

National Studies

on

Assessing the Economic Contribution of the Copyright-Based Industries



Creative Industries Series No. 7

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The Economic Contribution of Copyright-Based Industries in the Hashemite Kingdom of Jordan



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Executive Summary

The study aims to quantify the economic contribution of copyright and related rights-based industries in Jordan by estimating their value added, employment, exports and imports. In addition, the study highlights the policy framework of the industry and its characteristics in the national context. The study adopts the methodology of the WIPO Guidelines and relies heavily on both WIPO literature and surveys conducted by the Department of Statistics of Jordan, as well as several workshops, focus group discussions and in-depth interviews with different stakeholders.

The Jordanian Law No. 22 and its amendments ensure the protection of the rights of Jordanian authors and creators. Jordan has signed and ratified copyright agreements and treaties such as the Berne Convention, WIPO Copyright Treaty, Trade in Intellectual Property Rights (TRIPS) and the Arab Convention for the Protection of Copyright. The Department of the National Library is the competent authority to enforce Copyright Law in Jordan, through inspections and filing criminal charges.

The copyright industry contribution to GDP amounted to JD 258.4 million in 2006. The highest contribution is attributed to the core copyright industries with JD 162.9 million, followed by the non-dedicated support industries with JD 60.9 million, partial copyright industries JD 21.9 million and interdependent copyright industries JD 12.7 million.

The copyright industries produce outputs that need to be protected by law. These outputs normally centre on ideas and creative work or products which require protection. The Jordanian protection environment is not fully enforced, despite the fact that Jordan has signed and ratified the copyright agreements and treaties. The copyright sector contributes to the economy in terms of value added and employment. In 2006, it contributed 2.96% to GDP and absorbed 3.4% of the labour force. The contribution of the copyright industries to the economy exceeded mining (1.94%), surpassed electricity and water (2.12%) and was close to agriculture (3.5%). In terms of interaction with the rest of the economy, the study shows a significant impact of the copyright industries on the value added of other economic sectors. It shows a multiplier effect of 30 (one JD of copyright output directly generates 30 JD of output in the economy).

Growth in the core copyright industries during 2006-2009 averaged 12%, which appears high, but is relatively low compared with the growth rates of the economy as a whole (17.55%).

The sector as a whole is characterised by small-scale establishments not exceeding 20 workers per establishment, or even fewer when narrowing it down to the production of creative work such as writing, arts, and music and software development activities.

The sector has benefited from and capitalised on the characteristics of the Jordanian environment in terms of resources, investment climate and openness of the economy. In terms of resources, Jordan over the years has placed a high value on developing the talent of its people and nurturing creativity initiatives. The stress on education (schools, universities and colleges) has led to the creation of a knowledge-based economy and taking the lead in information technology. In addition, the investment climate in Jordan is well oriented towards the attraction of foreign investment, as well as the policy of free trade as exemplified by joining the WTO in 2000, and signing Free Trade agreements with the USA, Canada and the EU, among others.

Consequently, it is clear that the copyright industries in Jordan can capitalise on talented and well-educated human resources and a favourable investment environment in order to gain momentum for development and thus have a significant impact on creating job opportunities and income generation.

Although the establishment of a copyright industry is carried out at a small scale which does not require large investment, it has a significant impact on job creation and income generation. However, gaining momentum in that direction requires policy formulation, protection law enactment, incentives and training.

The policy environment needs to be considerably strengthened. The copyright industries are spread across the sectors of the economy and are impossible to group under a specific category like mining, manufacturing or agriculture, etc. They are similar to the tourism industry, where many of the activities depend on other sectors of the economy. For example, writers depend heavily on publishing, which relies heavily on printing, which in turn requires financing. A policy addressing writers thus cannot fulfil its objectives unless the other

stakeholders are taken into account. Perhaps for this reason, it has not yet been possible to formulate a strategy covering copyright activities or cultural activities.

The majority of writing and publishing activities are carried out by 'the media' (newspapers, magazines, journals, radio and television, the internet among others). Publishing, in the form of fiction and academic books, is carried out at a very insignificant scale, mainly because it is not rewarding for writers to publish and also the market for fiction is very narrow.

Hence, a potential area of expansion is the media, especially newspapers, TV and the internet, provided that copyright protection is implemented properly. The study shows that this part of the copyright industries contributed half of the value added of the core copyright industries to GDP.

Another sector which is promising in terms of expansion and significant contribution to the economy is software development and programming, although this economic activity is at present mainly undertaken on a small-scale basis with the majority of establishments employing fewer than ten workers.

The copyright sector can benefit to a great extent from steps targeting institutional development, awareness and training, especially in the areas of law enforcement and copyright protection. A clear direction in this endeavour is the establishment of collective management societies or, similar to other countries, expanding the role of existing NGOs towards carrying out activities along these lines.

1. Introduction

1.1 Definitions

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. 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.

Copyright protection is needed to ensure that the rightholder or the owner of a work is rewarded for the exploitation of the work and copyright industries can develop to become an important business that generates a significant value added to the economy and absorbs a considerable number of the labour force. The creation of protective laws and legal enactments and enforcement measures related to protective copyrights is necessary to reach this objective.

The recent rapid and substantial developments in the communications and information technology sectors have made it possible to distribute and disseminate copies at little or even negligible cost, especially via the internet and global websites.

Copyright-based industries are industries that are engaged in the creation, production, manufacturing, performance, broadcast, communication, exhibition, and distribution and selling of protected works and products (WIPO, Guide on Surveying the Economic Contribution of the Copyright-Based Industries). The WIPO Guide identifies four categories: core copyright-based industries, interdependent copyright-based industries, partial copyright-based industries and non-dedicated support industries.

1.1.1 Core Copyright Industries

Core copyright industries are 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. Those industries can be classified under the following ten subgroups according to ISIC Rev. 3.1:

Press and Literature

Economic Activity

9214: Authors, writers, translators

2212: Newspapers

9220: News and feature agencies etc

2212: Magazines/periodicals

2211: Book publishing

2219: Cards, maps, directories and other published material

2221: Pre-press, printing, and post-press of books, magazines, newspapers,

2222: Advertising materials

5139: Wholesale and retail of press and literature (book stores, newsstands, etc.)

9231: Libraries

Music, Theatrical Productions, Operas

Economic Activity

- 9214: Composers, lyricists, arrangers, choreographers, writers, directors, performers and other personnel
- 2213: Printing and publishing of music
- 2230: Production/manufacturing of recorded music
- 5233: Wholesale and retail of recorded music (sale and rental)
- 9214: Artistic and literary creation and interpretation
- 9214: Performances and allied agencies; (bookings, ticket agencies, etc.)

Motion Picture and Video

Economic Activity

- 9214: Writers, directors, actors
- 9211: Motion picture and video production and distribution
- 9212: Motion picture exhibition
- 7130: Video rentals and sales, Video on demand
- 2230: Allied services

Radio and Television

Economic Activity

- 9213: National radio and television broadcasting companies
- 9213: Other radio and television Broadcasters
- 7499: Independent producers
- 7420: Cable television (systems and channels)
- 6420: Satellite television
- 9213: Allied services

Photography

Economic Activity

- 7494: Studios and commercial photography
- 2222: Photo agencies
- 9231: Photo libraries

Software and Databases

Economic Activity

- 7221: Programming, development and Design, manufacturing
- 5151: Wholesale and retail prepackaged software (business programs, video games, educational programs etc.)
- 7240: Database processing and publishing

Visual and Graphic Arts

Economic Activity

- 9214: Artists
- 9214: Art galleries and other wholesale and retail
- 7494: Picture framing and other allied services
- 9214: Graphic design

Advertising Services

Economic Activity

7430: Agencies, purchasing services

7430: Copyright Collecting Societies

1.1.2 Interdependent Copyright Industries

Interdependent copyright industries 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. Those industries can be sub-grouped under the following seven categories:

Economic Activity

3230: Manufacture, wholesale and retail (sales and rental) of: TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment, and other similar equipment

3000: Computers and equipment

3692: Musical instruments

3320: Photographic and cinematographic instruments

3000: Photocopiers

2429: Blank recording material

2101: Paper

1.1.3 Partial Copyright Industries

Partial copyright 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. These can be classified under the following ten activities:

Economic Activity

1810: Apparel

1721: Textiles

1920: Footwear

3691: Jewellery and coins

9199: Other crafts

3610: Furniture

2610: Household goods, china and glass

1722: Wall coverings and carpets

3694: Toys and games

7421: Architecture, engineering, surveying

7499: Interior design

9232: Museums

1.1.4 Non dedicated support industries

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. Those activities include five categories as follows:

Economic Activity

51: General wholesale
52: Retailing
60: General transportation
6420: Telephony and internet

Following WIPO Guidelines, the ISIC codes for the above-mentioned economic activities are also presented in Annex 1.

1.2 Objectives

The objectives of the study include the following:

- to quantify the economic contribution of copyright and related rights-based industry in Jordan by estimating their value added, employment, exports and imports;
- to analyze and elaborate on selected copyright and related rights-based industries of importance to Jordan, their national market structure, value chain, demand and supply patterns, labour market, policy framework, and support from public and civil sectors including the role of collective management organisations and other copyright-related organisations as well as the implications of the digital environment;
- to identify the comparative advantages of the copyright-based industries with regard to other industry sectors and with regard to major trade partners; and
- to propose policy, strategy and institutional interventions for encouraging the growth and development of copyright-based industries in Jordan.

1.3 Methodology

The Team consisted of national researchers led by a national consultant and assisted by the department of the National Library, Ministry of Culture (MoC), international consultants and WIPO experts. MoC provided advice, mediated and facilitated cooperation with government offices and other representatives of the copyright-based industries. MoC also made available certain data from cultural institutions, as well as commissioning statistical data from the Department of Statistics. Other international expertise was provided by WIPO as appropriate and when needed. The national consultant supervised all the study activities, including data collection and collation, data analysis and presentation of results.

The study followed the following steps:

- Identification of the copyright and related copyright-based industries to be studied (ISIC and WIPO Guidelines)
- Data collection, collation, tabulation and processing
- Data analysis leading to the measurement of economic contribution (value added, employment, exports and imports)
- Write-up
- Presentation

Cooperation with the Statistics Department (DoS) was essential to generate the data required by the study. The data was available until the year 2009, based on the industrial survey which was conducted by DoS in the year 2006. This survey adopted a sample based on the general frame of existing economic activities. Accordingly, depending on the significance of the activity in the general frame, some activities were presented normally according to the sampling methodology while others were not present at all because they were not significant in the general frame. For example, museums did not figure in the survey because they were considered a minor economic activity. The data for 2009 were surveyed using the same sample as 2006. In order to acquire 2011 data, a new survey by DoS was needed. Hence, as recommended by DoS and to get a

more accurate estimates on value added and employment figures, the year 2006 was chosen for this study and 2009 data were used to calculate growth rates. DoS provided the data required within its records in cooperation with the research team. Other relevant documents, books, studies, reports were collected from the concerned institutions with assistance from the Department of National Library and MoC. Focus group discussions/workshops/in-depth interviews were used as necessary in the process of collecting the data.

The team calculated the economic contribution according to the appropriate methodology adopted by the WIPO Guidelines.

The following domains of analysis provided the theme for the study:

- (a) Value of output/sales, value added, employment, exports and imports.
- (b) National policies and strategies
- (c) Productivity levels (value added divided by employees)
- (d) Efforts were made to establish different multipliers showing and comparing the indirect effects produced by the copyright-based industries with the effects produced by other industries. The study used the ISIC classification which is in compliance with the WIPO Guidelines. However, the trade statistics in Jordan use the tariff classification and thus the data related to exports and imports follow the tariff codes.

The team did not encounter any critical problems in conducting the study except for some delays in data availability caused by shortage of staff in DoS, and stand outs by related associations.

2. Current Status of Copyright Law in Jordan¹

In the Arab culture and throughout the evolution of the Arab Islamic civilisation, property has enjoyed social and legal protection. Despite the fact that most of the early intellectual property appeared in the form of poems, speeches and oral history, the culture preserved the rights of authors through relating the creative work to its author and publicising this relation through highlighting the biography of the intellectuals themselves. The creative works of the great poets of the pre-Islamic epoch were hung on the Ka'aba walls with the aim of publicising these works and their authors.

With the rise of Islam, the narrators of the Hadith enjoyed a wide popularity in the Muslim world: the name of the narrator must be cited every time you mention the Hadith. However, with some exceptions, the ideas, beliefs and rituals shared by the follower of the Islamic faith gave very little room for creativity in literature and other forms of art; but the morality of Islam and the strict enforcement of the Sharia'a law deterred people from violating the intellectual property rights during the period of the Islamic rule.

In modern history, The Hashemite Kingdom of Jordan has recognized the importance of issuing legislation to ensure the protection of the rights of Jordanian authors and creators. For that purpose, the government adopted the Ottoman Copyright Law issued in 1910. This Law was in force until 1992, when Copyright Law No. 22 was approved by the Parliament and published in the Official Gazette. Five major amendments to the Law were added in order to fulfil Jordan's commitments in International Agreements and Treaties. These Amendments were:

- Amended Law No. 14 for the Year 1998
- Amended Law No. 29 for the Year 1999
- Amended Law No. 88 for the Year 2003
- Amended Law No. 8 for the Year 2005
- Amended Law No. 9 for the Year 2005

For Copyright and Related Rights, Jordan signed and ratified the following agreements:

- Berne Convention for the Protection of Literary and Artistic Works, ratified on 28/7/ 1999
- WIPO Copyright Treaty (WCT), ratified on 42/4/ 2004
- WIPO Performances and Phonograms Treaty (WPPT), ratified on 24/5/ 2004; Jordan is considered the first Arab country to have signed and ratified (WCT and WPPT)
- Trade-Related Aspects of Intellectual Property Rights (TRIPS), ratified on 16/7/ 2001.
- Arab Convention for the Protection of Copyright and Related Rights since 2007.

