

The IT sector in Lebanon employs 2,456 people, with software companies employing less than half - computer engineers, programmers, technicians, marketing staff and administrative employees. The software workforce is young and predominantly male (60 percent).

Software development firms require both highly-skilled and semi-skilled workers. Qualified computer engineers and technicians are available on the Lebanese market, although more than half of all new graduates leave the country for postgraduate studies or for jobs abroad, hoping for better careers and higher salaries. Locally, about 10 percent of employees do not work in the field for which they are qualified, and 20 percent of them leave the country within the two years following their graduation.

There seems to be a shortage of qualified software professionals among the newly-hired, which may be explained by competition from other technological industries such as telecommunications and by the external brain-drain, involving mainly students who go abroad for their studies and do not come back.

IT workers are not unionized: there is no official union for the IT or software industries in Lebanon.



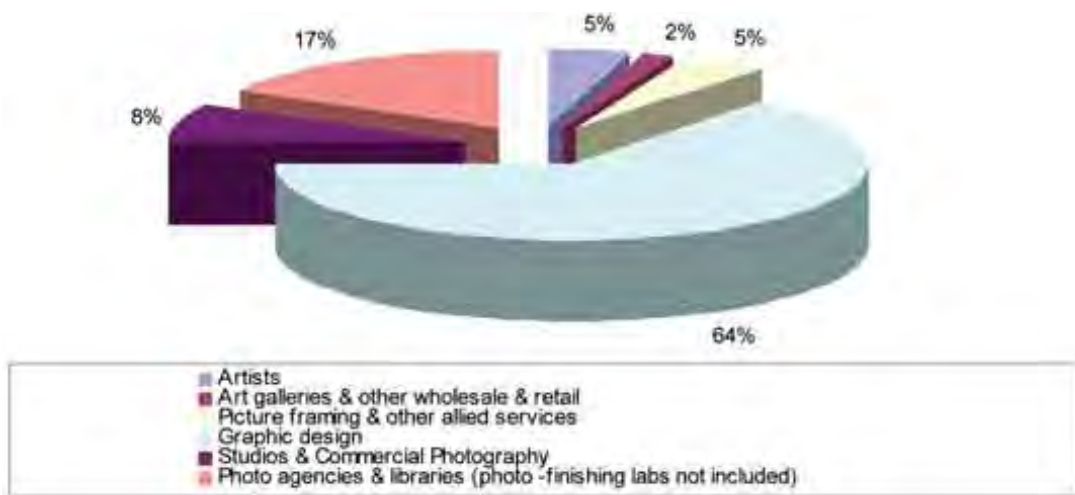
8.9.5. Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> ▶ Schools, universities, private companies and public administrations are investing in new equipment to keep up with international trends. ▶ Taxes on IT products have decreased, and special offers and payment facilities on hardware and software are now available. ▶ Telecommunications, despite their high cost, are more and more reliable. ▶ There are many software companies in Lebanon that provide very high-quality software and services. 	<ul style="list-style-type: none"> ▶ The cost of developing and marketing software applications - with consequently high prices compared with other countries in the region, and with products made in the Far East. ▶ Local software firms mention that some large companies in Lebanon prefer to buy an expensive imported package rather than a local product, because they are biased against that which is "made in Lebanon". ▶ The prevalence of piracy causes Lebanese output to be undervalued and discourages local investors, especially those with limited financial means, as well as foreign companies.

8.9.6. Economic Impact

The sector generated US\$129.7 million of turnover and US\$85.13 million of value added. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.39 percent to GDP.

Composition of Visual, Graphic Arts, & Photography Value Added



The sector consists of 527 operators, employing 2,456 workers and contributes around 0.22 percent to overall employment.

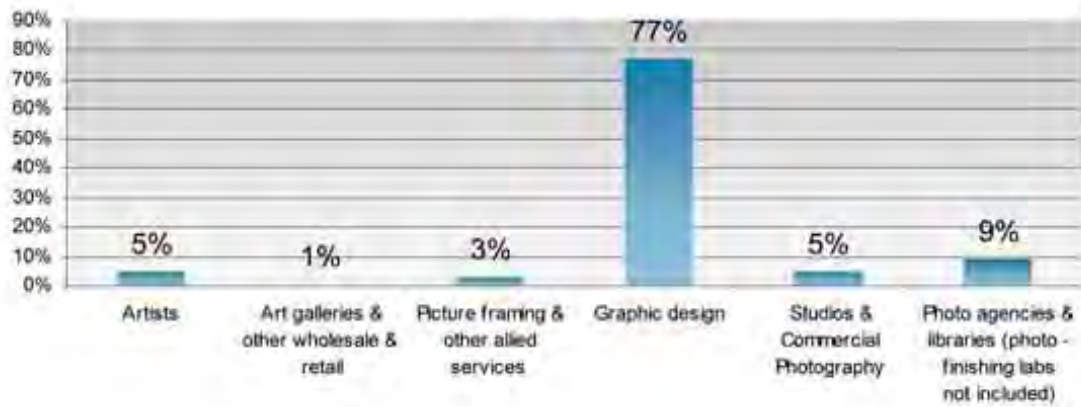
8.10. Visual, Graphic Arts and Photography

8.10.1. Economic Impact

The visual and graphic arts sector generated US\$71.4 million of turnover and US\$50.33 million of value added. The photographic sector generated US\$18.625 million of turnover and US\$9.79 million of value added. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.27 percent to GDP.

Copyright Industries	Contribution to GDP (million USD)	Number of Workers
Artists	3	85
Art galleries and other wholesale and retail	0	30
Picture framing and other allied services	2	85
Graphic design	45	1,200
Studios and commercial photography	3	150
Photo agencies and libraries (photofinishing labs not included)	5	315
Total Visual and Graphic Arts	59	1,865

Composition of Visual, Graphic Arts, & Photography Value Added



The sector consists of 720 operators employing 1,865 workers; 255 operators are in visual and graphic arts employing around 465 workers, and 630 operators are in the photographic sector employing around 1,400 workers. The sector contributes around 0.17 percent to employment.

8.11. Advertising Services

8.11.1. Overview

The Lebanese advertising film industry is unusual due to its size and small number of operators. There are roughly 50 firms, of which about six dominate. Price competition is very tough, and few companies make substantial profits. Some foreign companies (Italian, South African, French or British) occasionally obtain big projects in Lebanon. At the regional level, Cairo and Dubai are Lebanon's main competitors; Cairo has unbeatable prices, but quality remains far behind Lebanese standards, so Lebanon still offers the best price/quality ratio.

Advertising films dominate the Lebanese market, with around 80 percent of local film and video businesses devoted to producing TV commercials. Lebanon is still the center for the advertising industry in the Middle East. The advertising film sector, considered one of the engines of the Lebanese economy, has an estimated annual turnover of US\$58 million and employs a substantial number of people.

During the past few years however, the sector has been stagnating owing to a depressed economic situation, a proliferation of small production houses congesting the market and the poor financial state of production houses, caused by payment delays.

8.11.2. Market Structure

There are 51 operators with only six major firms in the advertising industry. Each of the top firms employs around 20 permanent staff and 30 to 60 freelancers.

New entrants are rare although no formal restrictions exist: there are, however informal barriers, such as lobbying and the use of personal relations to obtain contracts and to retain market share.



8.11.3. Market Trends

Most TV commercials are produced locally, sometimes with the help of foreign professionals, at a cost ranging between US\$10,000 and US\$300,000. A few films are produced entirely in Europe. Post-production may take place overseas (in Amsterdam, Paris, London, and sometimes Cairo) for some 35mm films, and also when complicated special effects or the skills of a foreign director are required.

According to industry sources, around 60 percent of all TV commercials produced in Lebanon are for Saudi Arabia.

- **Employment**

The advertising industry employs about 790 workers. Lack of professionalism is considered a major problem: the market lacks skilled photographic directors, special effects directors, art directors, cameramen and assistant cameramen, and the same problem applies to actors and clients. There is also a dearth of actors prepared to play the less glamorous roles.

Domestic universities and institutions provide their students with the requisite theoretical background and know-how, but graduates lack practical experience in the field and many companies bring in foreign professionals to train local employees, and often invite producers from abroad to inject a new spirit and expertise.

8.11.4. Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> ▶ Lebanese advertisers are distinguished by their creativity, which facilitates their entry into the Middle Eastern and North African markets. 	<ul style="list-style-type: none"> ▶ Graduates have acquired the theoretical background and know-how but lack practical experience. ▶ Lack of professionalism; the market lacks skilled photographic directors, special effects directors, art directors, cameramen, assistant cameramen, actors and clients. ▶ Dearth of actors prepared to play less glamorous roles.

8.11.5. Economic Impact

The sector generates US\$58 million of turnover and US\$33.64 million of value added. The copyright factor is 100 percent due to the total reliance of the sector on copyright, and hence the sector contributes around 0.15 percent to GDP.

The sector consists of 51 operators employing 790 workers and it contributes around 0.07 percent to employment.

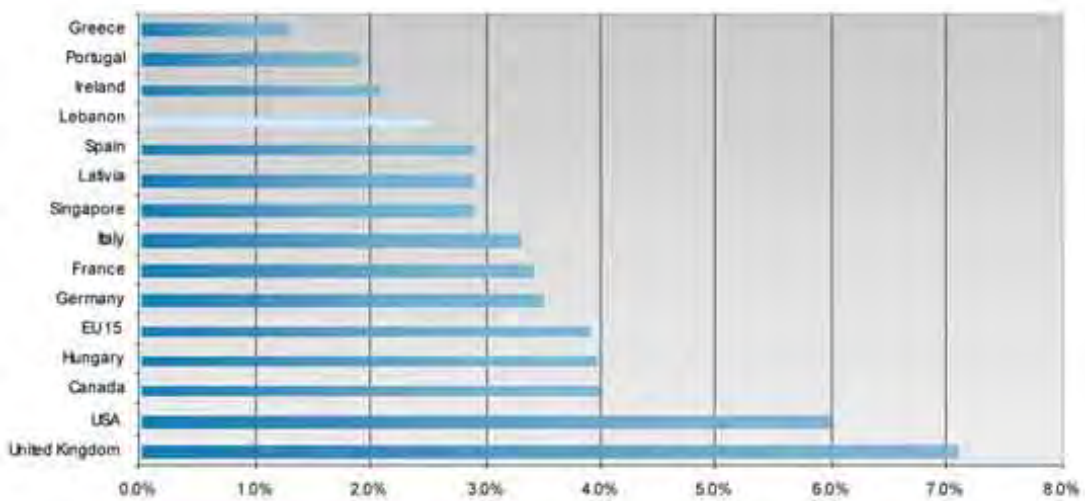
9. International Benchmarking

This section compares the economic contribution of copyright-based industries in Lebanon with other countries. Comparison with EU countries is only possible for the core and interdependent copyright-based industries due to the limitations of the available data.