The most important articles of the Law are:

Article (3), paragraph (b), which in line with the Berne Convention identifies protected works as follows:

1. Books, booklets and other written material.
2. Works delivered orally such as lectures, speeches and sermons.
3. Theatrical works, lyrics and musical plays and pantomime acting.
4. Musical works whether expressed in notes or not and whether accompanied with words or not.
5. Cinematic and audio and visual broadcasting works.
6. Painting, photography, sculpting, architecture, applied arts and lithographical works.
7. Illustrations, maps, designs, blueprints and three-dimensional works related to geography and topography.
8. Computer software whether in the origin language or machine language.

On the other hand, Article 7 introduces works that are excluded from protection such as laws, regulations, judicial decisions, administrative committee's decisions, and international agreements and other official documents and translations of these works, news published, broadcasted or delivered publicly and works which are considered as public domain.

¹Prepared by: Ena'am Yousef Mutawe, Head of Research Section Department of the National Library.

The Law also addresses the financial and moral rights of the author through granting him the right to attribute his work, and to decide the publication of his work and make amendments to it and to challenge any infringement or distortion on his work, as well as the right to withdraw his work from circulation if there are serious and legitimate reasons to do so, in addition to the right to exploit his work financially in any way he chooses. The term of protection is the lifetime of the author plus fifty years after his death, twenty-five years for applied arts.

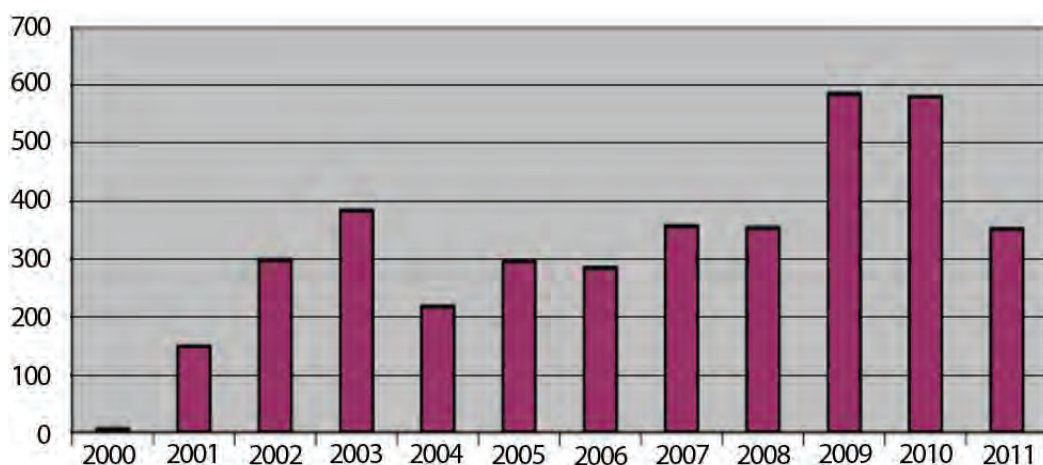
The criminal penalties for breach of the Law are imprisonment for a period not less than three months and not exceeding three years, or a fine of not less than one thousand dinars and not more than six thousand dinars, or both for those who offer for sale a counterfeited work or copies of that work knowing that it is counterfeited.

The Law in its last amendment, and in its application of its commitments in WPPT, introduced Articles concerning Rights Management (RM) and Technological Protection Measures (TPM). Article 54 of the Law addressed the RM of authors and considered as a violation of the Law any deletion or alteration of any electronic RM information without the permission of the right holder and distribution or importing for distribution or broadcasting or making available to the public copies of the works or fixed performances or audio recordings while knowing or having an adequate reason or evidence to know that the information has been removed or altered without permission from the right holder. It also introduced a definition of the information that guarantees RM as the information provided by the right holder that identifies the work, audio recording or performance, the author or performer or producer of an audio recording, the right holder of the work or performance or audio recording, the conditions that must be present to make use of and benefit from a work or performance or audio recording and any numbers or encoding that define this information.

Article 55 of the Law considered as violations the acts of circumvention, counteraction or disablement of effective technological measures, in addition to the production or importing or selling or displaying for the purpose of selling or leasing or possessing for a commercial purpose or distribution or marketing any piece or appliance or service or method that was designed or produced or used for the purposes of circumventing any effective technological measures or counteracting or disabling them. It also provides a definition of the term 'technological measures', to mean any technology or measure or method used such as encoding or controlling the extraction of copies that are used to prohibit or limit carrying out any work unlicensed by the right holder.

The Copyright Office was established in the Department of the National Library in the Year 2000, to be the competent authority to enforce Copyright Law in Jordan. According to Article 36 of the Law, copyright officers are granted the authority of Judicial Police in their implementation and enforcement of the Law. Their responsibilities cover the whole Kingdom and they handle it through two major roles: *ex-officio* inspection tours or as response to complaints from the right holders.

Figure 2.1: Copyright Cases



(Source: Department of the National Library, Ministry of Culture, HK of Jordan)

Despite the existence of the legal framework and empowering the staff in charge of monitoring and inspection both technically and legally; the enforcement of the law is still below expectations. This is due partly to the insufficient awareness on the part of the sector, and the inadequate training of other agents in the Jordanian justice system (police officers, prosecutors and judges). In addition to the above-mentioned factors, the discretion of the politicians and administrators are important elements in the enforcement schemes. The table below demonstrates the variation in the number of infringement cases.

Table 2.1: Progress of Copyright Office work since the Year 2000

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
No. of cases	6	149	298	384	218	296	285	357	354	586	581	352

(Source: Department of the National Library, Ministry of Culture, HK of Jordan)

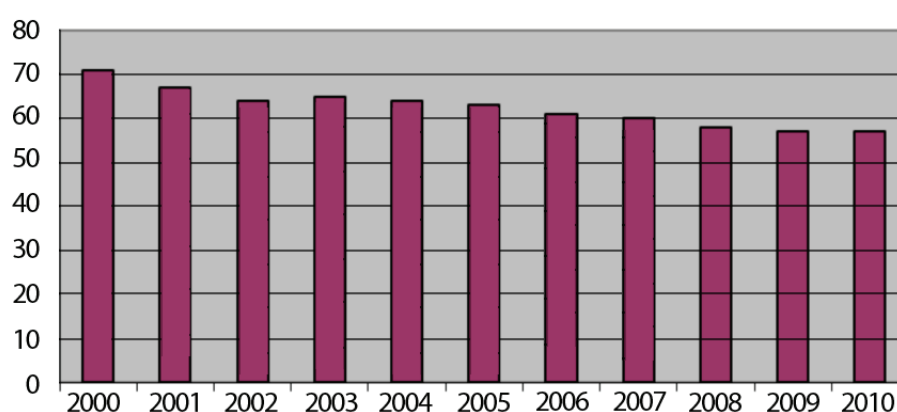
The office referred nearly 4,000 cases to the competent court. Most of the seized materials were CDs and DVDs, books, Play Station games and computer programs. It is clear from the above table that the enforcement level is higher when the issue is given political attention, as occurred in 2009 and 2010: the number of cases dropped by close to 40% in the following year. Consequently, the piracy rate becomes lower as enforcement improves; as shown in Chart 2.2 (below).

According to the Eighth Annual BSA Report, Jordan has managed to reduce software piracy rates in 2010 to 57%. The progress in software piracy reduction can be seen in the following table (Table 2.2):

Table 2.2: Software piracy rates

Year	1994	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Piracy Rate %	87	71	67	64	65	64	63	61	60	58	57	57

Figure 2.2: Piracy Rate %



(Source: Department of the National Library, Ministry of Culture, HK of Jordan)

In order to ensure best practices and enforcement of Copyright Law, a permanent Enforcement Committee was formed in 2006, and was re-formed twice in 2008 and 2010 to include all the government partners in the enforcement process such as: the Department of the National Library; the Judicial Council; the Ministry of Telecommunication and Information Technology; the Ministry of Municipalities Affairs; the Public Security Department, Intellectual Property Section; the Audiovisual Commission; the Customs Department; the Telecommunications Regulatory Commission; the National Information Technology Centre, and Amman Great Municipality. The Committee convened periodically to discuss the developments in enforcement status as well as enhancing cooperation and coordination of the parties in this process.

3. Copyright-based Industries in the National Context

3.1 General Overview

Jordan is located in the south-west of Asia; it is a relatively small state with an area of 89 thousand square kilometres and a population of about 6.7 million people. The country has very few natural resources and is considered one of the poorest countries in the region with a GDP of JD 20.5 billion and per capita GDP of JD 3,277 in 2011 (Central Bank of Jordan, Monthly Statistical Bulletin, March 2012).

The scarcity of natural resources has forced the policy-makers of Jordan to invest heavily in human resources. Today, Jordan has more than one-third of its population in its educational system. Around 2 million students are receiving their education through 6172 schools, 29 universities and 52 colleges.

Despite the fact that Jordan constitutes only 3% of the Arab population, it has more than 10% of all universities in the Arab world, which gives Jordan a competitive advantage among its neighbouring Arab states. Over the past six decades, hundreds of thousands of Jordanians have been the driving force behind many development schemes in the oil-rich Arab states.

Since the inception of the state, Jordan has placed a high value on developing the talents and nurturing the creativity of its people. It was the late King Hussein who coined the phrase 'Al insan aghla ma namluk' meaning: 'the human is our most precious property'. This motto is a true expression of the Jordanian policies regarding human resources.

Following the path of his late father, King Abdullah the Second has instructed his governments to adopt an educational philosophy leading to the implementation of a knowledge-based economy, hoping to enable Jordan to take the lead in the information technology field and to become a regional hub for information technology and other creative arts industries.

Toward this goal, computer science and technology have become integral parts of the Jordanian educational system at all levels, and the use of this technology has gained momentum in all provinces and among all age groups and socioeconomic classes in the kingdom. As a result of this, today more than 3.5 million Jordanians use computer technology and one form or another of social media: Jordan is responsible for creating more than 75% of the Arabic content of the internet.

Despite all these achievements, the country is still facing major challenges in implementing its ambitious plan to develop its human resources and to create the opportunities for Jordanians to realise their full potential. One of the major challenges lies in the inability of the economy to create enough jobs for the stream of graduates; today the 29 universities push around 50 thousand graduates out into the already congested job market each year. The surplus graduates join the tens of thousands of unemployed young people, increasing the pressure on the economy and exerting further pressure on families and communities.

Due to its limited natural resources and the shrinking opportunities for employment in the neighbouring states, Jordan today faces one of the most serious unemployment problems in the region. According to the official figures, the overall unemployment rate is around 11.6%, although other estimates put the figure at 24%. Most of the unemployed are college graduates. The high unemployment rate has an enormous effect on all spheres of life and the quality of education as well, since students see no hope at the end of the tunnel.

It is deeply frustrating for Jordanian youth, who have joined universities to achieve their dream of education, job, money, house, family and stability, to see this dream shattered by the growing unemployment. The immediate expression of this frustration can be observed through the frequent incidents of campus violence. In recent years all the universities have registered several cases of tribal fights and non-campus-related conflicts. The increased incidents and prevalence of campus violence have caught the attention of policy-makers at all levels and raised some serious questions about the adequacy of the Jordanian higher educational system to develop the talent of Jordanian youth and to meet the needs of the local and regional job markets.

Faced with these economic and social challenges, Jordan needs to redefine its priorities and to maximise the return of its best resources: human talent; therefore, the development of the cultural-based industries and the copyright-related industries are Jordanian priorities par excellence.

In order to embark on this important endeavour, a thorough assessment of this field is a necessity; for this reason, the current study is an attempt to address the issues related to these industries in terms of definition, composition, contribution to the GDP, employment and their added value.

This section will present an overview of the industries falling under the Copyright Law in Jordan.

3.2 Copyright-based industries

3.2.1 Press and Literature

Jordan is classified as one of the top four countries in the Arab world in terms of publishing and distribution of literature, along with Egypt, Lebanon and Syria; Jordan publishes and distributes more than 15% of the textbooks in Arabic.

In 2011, the number of publications registered with the National Library exceeded 2,000 publications; this number does not include publications which did not seek protection through the National Library. According to the Jordanian Publishers Association, there are more than 140 publishing houses in Jordan, 40 of which are responsible for the publication of 70% of all published literature in Jordan.

Most published materials are textbooks in the fields of humanities: education, religion, special education, research methods and literature. While the authors are mostly Jordanians, publishers find it easier to print their materials in Beirut or Cairo. This phenomenon is due to the lower cost of materials and the incentives offered in Lebanon and Egypt and denied by the Jordanian financial system.

The markets for Jordanian published materials can be found in the Gulf States, Algeria, Tunisia, Libya and Morocco. The sector employs around 2,000 people directly. Its contribution to the economy is quite small and might be even smaller if we consider the fact that printing is mostly done outside Jordan.

The case of the press is slightly different. The Jordanian press enjoys a high level of freedom, and this atmosphere has encouraged journalists from all political backgrounds to publish daily and weekly journals. While this phenomenon reached its peak in the mid 90's of the past century, it is declining today as the electronic and social media are gaining more popularity.

Today there are 7 daily newspapers with a moderate level of circulation, that is, not more than 200,000 copies a day: Al-Dusters, Al-Rai, Al-Ghad, Al Arab al yaum, Al-Deyar, Al-Sabeel and the Jordan Times. In addition, there are more than 20 weekly and monthly journals with a very low level of distribution; some of them have appeared a few times in the market and disappeared, others do not follow a regular schedule of publication. This sector employs more than 2,000 people, half of whom are journalists.

In general terms, this sector is declining due to many internal and external factors. Many readers find the newspaper an old source of news compared with the electronic news websites and the news satellite channels which are constantly updated. The decline has left its impact on the value of newspaper stocks. For example, the price of Al-Rai securities in the stock market has dropped from 20 JDs two years ago to less than 4 JDs today.

3.2.2 Music, Theatrical Production and Operas

Traditionally, music, theatre and operas are not popular in Arab cultures. For so many centuries, Arab Muslims paid very little attention, if any, to this type of art; in many cases performing these arts was prohibited and condemned.

In recent years, Arab attitudes toward music and theatre have changed slightly. Today there are hundreds of young talented Jordanians aspiring to become musicians and actors, yet very few have found their way to fame and popularity. As a response to the change in the public sentiment towards music, many universities

and institutes have begun teaching music and acting. Thousand of Jordanians are developing their talents and pursuing careers in music, theatre and singing.

Music festivals have become part of the Jordanian culture and are now tourist attractions, drawing audiences from neighbouring Arab countries. As well as the Jerash festival, musicians are engaged in more than 20 music festivals a year. In the past decade, many music groups and bands have emerged and made their mark in the Arab and world arenas. Among these, Tareq Al-Nasser, Hitham Sukkaryeh and the Khoury Trio have composed music which has gained world-wide popularity, inspiring many young Jordanians to follow their path.

Like sports, many young people in the Arab world see music as a ladder for their aspiration to break out of poverty, a means of upward mobility to fame and wealth. This has led to the emergence of a new industry which brings together singers, musicians, instructors, recording studios, events management, recording agencies, producers, and so on. In Jordan today there are: seven official colleges and institutes teaching music, 25 recording studios, five companies for producing CDs and cassettes, two individual recording companies and 110 singers and musicians running their own production.

Theatrical production started as early as the beginning of the twentieth century, yet it has not left a significant mark on the Jordanian way of life. Despite the presence of four huge outdoor Roman theatres, 26 relatively modern theatres and more than 200 professional actors, few Jordanians have the habit of going to the theatre: thus, theatre production has remained limited in quantity and poor in quality. With the exception of a few plays focusing on domestic issues and satirising politicians, Jordanians can hardly highlight a play that has left a mark on their memories.

Jordan has no opera house; in fact, the Amman municipality launched a project to build an opera house five years ago, but until today this project has not seen the light.

3.2.3 Radio and Television

In Jordan, radio broadcasting started as early as 1958, followed by the first Jordan television channel in 1968. Today, there are more than 30 radio and 40 television channels. In addition, Jordan is a base for 260 satellite and 65 radio channels which operate their broadcasting through the Media City in Amman.

This sector provides job opportunities for more than 5,000 Jordanians. Jordan's universities and the Media Institute offer a set of training and academic programmes to students from Jordan and neighbouring Arab states.

For many decades, Jordan has been the main supplier of human resources to this sector in the Arab states: Jordanian journalists and technicians are found in almost every satellite channel and radio station in the neighbouring Arab states.

3.2.4 Visual and graphic arts

In addition to their artistic value, visual and graphic arts are instrumental in advertisement, decoration, urban planning and architectural design.

Jordanian visual and graphic artists are involved with developments taking place in Jordan and neighbouring countries. Modern communication tools and technology have been extremely useful in the development of this art and enabling the artists to exhibit their creations to potential clients beyond their local communities.

Due to frequently held annual exhibitions and specialised conferences, visual and graphic arts are gaining popularity in Jordan and the region. The Jordan Artists Association represents 135 accomplished artists; this number does not include other artists who function independently.

Six Jordanian universities provide a bachelor degree course in graphic design. Artists exhibit their productions in galleries, art festivals and through social media technology. The National Museum for Art has played an important role in raising the awareness of visual and graphic arts in Jordan among Jordanians and tourists alike. The museum has exhibited more than 2,000 artworks by 520 artists from 43 countries. In addition,

there are 11 cultural centres with one hall or more for different artistic exhibitions, such as The Royal Cultural Center.

3.2.5 *Photography*

Photography is becoming more popular among large sectors of the Jordanian population, yet it is not a well-developed art. In fact, many photographers have never received any formal training nor joined a professional association.

In the last two decades, some efforts have been made to develop this art. The Jordanian Society for Filming was established in 1994 with the aim of developing the profession. As a result, competent photographers were employed and encouraged to use their talent in capturing the beauty of the historical and tourist attraction sites in Jordan, such as Petra and the Dead Sea. Some of their works were published and distributed across the world.

Today, the members of the Jordanian Photographers Association exceed 200 photographers and their work is exhibited in many local, regional and international exhibitions.

Despite the wide spread of photo capturing tools and their accessibility to all age groups and segments of society, the business of professional photography is growing rapidly. This growth can be attributed to the increase in social events and formal meetings and conferences. Weddings, engagements, graduations and birthday parties are among the events requiring photographers: in Jordan, families' frequent gatherings and celebrations demand the presence of photographers to commemorate their event. There are more than 140,000 engagements and weddings, thousands of graduations and birthday parties annually. These events generate a huge amount of work opportunities for hundreds of photographers.

3.2.6 *Information and Communication Technology (ICT)*

It should be mentioned here that this combined category of ICT incorporates several of the WIPO categories. The ICT sector consists of around 531 companies in Telecoms, Information Technology (IT), Online and Mobile Content, Outsourcing and Games Development. In 2010, ICT total revenue reached US\$ 2 billion compared to US\$ 560 million in 2000. Revenue growth over that period was around 13.6%. ICT's contribution to the national economy amounted to 14.1% of GDP and directly accounted for 1.23% of total employment. The sector exports to more than 45 countries, including Saudi Arabia (34%), Iraq (13%), UAE (13%), USA (7%), Oman (5%) and others (28%).

The segments of the ICT sector include the following:

Telecom	: Operators; ISPs/ASPs
IT Infrastructure	: Hardware; Networking
IT Software	: Enterprise Solutions; Emerging Applications
Online and Mobile	: Content; Applications
Outsourcing	: IT; Business and Knowledge Process
Games	: Online and Mobile; Console

In 2010, a comprehensive survey was conducted by the ICT Association, generating the most reliable data on the sector.

Clearly, not all the ICT sector can be considered as copyright industries, rather, a portion of most of the activities in this sector enter into the calculation and can be accounted for. However, the companies that are closely identified as copyright-related totalled 251 in 2010, with revenues amounting to US\$ 250 million distributed as follows:

Table 3.1: ICT revenues in 2010

ISIC	Description	Number of companies	Revenue (\$ million)
5820	Software Publishing	24.0	15.5
6201	Computer Programming Activities	180.0	81.6
6202	Computer Consultancy and Computer Facilities Management Activities	33.0	77.4
6311	Data Processing, Hosting and related Activities	14.0	75.4
Total		251.0	249.9

Source: ICT Association, ICT and ITES Statistics Yearbook 2010

In 2010, ICT total revenues exceeded US\$ 731.8 million, cumulative FDI was more than US\$ 142.5 million and IT and Information Technology Enabled Services (ITES) employment was 9,858 employees. Revenues from the telecom activities exceeded US\$ 1,186.6 million, with mobile and internet subscribers surpassing 6.6 million and 2.3 million respectively. Employment in ICT reached 4,739 employees.

3.2.7 Advertising Services

Advertising is a crucial element of any economy. With free trade and growing competition, advertisement is becoming an integral part of every business in Jordan: this sector has witnessed an enormous growth in the last decade. It is operated by more than 1,000 advertising agencies.

In the last five years, Jordanian businesses, firms and corporations have spent more than 200 million USD annually on advertising. Due to legal and procedural constraints, newspapers and outdoors advertisement are preferred by clients and small businesses especially advertise their production and services in this way.

The television share of the whole advertising market in Jordan is less than 10%.

3.2.8 Motion Picture and Video

Over the last 40 years, Jordan has played a pivotal role in advancing Arabic drama production in the form of TV and radio series. During the '70s and '80s of the past century, Jordanian productions were very popular in many Arabic-speaking countries. The popularity of Jordanian TV drama in the Arab world during that time was a testament to the success of Jordan in creating the right environment for their cultural industries to flourish.

Unfortunately, due to the Gulf War, many Arab countries boycotted Jordanian drama productions. Consequently Jordan lost all the major markets for its drama production and competitors, Egypt and Syria, took its place; since then, the industry has been suffering the consequences of that major setback.

Today, there are 24 audiovisual production companies. Their productions include: television drama, television variety programmes, children's programmes, documentaries, dubbing cardboard kids, translation and dubbing of foreign movies and serials, publicity and advertising and feature films. The nature of this work depends on the technical competencies of writers, actors and directors, photographers, technicians for editing, decor, sound and lighting, and production managers and broadcasters. This sector employs an estimated 3,000 people.

In Jordan, feature film production is very limited, but TV drama series are abundant and popular. One of the major factors responsible for the popularity of Jordanian TV production is the unique talent of the scriptwriters. Dr.Waleed Waif and Jamal Abu Hamdan are among the best Arab scriptwriters and the most popular TV drama series and Arab films have been based on their work – *Salah al-deen*, *Al-Hajjaj*, *Saqer Quraish*, *Al-Taghreebeh*, etc.

Jordan hosts one of the most reputable production centres in the region. The Arab Centre for Media and Production is one of the major driving forces behind the success of Jordanian drama. In the last five years the

centre has been able to produce some productions which were noted at the Arab and international level. The recent drama series *Al Ijteyah* was able to compete and win the Amy award at the global level.

Next to scriptwriters, actors and technicians are the backbone of Jordanian production; they have earned a very high reputation and esteem for their ability to preserve the Arab tradition and history through the roles they have played in Arabic drama. However, in recent years, many artists have expressed dissatisfaction with their work and living conditions, blaming government lack of interest and support for the state they are in.

The growing frustration led the artists' associations to organise a general strike for more than six weeks in 2012; their list of demands evolved around job opportunities, health insurance, social security and the adoption of a national strategy aiming at the development of the sector.

3.2.9 Collective Management Societies (CMS)

A Collective Management Society (CMS) is defined as a legal not-for-profit or a non government organisation (NGO) with the task of protecting authors and rights owners and collecting and delivering the amounts that would be obtained in their favour as a result of copyright or any related rights. It is well recognised that collecting societies are an important element of the copyright infrastructure. The efficient functioning of such societies can substantially increase the direct income to creators generated by their copyright. In Jordan, although there are several NGOs operating in the copyright sector, such as the writers' union, artists' union and journalists' union, but these NGOs do not exercise any functions regarding the collection of rights-related revenues. Nevertheless, those organisations have a substantial number of members and they collectively undertake activities to protect their professional rights. It is believed that those organisations can be encouraged and directed towards collection activity through awareness, training and empowerment.

4. Contribution of the Copyright-based Industries to GDP

Chapter Four is divided into six sections covering value added and growth in the economy of Jordan, followed by value added and employment in the copyright industries. It goes on to estimate the effects of the copyright industries on the economy.

4.1 GDP and Personal Services²

In 2006 and 2009, GDP at market prices amounted to JD 10,675.4 million and JD 16,912.2 million respectively and average annual percentage change was 17.6% during this period. On average, the share of the services sector was 65.5% of GDP while the share of GDP of the social and personal services sector was 4%.

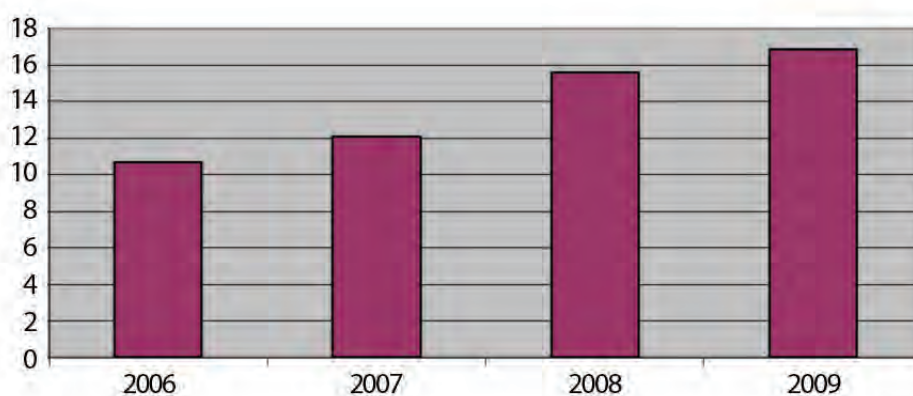
It is clear that the Jordanian economy is services-oriented and the latter contributes 65.5% of value added (on average). Personal services, which include many of the cultural activities such as literature activities, creativity, video recording, photography, music, publishing, composing, writing, etc., comprise 4% of GDP.

Table 4.1: Services Share in GDP and Annual Change 2006-2009

Year	2006	2007	2008	2009
GDP(million JD)	10,675.4	12,131.2	15,593.4	16,912.2
Annual Change (%)	19.6	13.6	28.5	8.5
Share of Services Sector (%)	68.1	65.5	63.5	64.9
Share of Personal Services Sector (%)	4.2	4.4	3.8	3.7

Source: Central Bank of Jordan, Monthly Statistical Bulletin, vol. 47, No.8, August 2011.

Figure 4.1: GDP: 2006-2009



Source: Central Bank of Jordan, Monthly Statistical Bulletin, vol. 47, No.8, August 2011.

4.2 Growth

During the period 2006-2009, growth rate of GDP at constant prices was 6.9 on average, while that of social and personal services was higher at 10.1. Also, growth in this sector was the highest across all the sectors of the economy.

²Personal services include education, health, security, photography, motion picture and video production, radio and TV, drama and music, arts, entertainment and others. Hence, most cultural activities (writers, creators, artists, etc.) are classified under personal services.