9.1. Core Copyright Industries

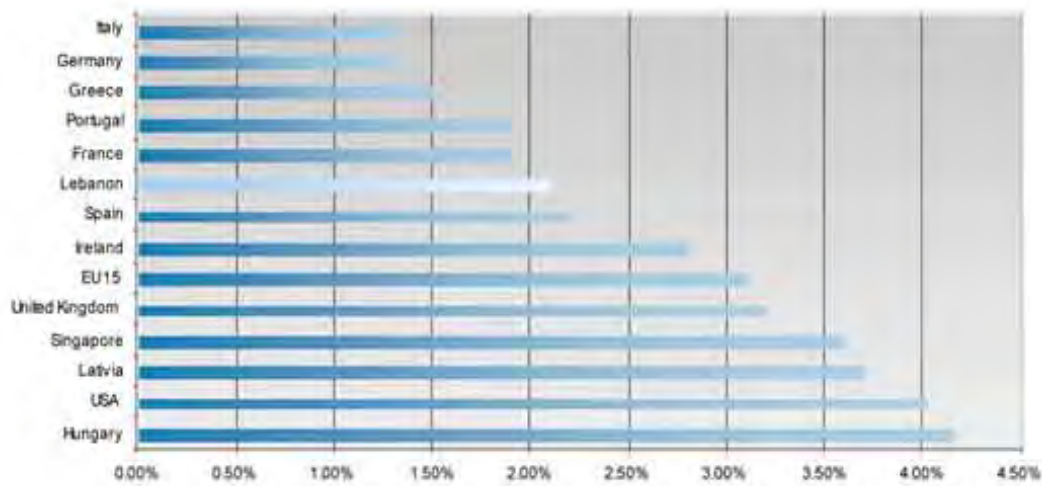
The core industries in Lebanon contribute around 2.53 percent to GDP whereas the core industries in France, Germany, and Italy contribute around 3.4 percent, 3.5 percent, and 3.3 percent to GDP and 1.9 percent, 1.3 percent, and 1.3 percent to employment respectively. Moreover, the core industries in the UK, the US, and Ireland contribute 7.1 percent, 5.98 percent, and 2.1 percent to GDP and 3.2 percent, 4.02 percent, and 2.8 percent to employment respectively.

Contribution of Core Copyright-Based Industries to GDP



As for employment, the core industries in Lebanon contribute 2.11 percent, whereas the core industries in France, Germany, and Italy contribute around 1.9 percent, 1.3 percent, and 1.3 percent respectively. In the UK, the US, and Ireland the core industries contribute 3.2 percent, 4.02 percent, and 2.8 percent respectively.

Contribution of Core Copyright-Based Industries to Employment



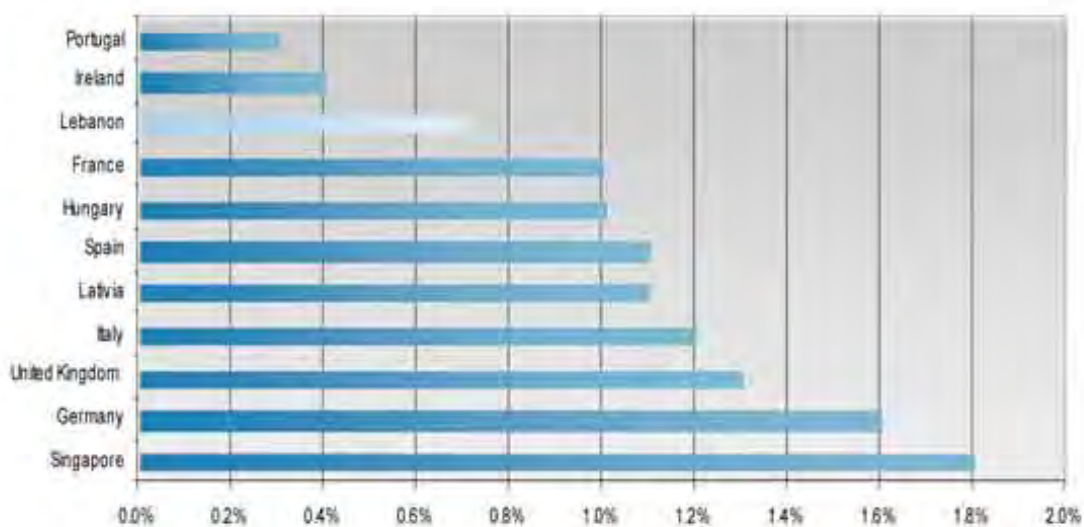
As mentioned earlier, Lebanese data for the core copyright sector are in some measure underestimated due to the following:

- the difficulty in distinguishing and identifying activities related to copyright Industries;
- the lack of figures for informal activities in the official data;
- the lack of figures for part-time seasonal cultural events;
- the lack of figures for freelancing activities for international markets, mainly in the Gulf area.

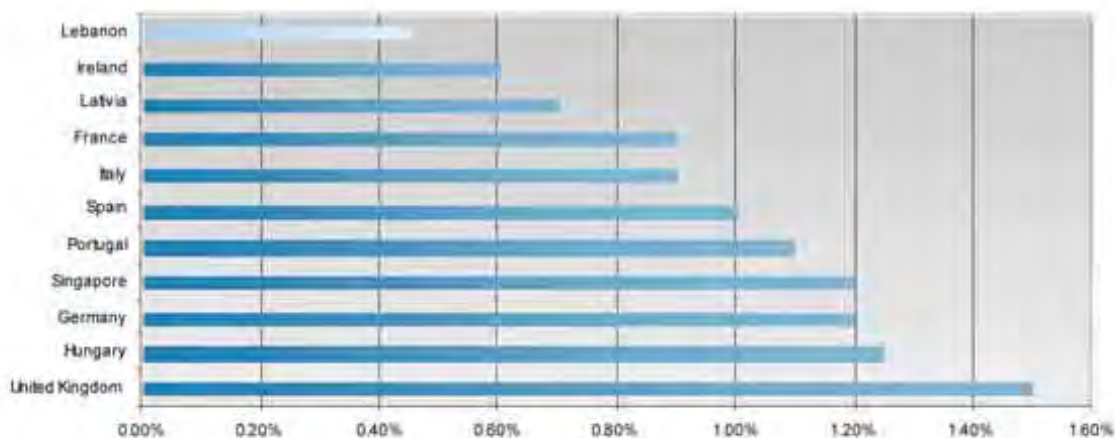
9.2. Interdependent Industries

The interdependent industries in Lebanon contribute around 0.7 percent to GDP and 0.45 percent to employment, whereas the interdependent industries in France, Germany, and Italy contribute around 1 percent, 1.6 percent, and 1.2 percent to GDP and 0.9 percent, 1.2 percent, and 0.9 percent to employment respectively. Moreover, the interdependent industries in the UK, Spain, and Ireland contribute 1.3 percent, 1.1 percent, and 0.4 percent to GDP and 1.5 percent, 1 percent, and 0.6 percent to employment respectively.

Contribution of Interdependent Copyright-Based Industries to GDP



Contribution of Interdependent Copyright-Based Industries to Employment



Comparison of the entire scope of copyright-based industries with the US, Latvia, Singapore, and Hungary is only possible by using the results of the latest studies. The tables below show the contribution of the four copyright-based industries to GDP and to employment.

The total copyright industries contribute 4.75 percent to the Lebanese economy in comparison with 11.96 percent, 6.67 percent, 5.06 percent, and 5.67 percent for the US, Hungary, Latvia and Singapore respectively.

Economic Contribution to GDP					
Country	USA %	Hungary %	Latvia %	Singapore %	Lebanon %
Core Copyright Industries	5.97	3.98	2.90	2.85	2.53
Interdependent Industries	3.75	1.01	1.11	0.97	0.71
Partial Copyright Industries	0.31	1.25	0.28	1.76	0.62
Non-dedicated Support Industries	1.93	0.45	0.77	0.09	0.89
Total	11.96	6.67	5.06	5.67	4.75

The total copyright industries contribute 4.49 percent to the Lebanese employment in comparison with 8.43 percent, 7.10 percent, 5.77 percent, and 5.8 percent for the US, Hungary, Latvia and Singapore respectively.

Economic Contribution to Employment					
Country	USA %	Hungary %	Latvia %	Singapore %	Lebanon %
Core Copyright Industries	4.02	4.154	3.70	3.64	2.11
Interdependent Industries		1.078	0.71	0.74	0.73
Partial Copyright Industries		1.253	0.53	1.24	0.70
Non-dedicated Support Industries		0.617	0.83	0.16	0.95
Total	8.43	7.102	5.770	5.8	4.49

10. Regional Benchmarking

Creative activities protected by copyright and related rights laws are also economic activities that generate income, create jobs, and contribute to the foreign trade of their countries of origin. In Arab countries it is widely believed that there has been a decline in creative and artistic activities and this has led to a decline in the output of copyright-based industries in those countries.

The contribution to GDP, employment, and foreign trade by the book publishing, recorded music, film, and software industries, differs amongst countries.

Share of Copyright to GDP for Selected Countries in %				
Selected Arab Countries	Lebanon (2005)	Jordan (2000)	Morocco (1999)	Tunisia (2000)
Book Publishing	0.75	0.2	0.30	0.37
Music Recording	0.33	0.1	0.16	0.02
Film Industry	0.29	0.1	0.05	0.09
Software	0.34	0.4	0.03	0.16
Total	1.71	0.80	0.54	0.64

Share of Copyright to Employment for Selected Countries		
Selected Arab Countries	Lebanon %	Jordan %
Book Publishing	0.83	0.1
Music Recording	0.22	0.1
Film Industry	0.25	0.1
Software	0.35	0.2
Total	1.65	0.5

The Book Publishing Industry: The Book Publishing Industry in Lebanon contributes around 0.75 percent to GDP compared with 0.2 percent, 0.3 percent, and 0.37 percent in Jordan, Morocco, and Tunisia. In all countries the enforcement of IP rights in book publishing is weak and copyright protection is not widely used as a positive means of enhancing the economic performance of the industry.

The Music Industry: The Music Industry in Lebanon contributes around 0.33 percent to GDP compared with 0.1 percent, 0.16 percent, and 0.02 percent in Jordan, Morocco, and Tunisia respectively. In all countries the enforcement of IP rights is very weak, which appears to be seriously detrimental to the economic performance of the industry.

The Film Industry: The Film Industry in Lebanon contributes around 0.29 percent to GDP compared with 0.1 percent, 0.05 percent, and 0.09 percent in Jordan, Morocco, and Tunisia respectively. In most of these countries, the enforcement of IP rights is weak. The impact of copyright-based protection on the economic development of the industry is perceived as negative.

The Software Industry: The Software Industry in Lebanon contributes around 0.34 percent to GDP compared with 0.4 percent, 0.03 percent, and 0.16 percent in Jordan, Morocco, and Tunisia respectively. Of all the copyright-based industries, only the software industry has been seen as performing well. Corporate expectations are good in all countries. The persistence of piracy and illegal use of software in the Arab countries, especially Lebanon and Morocco is a negative factor and IP rights enforcement is weak.