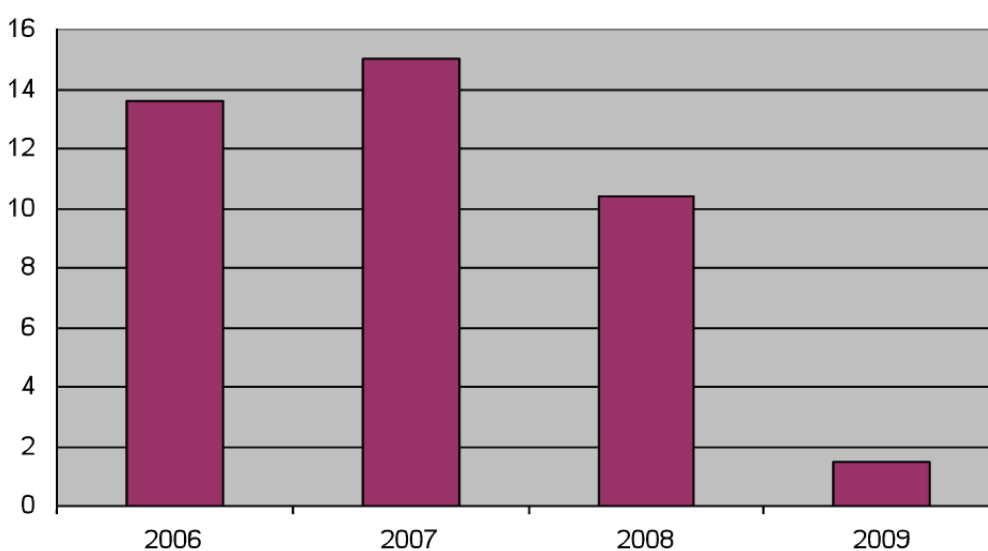
Notwithstanding the importance of the other sectors, much attention was addressed to the services sector due to its large share in GDP, its higher levels of growth and the high absorption rate of the labour force. However, the economy of Jordan is relatively small and small-scale enterprises play a significant role in driving growth and creating job opportunities, which is a main characteristic of the services sector. In this regard, cultural activities are undertaken by small enterprises having relatively little capital compared to labour input.

In comparison with the other sectors of the economy, average growth in constant prices during the same period (2006-2009) amounted to 6.9% in agriculture, 10.2% in electricity and water and 9.2% in construction. The mining industry showed a negative growth of -5.5% due to the collapse in world markets following the global financial crisis (Strategy Consulting, 2010).

Table 4.2: Growth Rates of GDP and Social and Personal Services during 2006-2009 (at constant prices)

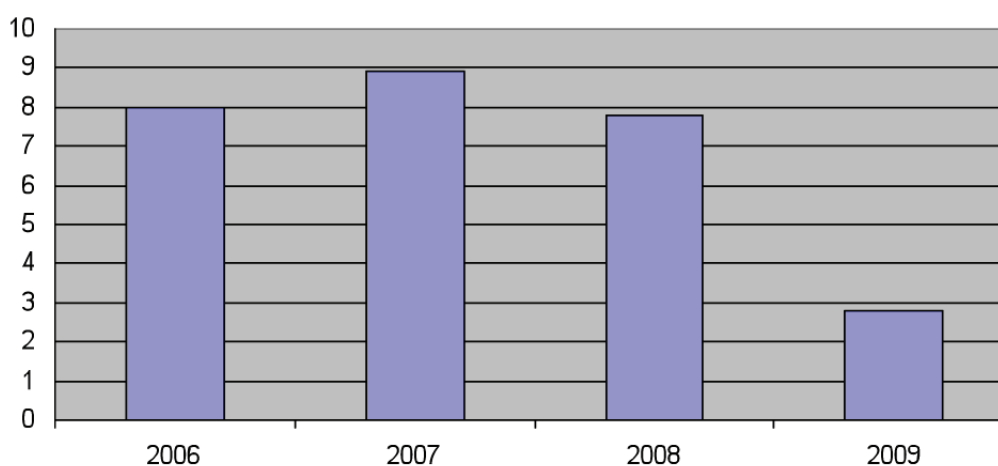
Year	2006	2007	2008	2009
GDP	8.0	8.9	7.8	2.8
Social and Personal Services	13.6	15.0	10.4	1.5

Figure 4.2: Growth Rates of Social and Personal Services (%)



Source: Central Bank of Jordan, Monthly Statistical Bulletin, vol. 47, No. 8, August 2011.

Figure 4.3: Rate of GDP (2006-2009 (%))



4.3 Value- Added

4.3.1 Core Copyright Industries

Press and Literature activities comprised half of the total value-added of the core copyright industries, followed by the software and database industries with 20.5%, radio and television activities' share was 10%, motion picture and video industries constituted 6.4%, advertising services contributed 5.6%, photography comprised 4% and music, theatrical and opera's contribution was 2.7%.

Publishing and printing is dominated by printing establishments (476) compared to publishing of books (54) and newspapers (64). The majority (540) are small-scale, employing fewer than ten workers and only nine establishments employed more than 100 workers. Annual revenues of 379 establishments did not exceed JD 10,000; 84 establishments' revenues ranged between JD 10-20,000 and 58 establishments reached revenues of more than JD 100,000. The publishing industry is rather weak, due to the fact that most writers find it unproductive and of little benefit to produce books or publications. Writing and publishing activities are rather unrewarding and create few incentives to get engaged in publications.

The same situation is mirrored in the programming industry (software and database). 45 establishments were engaged in software development and programming, 35 of which employed fewer than ten workers, and 21 establishments realised revenues of less than JD 10,000, while seven establishments achieved annual revenues of more than JD 100,000.

Radio and television numbered 11 establishments and all of them were located in Amman. Only one firm employed more than 500 employees, while the remaining ten employed fewer than 20 workers. The revenues of only three establishments exceeded JD 100,000 annually.

Motion picture and video industries numbered 72 establishments; all but two of them employed fewer than 100 workers. Most of them generated revenues of less than JD 60,000 and 15 establishments generated revenues of more than JD 60,000.

Photography activities were undertaken by 584 establishments, half of which were located in Amman. The majority, (580 establishments) were small-scale, employing fewer than ten workers, and generated revenues of less than JD 20,000 thousand.

There were 14 establishments engaged in music and theatrical activities, ten of which were located in Amman. All but one employed fewer than ten workers, with revenues exceeding JD 20,000.

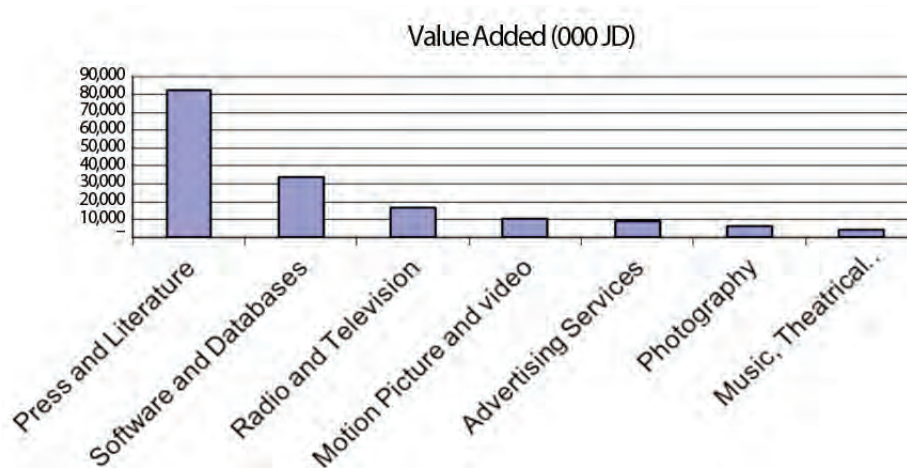
Similar to the other sectors of the economy, the CRI are small-scale enterprises employing fewer than ten workers and generating revenues of less than JD 20,000 annually. Most of those establishments target the domestic market and operate in Amman to a large extent.

Table 4.3: Contribution of Individual Core Industries Subgroups in Value Added, 2006

(Contribution in 000JD)

	Value Added	As % of Total Category
Core Copyright Industries	162,878	100.00%
Press and Literature	82,739	50.80%
Music, Theatrical Productions, Operas	4,366	2.70%
Motion Picture and Video	10,452	6.40%
Radio and Television	16,275	10.00%
Photography	6,546	4.00%
Software and Databases	33,403	20.50%
Visual and Graphic Arts	-	-
Advertising Services	9,097	5.60%
Copyright Collecting Societies	-	-

Figure 4.4: Core Copyright Industries



Source: Department of Statistics, Amman, HK of Jordan

4.3.2 Interdependent Copyright Industries

The survey of 2006 did not report any activities related to the manufacturing of apparatus or equipment such as televisions, radios, videos, recording devices, computers, musical instruments, photography and photocopiers (ISIC codes: 3230, 5000, 3692, 3320, and 3600). Nevertheless, trade activities in those items (both wholesale and retail) generate substantial amount of value added and job opportunities which need to be accounted for. The study relied on consultations and in-depth interviews with professionals and practitioners, in addition to data published by the Department of Statistics to estimate the relevant amounts of value added. The estimated amounts are presented in Table 4.4 below.

The survey highlighted activities related to the manufacturing of paper products (pulp, paper and paperboard – 2101; corrugated paper and paperboard and containers of paper and paperboard – 2102; other articles of paper and paperboard – 2109). However, not all the value added of the paper activities reported by the survey can be considered as part of the copyright component – paper board, for example, clearly needs to be excluded from the accounts.

The table below shows that trade activities in TV sets, radios, VCRs, CD-DVD players and recorders constituted 40.4% of the value added of the interdependent copyright industries, which was followed by trade activities in computers and equipment (35.6%). Paper activities consisted of 11.3% of the total value added of interdependent copyright industries; 7.5% was contributed by blank recording material; photocopiers' share was 3.7% and the remaining 1.4% was the contribution of photographic, cinematographic and musical instruments.

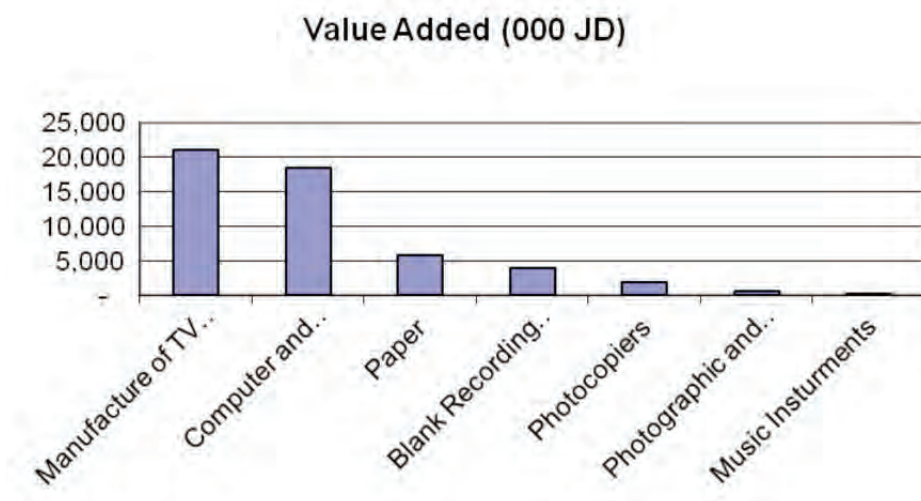
The survey reported 106 firms working in the manufacturing of paper, 71% of which were located in Amman. 81 establishments (76%) were small-scale, employing fewer than 20 workers, 17% were medium-sized firms employing between 20-99, and the remaining 7% employed more than 100 workers. In terms of annual revenues, 37% generated revenues of more than JD 60,000.

The survey reported 11 firms engaged in the manufacturing of other chemical products (ISIC code 2429). All of them were located in Amman and employed fewer than 20 workers; however, five firms generated revenues of more than JD 100,000 and four generated less than JD 10,000.

Table 4.4: Contribution of Interdependent Copyright Industries Subgroups in Value Added, 2006 (000JD)

	Value Added	Copyright factor in %	Copyright Value-added	As % of Total Category
Interdependent Copyright Industries	51,929		51,929	100.00%
Manufacture of TV sets, Radio, VCRs, CD-DVD players	21,000	100%	21,000	40.40%
Photocopiers	1,900	100%	1,900	3.70%
Photographic and Cinematographic instruments	700	100%	700	1.30%
Music Instruments	65	100%	65	0.10%
Computer and Equipment	18,500	100%	18,500	35.60%
Blank Recording Material	3,894	100%	3,894	7.50%
Paper	9,783	60%	5,870	11.30%

Figure 4.5: Interdependent Copyright Industries



Source: Department of Statistics, Amman, HK of Jordan

4.3.3 Partial Copyright Industries

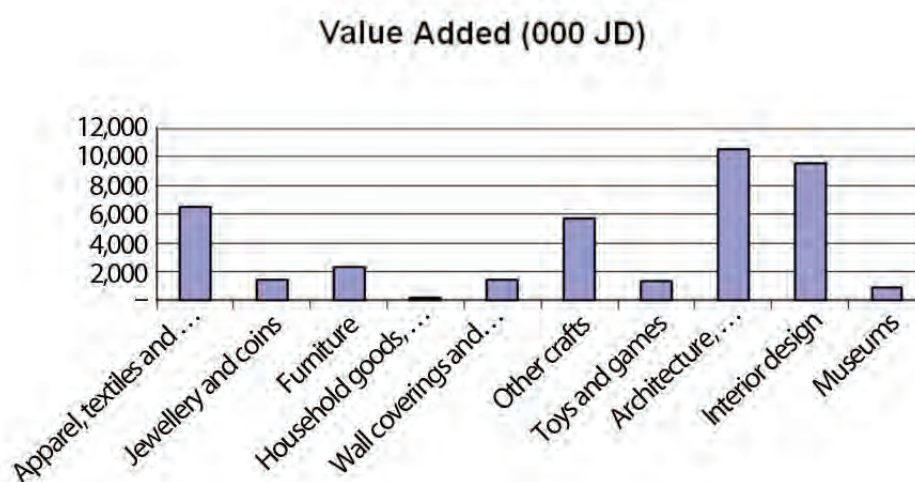
Architecture, engineering and surveying contributed the highest value added to the economy among partial copyright industries (34.3%), followed by apparel, textiles and footwear (30.5%), and interior design (15.6%). Furniture contributed 7.6%, while wall coverings and carpets as well as other crafts' contribution were 4.6% each. Jewellery and coins' share was 0.9%, which was similar to toys and games, household goods, china and glass (0.8%), but higher than museums (0.3%).

It is worth reiterating here that only some of the activities of the partial copyright industries are related to copyright, which necessitates calculations of factor contributions. The study calculated those factors, presented in Table 4.5 below, by relying on the input-output tables supplied by the Department of Statistics, and on consultations and in-depth interviews with professionals and practitioners in the relevant field, as well as thorough investigations and calculations undertaken by the research team. Museums and galleries are very few in Jordan and their contribution to value added and employment is insignificant; also, a large part of their orientation is to engagements in copyright related activities. A factor of 50% was adopted, following similar cases in other countries.