11. Recommendations

Success in the new global economy depends on approaching economic development with a new sense of creativity and innovation and emphasis on a more competitive business climate and improved quality of life. As Lebanon faces significant economic challenges, the sustainability of growth and development requires leveraging on existing resources. All sectors in Lebanon have been suffering from lack of resources and the economy needs to receive a serious “second look” in conformity with the emergence of the “New Economy” which emphasizes knowledge, creativity and innovation as keys to competitiveness. The copyright-based industries are a key aspect of this new strategy.

11.1. New Vision

Until recently, the copyright-based industries had been under-valued and not viewed as a significant economic driver and source of growth, despite their significant contribution to the Lebanese economy. Therefore, they do not receive the consideration they deserve from economic policies; a situation which needs to be changed. Economic policy makers and all players and stakeholders in the copyright-based industries must be made aware of the importance and weight of this sector. Furthermore, the socio-economic power of copyright-based industries is out of proportion to its economic weight, and has a privileged role in improving the quality of life.

- Cultural economic development policies are part of economic development strategies, with their complexity, structure, regulations, and protocols; utilizing resources originated from both the for-profit and non-profit segments of the cultural sector. They are driven by all aspects of culture including heritage, arts, legacy, tourism, education or the environment.
- For Lebanon it will be extremely challenging to transform its creative activities from a very enterprising sector with a large number of new businesses being established, but with little sense of innovation and based on the imitation of local market entrepreneurs, to an entrepreneurial sector, driven by creativity and innovation seeking to develop international opportunities.
- Under the auspices of the Ministry of Culture, a development strategy should be introduced to coordinate the multiple government institutions (the Ministries of Tourism, Education, Information, Economics and Finance), the trade unions and professional associations, and all players and stakeholders in the different sectors.
- To implement and ensure follow-up of any strategy, a cultural industries development council could be set up with representatives from each of the cultural industries through their respective trade and professional associations and with *ex-officio* government representation.
- Lebanon could be the leader of vital regional collaboration activities in creative industries, coordinating and facilitating trade, control and regulation among the different countries in the MENA region. The regional dimension has always been a major driver for the Lebanese creative industries.

11.2. Development Strategies

- The success of any cultural strategy is based on a dual approach combining economic growth and community development. This policy and investment approach to support the physical and human resources of cultural activities, has been labeled the creative economy, which includes (but is not limited to) the arts, film, music, heritage preservation, design, and IT industries. Such a global investment by the public and private sectors will create a stronger, more competitive economy and a vibrant community.
- Competitive copyright-based industries depend on the efficacy of the suppliers of goods and services. Many modern economies operate as a complex network of firms supplying to, and buying from, each other. Therefore initiatives that support improvement in competitiveness are essential for improving the efficiency of domestic markets and facilitating export and import of goods and services. They make productive use of scarce resources, such as capital, and support long term economic growth and wealth creation.
- In Lebanon the copyright-based industries face much the same constraints and issues that hinder other forms of economic activity. However, these branches need specific development actions to facilitate their capability to create jobs and to grow.
- Development of a common forum through which industry-wide issues can be cooperatively discussed and addressed. This will utilize existing infrastructures where appropriate and may require support staff to carry out certain tasks and fine-tune strategies.
- To improve the efficiency of any strategy, the public authorities will support the implementation of an annual data-gathering process designed to measure the type, variety, quantity, and sales trends of Lebanese cultural products. This process will take place in collaboration between the Central Administration of Statistics (CAS) and the cultural industries' associations.

11.3. Facilitate Access to Funding

The primary constraint is of course access to funding, which if readily and economically available would allow the copyright-based industries to undertake activities that facilitate their growth and improve their competitiveness, productivity and export market share.

Unlike firms in traditional sectors, which may have direct access to capital markets, copyright-based industries are often excluded because of the lack of awareness of the banks of this non-traditional sector and the lack of knowledge of the different operators and professionals in the cultural sector on how to prepare a proposal for obtaining bank loans. High risks and higher management costs of the credits allocated are also obstacles to traditional financial managers.

Measures to support access to credit for copyright-based industries are numerous, the most important of which are:

- To promote private sector involvement through existing financing encouragements such as subsidy loans, and guarantees, and also through total or partial tax exemptions or tax reductions, and sponsoring.

- To strengthen the role of the guarantor *Kafalat* to guarantee the funding of the copyright-based industries that have difficulty in obtaining ordinary bank loans.
- To encourage the creation of specialized funds (equities and loans) to invest in the copyright-based industries through guaranties, total or partial tax exemptions or tax reductions, and sponsoring.
- To allocate within the public budget a global subsidy for the copyright-based industries, equivalent to 60 percent of the total taxes paid by these sectors during the previous exercise.
- Part of the funds allocated will help to create a guarantee fund for equity investment in the copyright-based industries.
- To set up a simple and equitable management scheme for this fund that can be administered at a low cost and with minimum political intrusions: *Kafalat* could be a privileged partner in the management of the fund. Private equity funds and financial institutions will be very interested in investing in cultural products and services if their participation comes with guarantees.
- To support High Potential Start Ups which bring new expertise, technologies and management skills, thus increasing the overall competitiveness of the sectors in which they operate. A grant of 50 percent to a maximum of US\$50,000 could be offered to qualifying companies. Half of this amount would be in the form of a grant and half would be repayable after three years. The repayment element would be in the form of redeemable, convertible, preference shares with an agreed conversion rate.
- Seed equity could be also allocated for High Potential Start Ups through a public/private partnership with 50 percent being contributed by each party. The private sector would be allowed to write off its investment against personal or corporate income tax over five years. New funds are under discussion and are ready to participate in such projects with international donors showing interest in such operations.
- To encourage TV stations to invest in film production and to broadcast Lebanese productions to respect their commitment to a minimum of transmission and cultural preferences.
- To benefit from co-operation with international organizations and the European Union and from the loans granted to Lebanon to increase those loans earmarked for the copyright-based industries.
- To encourage discounting facilities on pre-sale operations which would finance receivables and would also negotiate soft repayment terms with suppliers to improve cash positions. The Lebanese market would be able to implement such financing tools if the risk element were partially carried or guaranteed by any agency. This could be implemented very quickly and would substantially improve liquidity for copyright industries.