Table 4.5: Contribution of Individual Partial Copyright Subgroups in Value Added, 2006 (000JD)

	Value Added	Copyright factor in %	Copyright Value Added	As % of Total Category
Partial Copyright Industries	612,159		39,702	100.00%
Apparel, textiles and footwear	186,446	3.50%	6,526	30.50%
Jewellery and coins	5,724	25.00%	1,431	0.90%
Furniture	46,465	5.00%	2,323	7.60%
Household goods, china and glass	4,816	3.00%	144	0.80%
Wall coverings and carpets	27,858	5.00%	1,393	4.60%
Other crafts	28,450	20.00%	5,690	4.60%
Toys and games	5,250	25.00%	1,313	0.90%
Architecture, engineering, surveying	210,250	5.00%	10,513	34.30%
Interior design	95,200	10.00%	9,520	15.60%
Museums	1,700	50.00%	850	0.30%

Figure 4.6: Partial Copyright Industries Value



Source: Department of Statistics, Amman, HK of Jordan

4.3.4 Non-dedicated Support Industries

The contribution of the wholesale and retail sector to GDP was JD 1026.8 million, while transport and communications value added was JD 1181.9 million. However, those figures relate to the sector as a whole, while only part of it can be included in copyright activity.

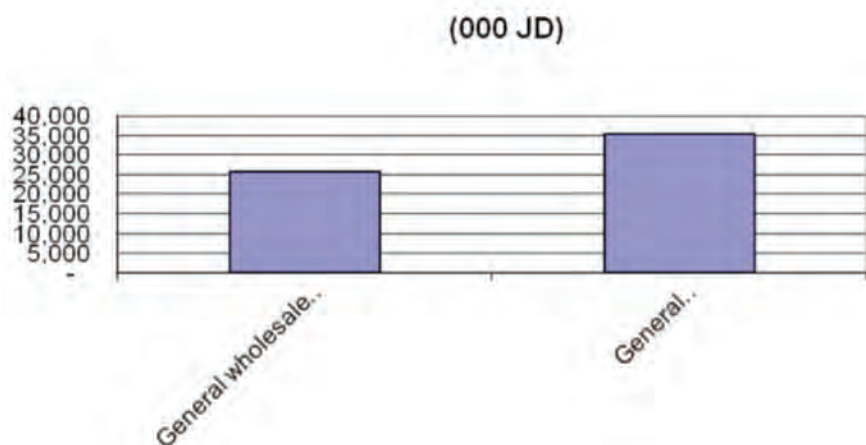
Wholesale and retail activities within the copyright-related activities as mentioned above were not available from the survey. For this reason, figures related to wholesale and retail were grouped under this item, which were then redistributed using the factors that were calculated from the input-output tables.

Consequently, according to the factors presented in Table 4.6 below, the contribution of wholesale and retail to copyright activities amounted to JD 25.7 million, while the contribution of transport and communications registered JD 35.5 million.

Table 4.6: Contribution of Non-dedicated Support Industries in Value Added, 2006 (000JD)

	Value Added	Copyright factor in %	Copyright Value-added	As % of Total Category
Non-dedicated Support Industries	2,208,744		61,128	100.00%
General Wholesale and Retailing	1,026,844	2.50%	25,671	42.00%
General Transportation, Telephony and Internet	1,181,900	3.00%	35,457	58.00%

Figure 4.7: Non-Dedicated Support Industries Value Added



Source: Department of Statistics, Amman, HK of Jordan

4.3.5 Total Copyright Industries Value-Added

Core copyright industries' value added reached JD 162.9 million (52%) in 2006, which was the highest among the other copyright and copyright-based industries, and interdependent copyright industries contributed JD 51.9 million or 16%. Partial copyright industries' value added was JD 39.7 million or 13%, while non-dedicated support industries' value added reached JD 61.1 million or 19%.

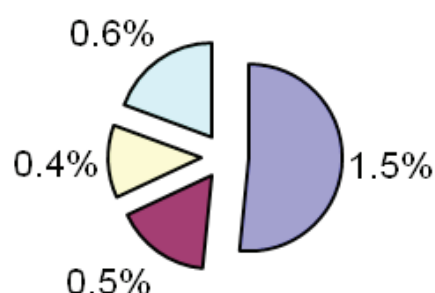
Hence, the total contribution of the copyright industries reached 2.96% of GDP in 2006; the relative importance of agriculture in GDP amounted to 3.5%, mining was 1.94%, manufacturing 17.7%, electricity and water 2.12% and construction 4.77%.

Table 4.7: Core Copyright, Interdependent Copyright, Partial and Non-dedicated Support Industries' Contribution to GDP in 2006

(000 JD)

	Percent	Value Added
Core Copyright Industries	52%	162,878
Interdependent Copyright Industries	16%	51,929
Partial Copyright Industries	13%	39,702
Non-dedicated Support Industries	19%	61,128
Total Copyright	100%	315,637
GDP		10,675,400
Per cent of GDP	2.96%	

Figure 4.8: Contribution of Copyright Industries to GDP



- Core Copyright Industries
- Interdependent Copyright industries
- Partial Copyright Industries
- Non-dedicated Support Industries

Source: Department of Statistics, Amman – Jordan; CBJ, *ibid*.

4.4 Employment by Category

The sector is characterized by small scale since only six establishments and thirty three establishments employ more than five hundred workers and between (100-499) workers respectively. The largest industries include paper manufacturing (1), radio and television (4), publishing and printing (1). The majority of establishments employ less than (10) workers. The employment estimates by the statistics department are reliable. However, it is worth mentioning here that copyright activities based on individual effort or created as a secondary activity which is not usually captured by the statistics since it is not registered were estimated by the research team-WIPO experts using methodologies adopted by other studies.

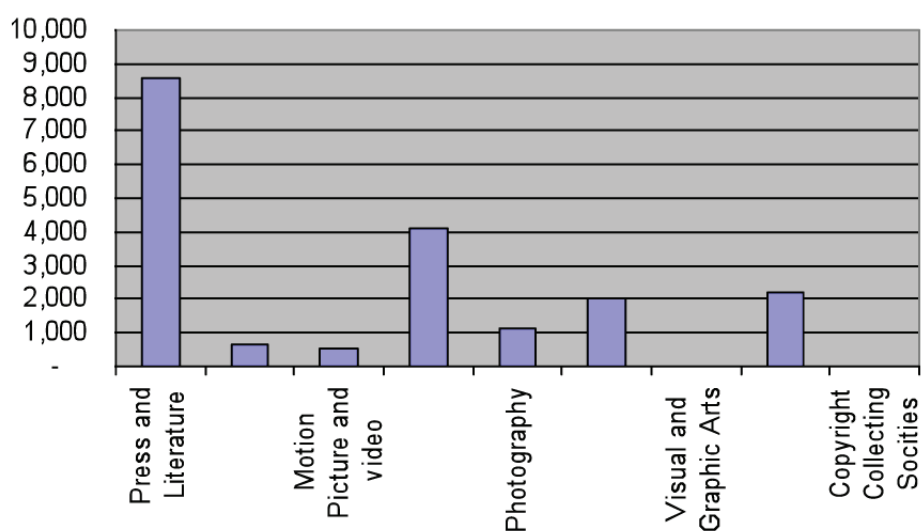
4.4.1 Core Copyright Industries

Press and literature industries employed 44.5% of total employment in the core copyright industries followed by radio and television (21.4%). Software and database industries employed 10.6%; advertising industries employed 11.4%. Photography employed 5.9%, music, theatrical and opera employed 3.5% and motion picture and video industries employed 2.8%.

Table 4.8: Employment in Core Copyright Industries

	Copyright Employment	As % of Total
Core Copyright Industries	19,288	100.00%
Press and Literature	8,584	44.50%
Music, Theatrical Productions, Operas	675	3.50%
Motion Picture and Video	532	2.80%
Radio and Television	4,118	21.40%
Photography	1,138	5.90%
Software and Databases	2,042	10.60%
Visual and Graphic Arts		-
Advertising Services	2,199	11.40%
Copyright Collecting Societies		

Figure 4.9: Employment in Core Copyright Industries by Category



Source: Department of Statistics, Amman – Jordan.

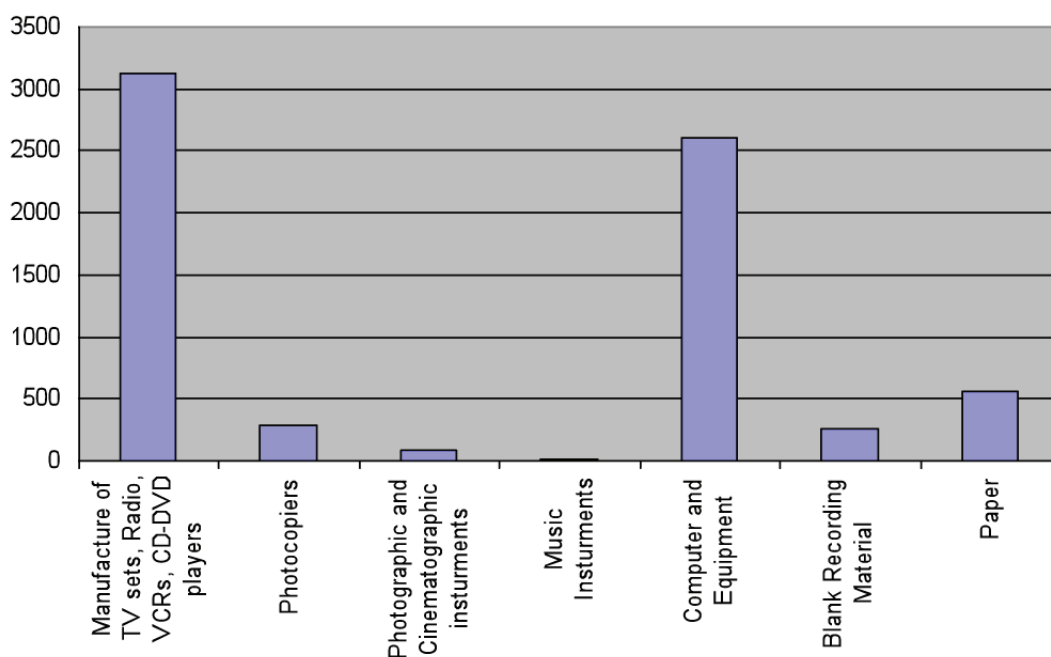
4.4.2 Interdependent Copyright Industries

Following the same methodology that was adopted for value added estimation, here the study showed that trade (both wholesale and retail) in items related to TV sets, radio, VCRs, CD-DVD players engaged 44.9% of the workers in the interdependent copyright industries, followed by computers and equipment. Next to them, paper industries employed 8.2% of total employment in the interdependent copyright industries, followed by photocopiers (4.2%) and blank recording material (3.8%). Lastly, photographic, cinematographic and music instruments employed 1.5%.

Table 4.9: Employment in the Interdependent Copyright Industries

	Total Employment	Copyright Employment	As % of Total
Interdependent Copyright Industries	6,943	6,943	100.0%
Manufacture of TV sets, Radios, VCRs, CD-DVD players	3,120	3,120	44.9%
Photocopiers	290	290	4.2%
Photographic and Cinematographic Instruments	90	90	1.3%
Musical Instruments	11	11	0.2%
Computers and Equipment	2,600	2,600	37.4%
Blank Recording Material	264	264	3.8%
Paper	568	568	8.2%

Figure 4.10: Employment of Interdependent Copyright Industries by Category



Source: Department of Statistics, Amman – Jordan.

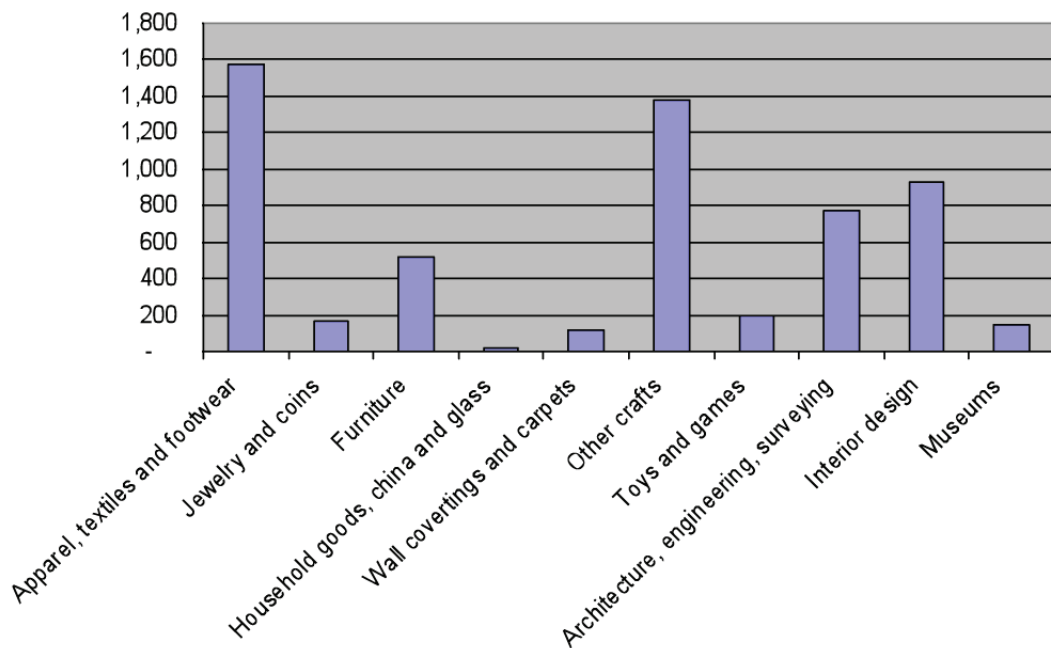
4.4.3 Partial Copyright Industries

Apparel, textiles and footwear employed 49.1% of total employment in the partial copyright industries, followed by architecture and engineering (16.9%), interior design (10.1%), furniture industries (11.4%), and other crafts (7.5%). Household goods, china and glass employed 0.7%, similar to jewellery and coins, while wall coverings and carpets employed 2.5%.