11.4. Tax Incentives

Major developed countries and many developing countries have adopted comprehensive programs in the medium and/or long term for the set-up of a tax system that introduces incentives to the copyright-based industries. The different systems are based on regional development, social equity between taxpayers, collection and administrative simplicity.

They could include specific measures for preservation of cultural heritage, and national preferences. Tax exceptions should be differentiated from the transfers and subsidies allocated to the different activities of the creative industries. The impact of certain measures could be perceived in short-term programs, whereas other measures would only yield results through medium and long-term policies.

The measures to be taken could be simple corrections or modifications to laws, or could require the creation of a new infrastructure to support the cultural industries.

The major actions could be summarized as follows:

- Cultural products and services cannot be a source of finance for the public sector. Therefore any taxes collected from the copyright-based industries have to be rerouted and allocated to support these activities.
- Customs and taxes on professional equipment dedicated to cultural industries should be removed.
- Eliminate or drastically reduce taxes for control of cultural material. Costs generated by security, moral or administrative controls should be supported from the public budget. Cultural producers do not have to financially support collective concerns.
- Allow tax exemptions for sponsoring culture by businesses and raise the authorized sponsoring ceiling to 15 percent of profits.
- Set the regulatory framework to allow for the creation of cultural foundations to help in sponsoring cultural projects and activities. A project is in preparation and could be accelerated in the short term.
- Work with the cultural industries' associations to design and establish a private investor tax credit program that will enable and encourage individuals to make equity investments in cultural businesses.
- Use government real-estate properties to set up media and cultural villages and cities in urban and rural areas. Local authorities will be encouraged to take charge of the promotion of such projects. Some of the projects could be set up with the support of international donors.
- Grant these areas a special fiscal status with attractive tax exemptions. Link the exemptions to the use of technically-advanced equipment, to R&D expenses and to training, to insure better efficiency.
- Encourage regional and international investors, through tax exemptions and social charge reductions, to invest in and reinforce cultural production in these specific areas.
- Implement an employment tax credit to strengthen job structure in some fragile copyright-based industries.
- Maintain and enhance financial support for cultural events organized by private and local partners, so that they may support local cultural programs and initiatives.
- Restructure funding mechanisms and governance models for the public service TV broadcaster in line with best international practices with a clear charter for public interest programming.

- Grant tax breaks and soft loans for mergers in cultural activities mainly in broadcasting and the media, to encourage more competition.
- In Ireland, the Taxes Consolidation Act, 1997 provided a fiscal incentive to taxpayers to invest in film production. The scheme allows tax relief on investments in film projects certified under the Act. The legislation requires that a minimum of 75 percent of the work on the production of the film be carried out in the country. This tax break on investments in the film industry has helped to create a vibrant film industry.

11.5. Human Resources

An integral and often invisible component of the creative sector is made up of the artists, performers, writers and other creative workers whose skills and vision bring to life our nation's genius and ideas.

Human resources remain the major source of wealth in the Lebanese economy and particularly in the creative industries. It is impossible to improve economic and social productivity without reinforcing the educational, administrative and technical qualifications of individuals in these industries. Human resources improvement programs will cover the double goals of reactivating the educational and cultural instruments on the one hand and supporting the training and capacity building programs on the other. Among the proposed priorities:

- Education curricula should be updated and improved in order to better suit the market.
- Awareness campaigns should be developed in order to enhance the business culture among the creative communities. For instance, a producer should be trained in how to be a businessman not only an artist, through presentation of business plans and not only productions. Trade unions and chambers of commerce and industry would mentor such programs.
- A better linking of vocational and technical education with the creative industries and market requirements and available employment opportunities should be ensured. The productive enterprises must participate in setting up the programs and assist in the training of technicians and experts.
- Training and capacity building processes on the job and during the operational period should be adopted to incorporate the new technical developments. For that purpose, skills development programs could be introduced with a partially repayable grant (35 percent to 50 percent of costs and a maximum of US\$25,000) to undertake specific internal training programs designed to increase productivity and competitiveness.
- A modern production culture based on professional responsibility and quality assurance to all productive and labor resources should be encouraged to introduce transparency in ownership structures, donations, and subsidies.
- The role of women in the copyright-based industries should be strengthened to facilitate opportunities for more effective participation in the productive process, be it as freelancers or on a contractual basis. Creative industries offer jobs easily adapted to female profiles in a traditional society.
- Modern technologies and the training associated with them should be introduced, especially in IT and telecommunications, to accompany globalization and participate in the creative process.

- Work should be carried out on developing mentalities to adapt to the new economic and social trends, for improving the image of the technical, manual and handicraft professions on the one hand and for adapting to the new employment factors on the other. Among the bases of a modern economy is the simplifying of the transfer from a specialized job from one sector to another, or from one geographic area to another.
- Employment laws and regulations to facilitate employment in the copyright-based industries characterized by a high degree of seasonality and recourse to temporary and part-time contracts should be adopted.
- Seminars and workshops to facilitate professional training with the support of international institutions and developed countries should be promoted. Regional collaboration could be developed for training programs.

11.6. Trade Facilities

For Lebanon, the introduction of culture into global trade rules and governance is an issue of immense concern and opportunity. In many respects it is a contest between the liberalization of trade in cultural goods and services and the promotion and protection of cultural diversity.

Core copyright activities are export oriented and Lebanese creative industries benefit from an excellent image in the different MENA countries, as well as in international markets. Lebanese creative industries can leverage on their intangible assets and set performing, marketing and distribution strategies.

Development strategies may incorporate international trade development:

- The convergence of telecoms, telephony, the Internet and cultural content has revolutionized product sales and marketing. However, these gains are dependent on wider access to Internet services, the growth of broadband and wireless access, and the expansion of digital distribution channels and consumption devices (mobile phones, iPods). All of this would not be possible without digital rights management which facilitates consumer usage rights while protecting the works of creators from unauthorized distribution and unfair use.
- The creative industry niches are becoming one of the fastest growing sectors of the world economy. This growth is accounted for by rapid technological changes in products, manufacturing, and distribution, the convergence of the media and the fast growth of the digital economy.
- Electronic commerce is growing in importance and is changing the pattern of trade in creative goods and services. The rapid pace of technological change through providing online services like ring tones for cell phones, is but one example of how the trading arena is being diversified and how supply capabilities must be strengthened in order to maximize market access opportunities that are opening up in non-traditional forms.
- Trade and border measures that raise the cost of inputs/imports and business or delay competitiveness and exports are common in MENA markets. A coordinated regional distribution network is required to minimize the logistical challenges posed by the geography of the region and also to collect meaningful trade data. This intervention may have to include products from the creative industries to achieve the

critical mass required for eventual sustainability. Duties or any charge whatsoever on cultural products that move within the Arab countries should be removed, making this regime transparent to all operators and customs authorities in the region.

- Recourse to export risk insurance is unusual in Lebanon and particularly for the export of cultural products. The development of a competitive insurance market to support exports, particularly to regional markets, would have immediate and major benefits for Lebanese creative products.

11.7. Control and Censorship

- Government authorities must reduce interference in production content and allow access to any news source.
- Independent cultural producers must be allowed to operate with access to outside news and information services. Laws and practices restricting cultural producers in their right to freely gather and distribute cultural products must be relaxed.
- The public should enjoy the freedom to receive foreign cultural products and services with no interference or censorship.
- Foreign performers and artists should be allowed to travel freely, participate in any creative production and deliver services in Lebanon while complying with Lebanese employment and fiscal laws.
- Restrictions on the free entry to any cultural activity through licensing or other certification procedures must be lifted.
- The market for publications should be liberalized by issuing licenses for new and independent publications. Any license procedures should be fair, transparent, and simple.
- Lift any censorship and costly preventive controls. Any charges in control should be paid for by the public administration and not by the operators.
- Encourage the use of new tools and up-to-date technology to help improve the quality of cultural products.
- Encourage coverage through country-wide distribution networks.
- Establish standardized and modern media research centers to ensure scientific and objective quantification of media reach, consumption, audience share, advertising efficacy, audience demographics.

11.8. Fighting Piracy

In general, one can say that the Lebanese legislative framework for copyright and related rights, whether stipulated in the local laws or in international agreements and treaties, is sufficient to protect these rights, provided it is implemented and enforced in a serious and effective manner by the relevant authorities.

However rights holders face many practical and material difficulties and challenges when resorting to the Lebanese judicial system: Some are related to judicial measures, others to the slow investigation procedures, in addition to the unfair compensation imposed by the courts. Lebanon should address these deficiencies with a number of important judicial measures namely:

- To issue recommendations from the Ministry of Justice to judges and criminal courts to apply strict sanctions against offenders convicted of infringement of copyright and related rights, in particular, a custodial sentence whenever it is possible.
- To issue recommendations from the Ministry of Justice to the criminal courts to accelerate legal procedures and rulings in copyright cases and to sanction the party delaying the prosecution by imposing heavy fines.
- To publicize court sentences delivered on infringements of copyright in audiovisual media for awareness and intimidation purposes.
- To issue recommendations from the Public Prosecutor to the judicial police in order to crack down on piracy and infringements and enforce rogatory commissions.
- To reinforce the newly-established police unit attached to the Ministry of the Interior, specializing in fighting intellectual property crimes, by increasing the number of its officers and conducting intensive training sessions for them, in order to be aware of the intellectual property details and the related crimes, and the means of sanctioning them.
- To adopt customs exemptions for all copyright and related rights holders, in particular those whose works are being pirated (musical and cinematographic producers, authors, publishers, computer programmers and video games companies, and legal cable providers) when importing or exporting their works or equipment.
- To adopt exemptions or tax reductions, particularly for copyright and related rights holders in order to encourage them to continue creating and to fight the piracy of their work, in the face of the State's inability to reduce this piracy, and to assist them to pursue their lawful business.
- To immediately launch a national campaign to fight copyright and related rights piracy. To extend the decision to all the piracy fighting units in the Ministry of the Interior, Ministry of Justice, Customs Directorate, Intellectual Property Protection Office at the Ministry of the Economy, and to establish a special body to follow up the implementation of this decision.
- To reach a national political consensus to remove immunity on any party, person, company or body on Lebanese territory involved in piracy of copyrighted works, or any infringements of these rights, and deny them any political or security protection.