Table 4.10: Employment in the Partial Copyright Industries

	Total Employment	Copyright factor in %	Copyright Employment	As % of Total
Partial Copyright Industries	91,962		5,822	100.00%
Apparel, textiles and footwear	45,126	3.50%	1,579	49.10%
Jewellery and coins	649	25.00%	162	0.70%
Furniture	10,456	5.00%	523	11.40%
Household goods, china and glass	672	3.00%	20	0.70%
Wall coverings and carpets	2,344	5.00%	117	2.50%
Other crafts	6,886	20.00%	1,377	7.50%
Toys and games	770	25.00%	192	0.80%
Architecture, engineering, surveying	15,500	5.00%	775	16.90%
Interior design	9,261	10.00%	926	10.10%
Museums	298	50.00%	149	0.30%

Figure 4.11: Employment of Partial Copyright Industries by Category



Source: Department of Statistics, Amman – Jordan.

4.4.4 Non-dedicated Support Industries

The general wholesale and retailing sector employed 2,863 or 80% of total employment in the non-dedicated support sector, while general transport, telephony and internet employed only 886.

Table 4.11: Employment in the Non-Dedicated Support Industries

	Copyright factor in %	Total Employment	Copyright Employment	As % of Total
Non-dedicated Support Industries		144,041	3,749	100%
General wholesale and retailing	2.50%	114,520	2,863	80%
General transportation, telephony and internet	3.00%	29,521	886	20%

Source: Department of Statistics, Amman – Jordan.

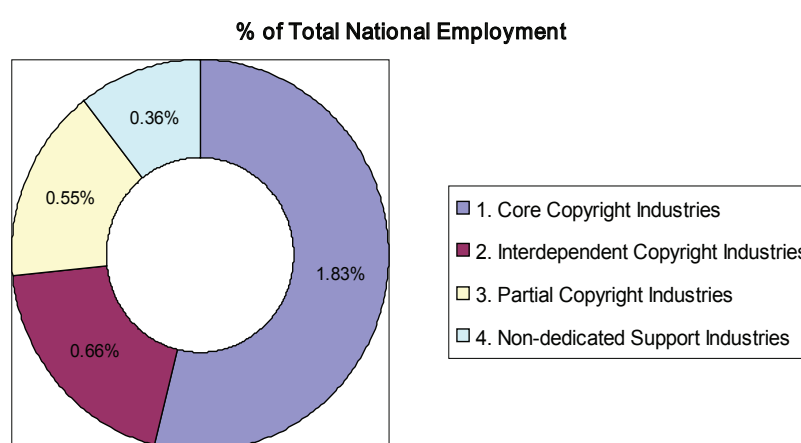
4.4.5 Employment in Copyright Industries

The total number of Jordanians employed in 2006 amounted to 1,055,847 (DOS, Labour statistics, Analytical Report 2005-2009). Core copyright industries employed 19,228 or 1.83% of the total; interdependent copyright industries employed 6,943 or 0.66%; partial copyright industries' contribution to employment reached 0.55%; and non-dedicated support industries' contribution was 0.36%. On the whole, 3.4% of the labour force is engaged in activities falling within the copyright sector.

Table 4.12: Employment in the Copyright Industries in 2006

Industries	Per cent of National Employment	Number of Workers
1. Core Copyright Industries	1.83%	19,288
2. Interdependent Copyright Industries	0.66%	6,943
3. Partial Copyright Industries	0.55%	5,822
4. Non-dedicated Support Industries	0.36%	3,749
Total	3.39%	35,801
Total Jordanian Workers	100.00%	1,055,847

Figure 4.12: Employment in Copyright Industries



Source: Department Of Statistics, Labour statistics, Analytical report 2005-2009.

It is to be noted that specific copyright industries, such as education and personal services, are gender-oriented. In education, the number of female workers was 58,640, close to the number of males. However, 40.9% of working females were engaged in education activities compared to 7.2% of male workers.

Table 4.13: Employment by gender

Employment by Gender				
Activity	Male		Female	
	Education	65,433	7.2%	58,640
Services, social and personal	51,840	5.7%	8,069	5.6%
Total in the economy	912,065	86.4%	143,782	13.6%

4.5 Production

The value of output in the core copyright industries amounted to JD 400.5 million and value of output in the interdependent copyright industries reached JD 52.3 million in 2006.

4.6 Growth in Value Added

Growth rate in the value added at market prices of the core industries, during the period 2006-2009, was 12%. Clearly, this growth rate is among the highest growth rates in all the sectors of the economy.

Table 4.14: Growth Rates in Value Added 2006-2009 (000 JD)

Industry	2006	2009	Growth (%)
Core Copyright	162,878	228,784	12

Source, Department of Statistics, *ibid.*

4.7 Productivity

Productivity, measured by value added per employee in the core copyright industries ranged between JD 4,000 in radio and television to JD 19,600 in the motion picture and video industries. Productivity in the software and database industries was relatively high at JD 16,400 followed by press and literature at JD 8,500 and music, theatrical and operas at JD 6,500, photography at JD 5,800 and advertising services at JD 4,100.

Productivity in the interdependent copyright industries was JD 10,300 for paper and JD 14,800 for blank recording material. Photographic and cinematographic activities recorded a value of JD 7,800 and computers registered JD 7,100. Musical instruments reached JD 6,000, while TV sets, videos, VCRs and CD-DVD apparatus recorded JD 7,500. Finally, productivity in photocopiers registered a value of JD 6,600.

In the partial copyright industries, productivity was highest for architecture and engineering at JD 13,600, followed by interior design at JD 10,300 and wall coverings and carpets at JD 11,900, household goods, china and glass at JD 7,200 and apparel, textiles and footwear at JD 6,700. In the lower range came jewellery and coins at JD 4,100, other crafts at JD 4,100 and furniture at JD 4,400.

In the non-dedicated support industries, productivity was relatively high in general transportation and communication at JD 40,000 and moderate for wholesale and retail at JD 9,000.

Table 4.15: Productivity in the Copyright Industries (JD)

	Value Added per Worker
1. Core Copyright Industries	8,445
Press and literature	9,639
Music, theatrical productions, operas	6,468
Motion picture and video	19,647
Radio and television	3,952
Photography	5,752
Software and databases	16,358
Visual and graphic arts	
Advertising services	4,137
Copyright collecting societies	
2. Interdependent Copyright Industries	7,479
Manufacture of TV sets, radios, VCRs, CD-DVD players	6,731
Photocopiers	6,552
Photographic and cinematographic instruments	7,778
Musical instruments	5,909
Computer and equipment	7,115
Blank recording material	14,750
Paper	10,335
3. Partial Copyright Industries	6,657
Apparel, textiles and footwear	4,132
Jewellery and coins	8,820
Furniture	4,444
Household goods, china and glass	7,167

Table 4.15: Productivity in the Copyright Industries (JD) (Continued)

Wall coverings and carpets	11,885
Other crafts	4,132
Toys and games	6,820
Architecture, engineering, surveying	13,565
Interior design	10,280
Museums	5,700
4. Non-dedicated Support Industries	15,334
General wholesale and retailing	8,967
General transportation, telephony and internet	40,036

Figure 4.13: Productivity in the Core Copyright Industries by Category (JD)

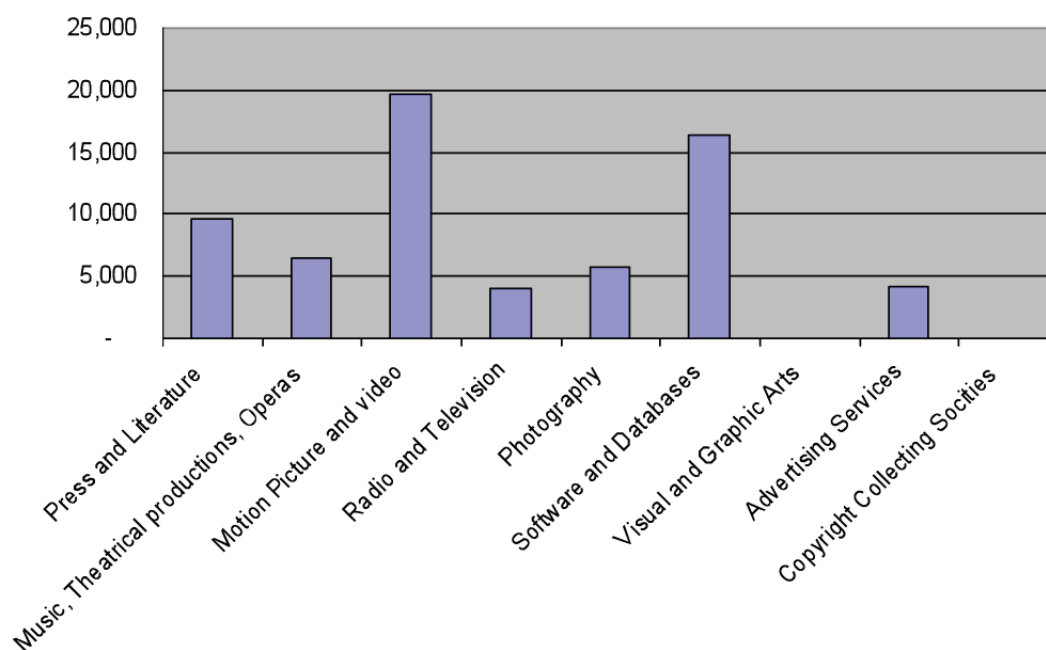


Figure 4.14: Productivity in the Interdependent Copyright Industries by Category (JD)

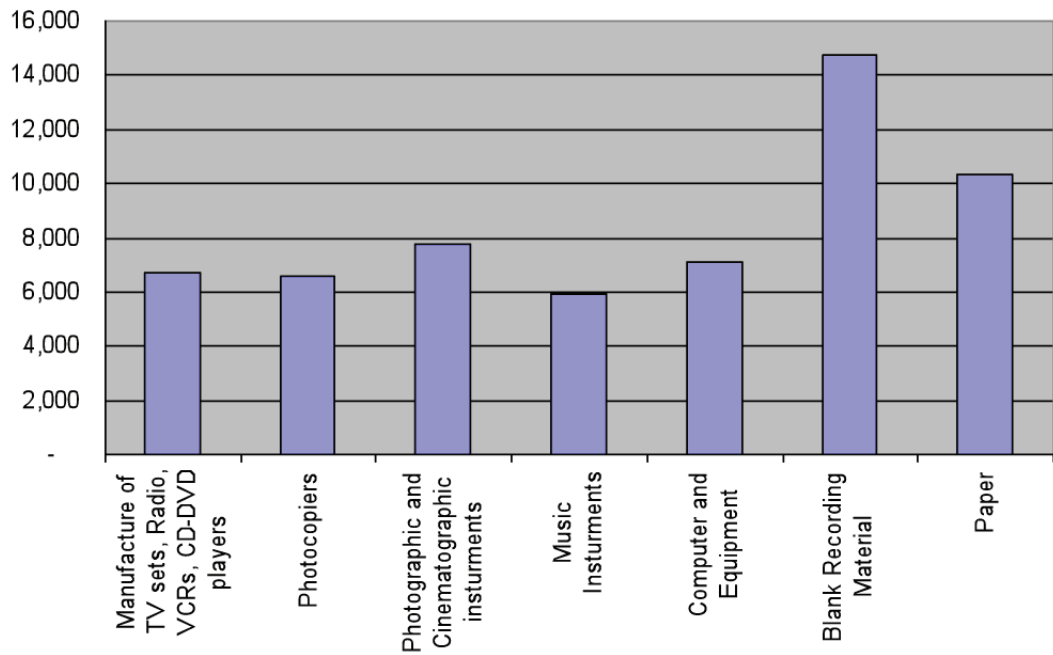


Figure 4.15: Productivity in the Partial Copyright Industries by Category (JD)

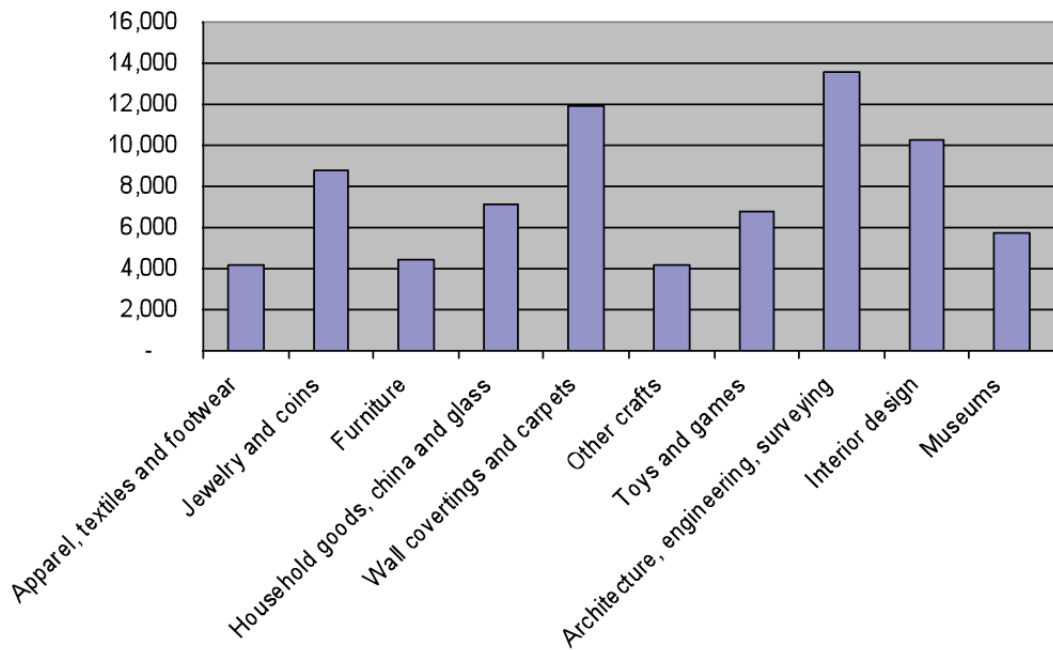
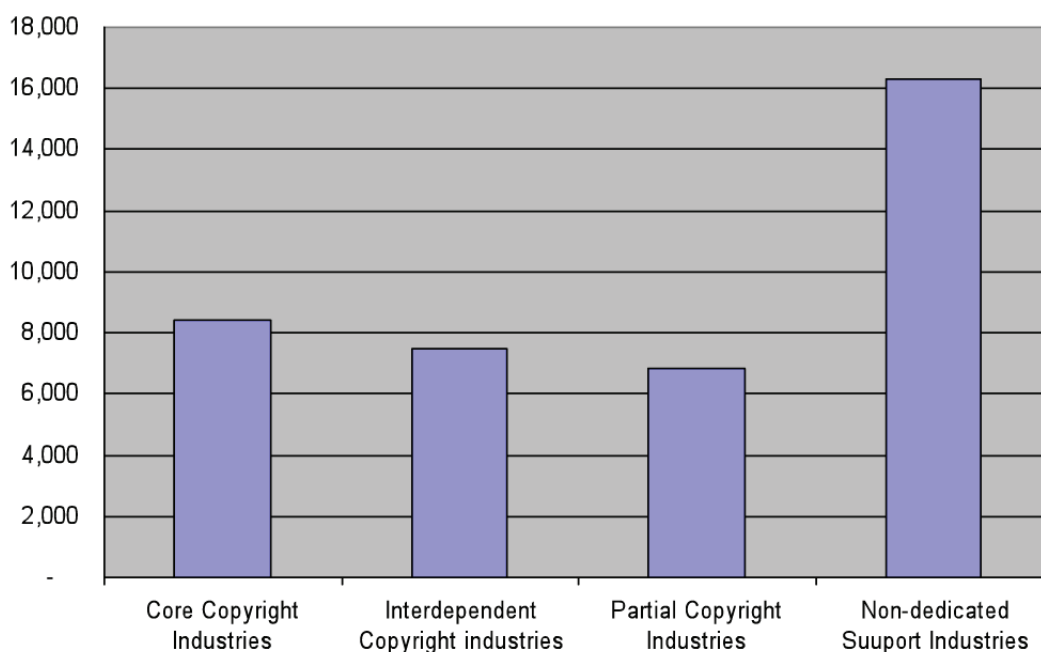




Figure 4.16: Productivity in the Copyright Industries by Category (JD)



Productivity, as defined in this study, depends to a large extent on the size of the establishment, the copyright factor that is related to the specific activities and the value of the output in the market. Another important factor is the nature of the establishment in terms of being a public or private entity, an ordinary or public shareholding company.

In this context, productivity is high in motion picture and video at JD 19,600 and software and databases at JD 16,400, because the copyright factor is high in those activities and the products under question are highly protected by the copyright law. Also, the value of output is high and the activities are undertaken by private establishments.

Productivity in the paper industry is high, because a substantial number of the establishments undertaking those activities are relatively medium-size or large.

Productivity in radio and television is low because the establishments carrying out those activities are public or public shareholding companies.

Productivity in music and theatrical production (JD 6,500) and advertising services (JD 4,100) is low because the establishments are mostly small-scale (fewer than 20 workers).

4.8 Trade

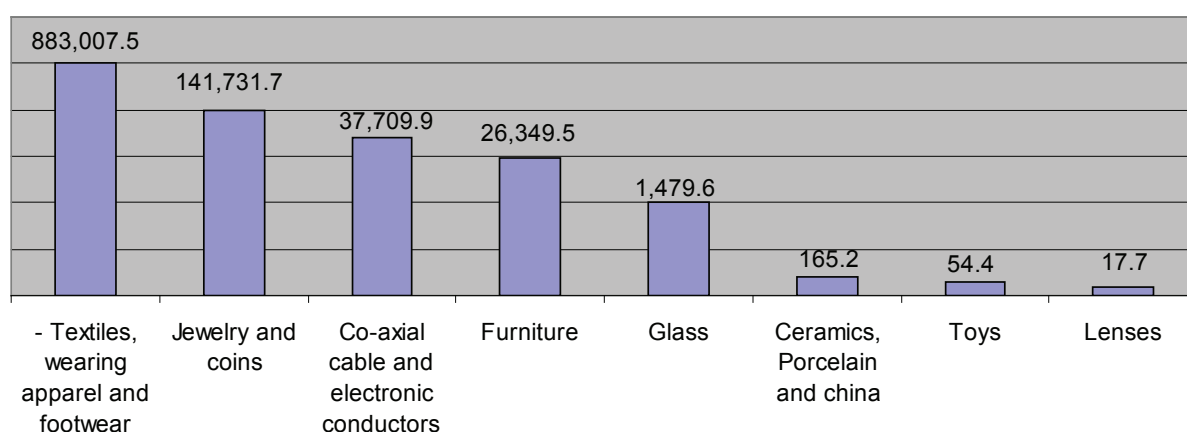
4.8.1 Exports

1. In 2006, exports of newspapers, journals and periodicals reached JD 888,000, exports of printed books, brochures and leaflets amounted to JD 6.2 million, and exports of paintings, drawings, and pastels were at JD 832,000. The exports of the core copyright items were around JD 7.88 million.
2. In 2006, exports of television receivers, aerials and parts reached JD 9.7 million. Exports of compact discs and magnetic tapes amounted to JD 4.4 million.
3. Exports of interdependent copyright items amounted to JD 14.1 million.
4. In 2006, exports of partial copyright items amounted to JD 1,090.5 million, distributed as follows:

Table 4.16: Exports of partial copyright items (please align left the numbers in the table)

Item	000 JD
– Textiles, wearing apparel and footwear	883,007.5
– Ceramics, porcelain and china	165.2
– Glass	1,479.6
– Jewellery and coins	141,731.7
– Co-axial cable and electronic conductors	37,709.9
– Lenses	17.7

Figure 4.17: Distribution of the Partial Copyright Items



– Furniture 26,349.5
– Toys 54.4

Source: Department of Statistics, External trade statistics, 2006.

4.8.2 Imports

1. In 2006, imports of printed books, brochures and leaflets amounted to JD 12,7 million. Imports of newspaper, journals and periodicals reached JD 4.6 million, and imports of paintings, drawings and pastels approached JD 314,7000.

Total imports of core copyright items reached JD 17.6 million.

2. In 2006, imports of jewellery, gold and beauty accessories amounted to JD 107.4million. Imports of electrical apparatus, microphones, radio cassettes, video recording, cartridges, magnetic tapes, disks, caesuras, aerials, receivers, transistors, circuits, fibre cables and lenses reached JD 543.4 million. Imports of parts and accessories for photography and projectors touched JD 4.1 million. Imports of musical instruments hit JD 4.4million.
3. Imports of textiles, wearing apparel and footwear amounted to JD 211.3 million. Imports of ceramics, porcelain and china amounted to JD 14.7 million. Imports of glass amounted to JD 35.4 million. Imports of furniture amounted to JD 69.2 million, and imports of toys amounted to JD 10.8 million.

4.8.3 Trade Balance

The balance of trade is defined as exports less imports. In the core copyright items there was a trade deficit of around JD 10 million as shown below:

Table 4.17: Trade deficit in core copyright items

Item	Exports	Imports	Balance
– Books, Brochure, Leaflets	6.2	12.7	- 6.5
– Newspapers, Journals, Periodicals	0.888	4.6	- 3.7
– Paintings, Drawings, Pastels	0.832	0.315	- 0.5
TOTAL	7.88	17.6	- 9.7

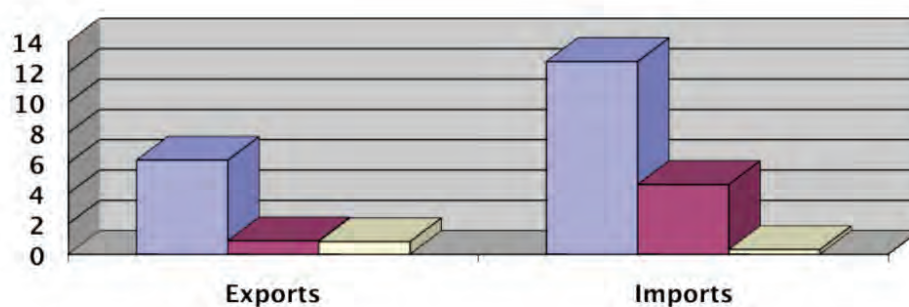
Source: Department of Statistics, External trade statistics, 2006.

The partial copyright items showed a trade deficit of around JD 641 million, as follows:

Table 4.18: Trade deficit in partial copyright items

Item	Exports	Imports	Net Exports
– Jewellery, Gold, etc ...	–	107.4	- 107.4
– Electrical, etc...	14.1	543.4	- 529.3
– Photography, etc ...	–	4.1	- 4.1
TOTAL	14.1	654.9	- 640.8

Figure 4.18: Trade Deficit of the Core Copyright Items



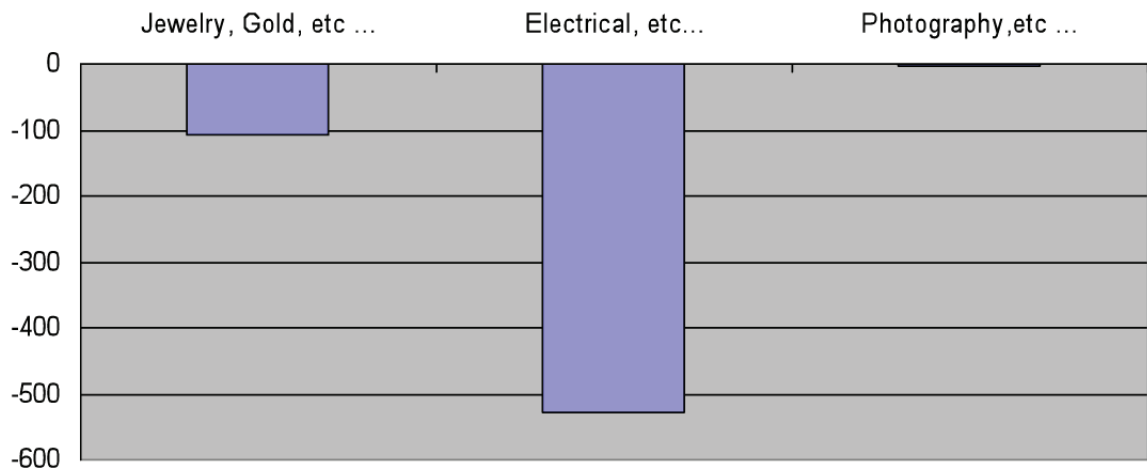
■ - Books, Brochure, Leaflets

■ - News papers, Journals, Periodicals

■ - Paintings, Drawings, Pastels

4.9 Multipliers

Figure 4.19: Partial Copyright Items Net Export



This section makes an effort to establish different multipliers, showing the indirect effects produced by the copyright-based industries and comparing them with the effects produced by other industries. For this purpose the input-output tables were utilised to identify the inputs of the copyright based industries into the other economic activities of the economy. The multiplier is then calculated through dividing the value of inputs contribution of the copyright industries by the value of the output of the selected economic activity. For example, publishing of newspapers, journals and periodicals (ISIC 2212) provides inputs to printing (ISIC 2221) and other economic activities as follows:

Table 4.19: Inputs of publishing into other activities

ISIC Code	Item Description	JD (000)
2221	Printing	140
5149	Wholesale of other intermediate products, waste and scrap	64
7010	Real-estate activities with owned or leased property	44
7129	Renting of other machinery and equipment	174
Total		422

Total inputs of 2212 into 2221, 5149, 7010 and 7129 sum up to JD 422,000 while outputs of 2221, 5149, 7010 and 7129 add up to JD 96,213,000 and by dividing the later by the former yields an amount of JD 228. This means that one JD worth of 2212 directly generates JD 228 worth of output in the related sectors or the economy. Repeating this process for all the CRI, as shown in Table 4.20, yields a multiplier of JD 30.

Analysis of the input-output tables revealed the following observations:

It was clear that most of the inputs of the copyright-based industries relate to each other. For example, publishing of newspapers, journals and periodicals provides most of its inputs to printing activities and vice versa. Also, printing activities relate substantially to publishing of books, brochures, newspapers, journals, periodicals, and other publications.

It was also evident that substantial inputs of all the copyright based industries, such as book publishing, newspaper printing, software publishing, advertising and photography, relate to general wholesale and retail of other intermediate products.

The activities that are related to motion picture projection provide substantial inputs to restaurants, bars and canteens.

The interaction of the copyright based industries with the rest of the economy was rather weak. There were few interactions with the industrial sector and entertainment activities such as those operated in theatres, operas and cultural venues.

Table 4.20 below shows that the activities of printing and professional organisations as well as manufacturing of related products have the highest multiplier effects on the economy. Next, with intermediate multiplier effects, come the publishing activities of software, newspapers, journals and periodicals. Few multiplier effects are generated by motion picture projections and advertising. The remaining activities have no multiplier effects of any significance.

In total, the inputs of the copyright-based industries into the economic activities as a whole add up to JD 53.3 million. The total output of the economic activities, excluding the copyright based industries' output, adds up to JD 17452.1 million. Hence, dividing the two figures gives a ratio of 327. In other words, it can be generally concluded that one JD worth of inputs results in JD 327 of output in the rest of the economy. However, this ratio is exaggerated, because it includes the direct and all the other indirect effects. It is more appropriate to include only the direct effects by considering the economic activities that directly take inputs from the copyright industries.

Table 4.20 shows the activities that directly take inputs from the copyright sector: the sum of their output adds up to JD 1593.4 million. Dividing this total by the sum of inputs yields a ratio of 30. In other words, one JD of input by the copyright sector generates JD 30 of output in the other sectors of the economy. In comparison, the corresponding calculations for agriculture and education are JD 646 and JD 93 respectively.