The Lebanese legal system governing and protecting copyright is one of the most advanced and developed systems in the Arab world. However, its enforcement is still related to national political decisions regarding the necessity of fighting piracy and infringement of these rights. In case these recommendations are implemented, even in phases, there is no doubt that the infringement of copyright in Lebanon will steadily decrease, and lead to a rise in the rights holders' revenues and profits. This will positively reflect on the national income and the image of Lebanon as an advanced country and one of the leaders in the Arab world in protecting and respecting intellectual property rights.

12. Conclusion

Lebanon is one of the most culturally-diverse and advanced states in the MENA region and one of its major assets is its human resources and their special talents and abilities. This cultural strength offers a large number of economic opportunities that will ultimately invigorate the country's economy and create competitive new products and successful and competitive enterprises. The products and jobs that grow out of the Lebanese cultural industries are an essential component for a healthy and dynamic countrywide economy.

Cultural economic activities should be viewed as valuable, creative and flexible resources for job creation and economic growth, as well as a source of entrepreneurship and community revitalization since these activities are easily extendable to urban, suburban and rural communities. Consequently, copyright-based industries play an important role in fostering income stability, growth, and employment.

This study is the first analysis in Lebanon to outline and quantitatively estimate the importance of the copyright-based sector in the Lebanese economy regarding performance and level of employment. According to these findings, copyright-based industries are of essential importance in the overall national economy, both when compared to other sectors of the economy and when compared to other countries in the MENA region.

This study has found that copyright-based industries are significant to the growth of the national economy with around a 4.75 percent contribution to GDP and a 4.48 percent contribution to employment. The copyright industries contribute around US\$1,044 million to GDP with 53.31 percent generated from the core industries. 49,666 workers are employed in the copyright-based sectors with around 46.44 percent employed in the core industries.

The total contribution to the national economy by copyright-based industries was 4.75 percent of the national economy's gross value added: 4.68 percent of the gross output and 4.48 percent of the employment rate were from this sector. Copyright-based industries are very labor intensive, particularly in Lebanon, and therefore, involve lower capital costs associated with the creation of jobs.

Even in an international context, the weight of the copyright-based industries in the economy regarding performance and rate of employment is high and this fact allows Lebanon to be at the forefront of the MENA countries.

These activities are undergoing profound and multifaceted changes. Certain goods that were previously only available directly from the cultural institutions are now widely available (e.g. newspapers, books or music downloads via the Internet). Consequently, cultural products have become available even to those people who are not close to the cultural centers.

However, some direct culture consumption (the number of book or newspaper readers, the number of theater and cinemagoers) has dropped. Because of this trend, a simultaneous growth and reduction in culture consumers has been experienced. Following international trends, the structure of the cultural supply in Lebanon has shifted towards a less intellectually-demanding type of product and light entertainment genre.

Lebanon's cultural production has grown and developed tremendously. Private capital plays an increasing role in the sector, while foreign capital has appeared in some of the more profitable segments.

The importance of copyright-based industries to economic growth, dynamism and stability is well recognized and derives from their flexibility and ability to grow and cope with adverse economic conditions.

13. Bibliography

1. The World Intellectual Property Organization (WIPO), *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*, Publication No.893E, 2003.
2. The World Intellectual Property Organization (WIPO), *Performance of Copyright-Based Industries in Selected Arab Countries; Egypt, Jordan, Lebanon, Morocco, Tunisia*, Publication No. 916E, 2003.
3. Leo Kah Mun, Chow Kit Boey, Lee Kee Beng, Ong Chin Huat, Loy Wee Loon, *The Economic Contribution of Copyright-Based Industries in Singapore*, Singapore IP Academy, 2004.
4. Gerry Wall, Bernie Lefebvre, Jana Nieto, *The Economic Contribution of Copyright Industries to the Canadian Economy*, Wall Communications Inc., 2004.
5. Stephen E. Siwek, *The Economic Contribution of Copyright-Based Industries in USA*, Economists Incorporated, 2004.
6. The Ministry of Culture of the Republic of Latvia, *The Economic Contribution of Copyright-Based Industries in Latvia*, 2000.
7. Krisztina Penjigey, Peter Munkacsi, *The Economic Contribution of Copyright-Based Industries in Hungary*, Hungarian Patent Office, 2005.
8. Allen Consulting Group, *The Economic Contribution of Australia's Copyright Industries*, 2001.
9. Marc Bonduel, *Le Développement de l'industrie du cinéma au Liban, ELCIM Programme pour la modernisation de l'industrie libanaise*, 2004.
10. Rabih Haber, *Estimating Detrimental Effects of Pirating Channels on Government of Lebanon*, Statistics Lebanon Ltd, 2004.
11. *Patterns of ICT usage in Lebanon*, Results of the 2004 ICT User Survey, January 2005.
12. Franck Mermier-Arles (2005), *Le livre est la ville: Beyrouth et l'édition arabe*: Sindbad-Actes Sud, 2005.
13. Colloque: *Quelle politique publique pour l'industrie de l'image?*- Ministère de la Culture, September 2004.
 - a. *Etude sur la censure*, Ghassan Moukheiber
 - b. *Etude sur la piraterie*, Walid Nasser
 - c. *Etude sur le financement du cinéma*, Roger Melki
14. Colloque: *Négocier la diversité culturelle*- Heinrich Boll Foundation, *Les biens culturels dans quatre pays du Machrek arabe*, Leila Rezk- Maud Stephan Hachem, May 2006.
15. Association pour le mécénat culturel, Répertoire des associations culturelles- I, 2005.