Table 4.20: Inputs of Copyright Based Industries Into Other Economic Activities and Output of Those Other Activities

ISIC Code	Description	Input JD(000)	Output JD(000)	Related Activity
2101	Manufacture of pulp, paper and paperboard	9525	56283	2102;9309
2211	Publishing of books, brochures and other publications	0	0	none
2212	Publishing of newspapers, journals and periodicals	422	96213	2221;5149;7010; 7129
2219	Other publishing	0	0	none
2221	Printing	19623	48605.5	2101;2102;2211; 2219;2222;5149
2222	Service activities related to printing	2467	4223	2029;2211
2429	Manufacture of other chemical products n.e.c.	6637	108004	2411
3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods	5022	35920	2930
7221	Software Publishing	1328		5149
7229	Other software consultancy and supply	168		5149
7430	Advertising	57	1119	5149;7422
7499	Other business activities n.e.c.	768	28909	5149;7010
7494	Photographic activities	217		5149
9112	Activities of professional organizations	6836	966135	5149;6420;7010
9211	Motion picture and video production and distribution	0	0	none
9212	Motion picture projection	90	247939	5520
9213	Radio and television activities	0	0	none
9214	Dramatic arts, music and other arts activities	0	0	none
9219	Other entertainment activities n.e.c.	3		5149
9249	Other recreational activities	150		5149;9309
	Total	53313	1593351	

Source: Department of Statistics, Input-output tables, 2006.

4.10 Financing

The financial sector in Jordan is relatively developed and access to funding is not difficult. Establishments and individuals alike have easy access to funding resources, which include private banks and specialised lending institutions such as the Employment and Development Fund. In general, lending institutions require a guarantor, including for micro loans, which limits the financing opportunities facing copyright activities. Those opportunities even diminish further in the case of any activity related to writing, composing, acting and fine arts. Those categories in particular rely on sponsoring by relatively large companies or institutions, which mainly cover part of the cost involved in undertaking the concerned activity.

In this context, a financial scheme targeting creative work in the copyright field is much needed. The scheme could be initiated under the umbrella and partnership of both the public and private sectors, with assistance from international partners and donor agencies.

5. International Comparisons

This chapter presents an international comparison of the contribution of CRI to GDP.

The contribution of CRI to GDP was highest in the USA and Australia, exceeding 12%, followed by Korea with more than 8%. The majority of the countries studied had a contribution of CRI to GDP ranging between 4-8%. Only in six countries, including Jordan, was CRI contribution to GDP less than 4%.

Employment absorption by CRI was the highest, exceeding 10%, in the Philippines and Korea, followed by Bhutan, Netherlands and the USA. The majority of the countries investigated absorbed between 4-8%, while seven countries, including Jordan, absorbed less than 4% of total employment.

Jordan comes at the bottom of the comparisons table in terms of percentage contributions to GDP and employment. The copyright-based industries' contribution to GDP amounts to 2.96%, while percentage contribution to employment is estimated at 3.4%. The reason why this contribution is low can be attributed to several factors, including: i) cultural factors judging activities related to fine arts, music and entertainment as inappropriate careers; ii) the industrial base being rather weak, hence activities in the manufacturing of copyright related items are almost inexistent; iii) copyright law enforcement activities are not strong enough to protect property rights and collective management societies are inexistent.

The table below shows detailed percentage contributions to GDP and employment by sector component.

Table 5.1: Contribution of copyright industries to Jordan's economy

VALUE ADDED	
1. Core Copyright Industries	1.53%
2. Interdependent Copyright industries	0.49%
3. Partial Copyright Industries	0.37%
4. Non-dedicated Support Industries	0.57%
Total	2.96%
EMPLOYMENT	
1. Core Copyright Industries	1.83%
2. Interdependent Copyright industries	0.66%
3. Partial Copyright Industries	0.55%
4. Non-dedicated Support Industries	0.36%
Total	3.39%

Figure 5.1: Copyright Contribution to the Economy, Worldwide

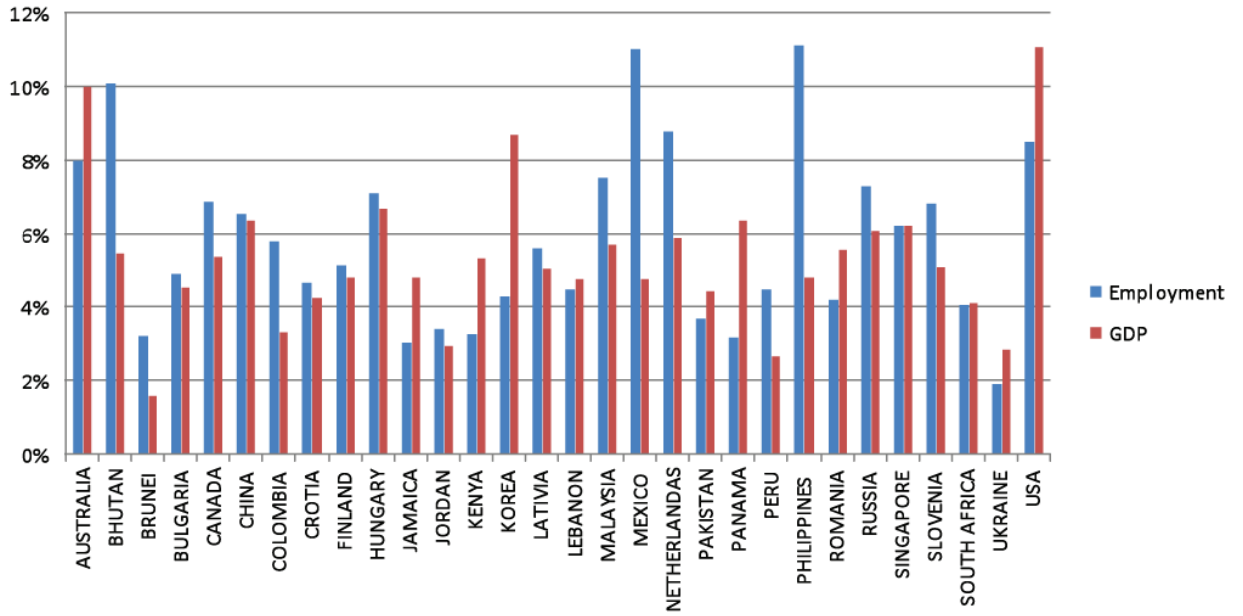
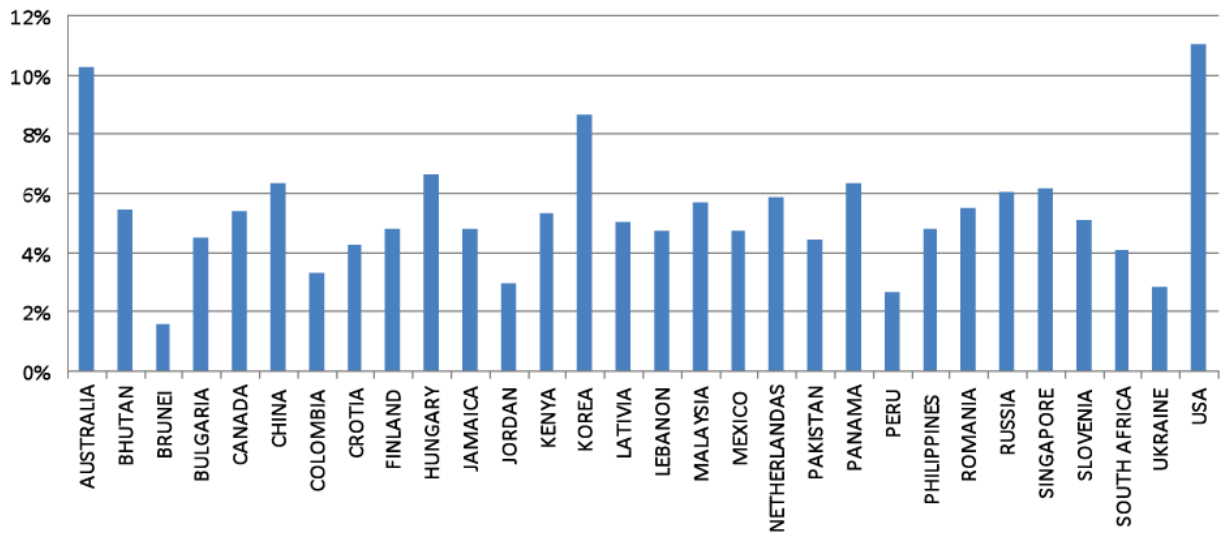
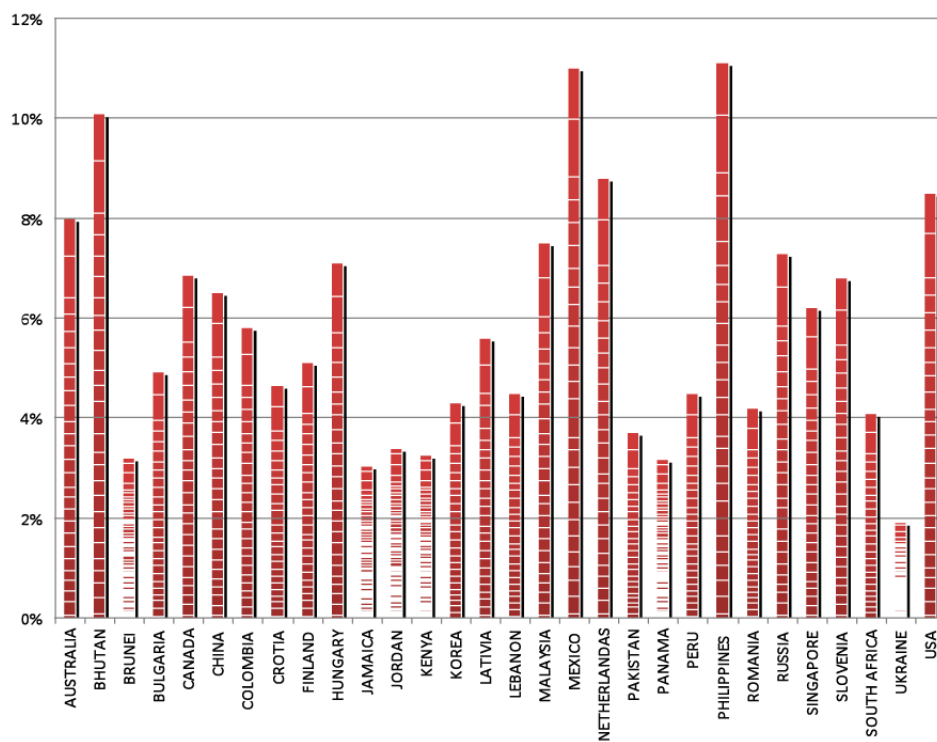


Figure 5.2: Copyright Share in GDP, Worldwide



Source: WIPO publications.

Figure 5.3: Copyright Share in Employment, Worldwide



Source: WIPO publications.

6. Conclusions and Recommendations

6.1 Towards the Development of the Copyright-Based Industries in Jordan

It is imperative that cultural-based industries represent the contribution of the groups and nations to the wider global economy; their development depends heavily on the specificity and uniqueness of the culture. Jordan joined The World Trade Organisation (WTO) hoping to take advantage of the opportunities provided by the free exchange of goods and services and relying on the country's ability to compete and make headway in spheres where talent and creativity were required.

This notion was popular among policy-makers and individuals alike; it was supported by the fact that Jordan is a country which depends heavily on its human resources. The country prided itself on being the first in the region to adopt the knowledge-based economy approach and on having created more universities than any other Arab state.

Despite these hopes and the associated rhetoric, Jordan is not reaping the fruits of its knowledge-based economy, since that economy has been unable to create enough jobs to absorb the tens of thousands of graduates from its colleges and universities. This is due partly to the contradictions between policies in various sectors and sometimes within the same sector. Furthermore, very little has been accomplished in terms of taking full advantage of the new opportunities.

Today, it is obvious that the Jordanian economy is not in its best shape: it has debt of around 20 billion USD, a budget deficit of 3 billion USD and an unemployment rate reaching 11.6% according to the lowest estimate.

With all these facts in mind and with the continual search for solutions to the economy's chronic crisis, unfortunately the development of the cultural industries in general, and the copyright-based industries in particular, is not on the agenda of the policy-makers. In fact, the total spending of the Jordanian government on culture and cultural activities is less than 1% of the government budget. When it comes to the copyright-based industries, the deeds do not match the rhetoric. A recent artists' strike is only one example of the stakeholders' dissatisfaction with the government's lack of support and interest in a sector whose contribution to GDP (3%) exceeds mining and is close to that of agriculture. The sector is composed of the following economic activities:

Press and literature consisted of half of the total value added of the Core Copyright industries, followed by the software and database industries with 20.5%.

Paper activities contributed 11.3% of the total value added of the interdependent copyright industries; the contribution of blank recording material was 7.5%. Most value added contribution was accounted for by trade activities in equipment related to copyright, such as TV sets, radios, CD-DVD players, photocopiers, photography, cinematography and music.

Architecture, engineering and surveying contributed the highest value added to the economy among partial copyright industries (34.3%), followed by apparel, textiles and footwear (30.5%), and interior design (15.6%).

The core copyright industries employed 19,228 persons or 1.83% of total employment, while interdependent copyright industries' employment was 6,943 persons or 0.66% only.

In the core copyright industries, press and literature absorbed the majority of workers (44.5%), followed by radio and television (21.4%), advertising (11.4%), and software and data base (10.6%).

In the interdependent copyright industries, paper employed 8.2%, while blank recording material absorbed 3.8%. The majority of workers were engaged in trade activities related to copyright equipment and instruments.

In the partial copyright industries, around half of the labour force were engaged in apparel, textiles and footwear compared to 17% in engineering and architecture, 11.4% in furniture and 10.1% in interior design.

Productivity in the core copyright industries ranged between JD 4,000 in radio and television to JD 19,600 in motion picture and video. In the interdependent copyright industries the corresponding figures were JD 10,300 for paper and JD 14,800 for blank recording material. In the partial copyright industries, productivity was highest in architecture and engineering with JD 13,600, followed by wall coverings and carpets with JD 11,900 and interior design with JD 10,300.

Exports and imports of core copyright items amounted to JD 7.88 million and JD 17.6 million respectively. Also, exports and imports of interdependent copyright items reached JD 14.1 million and JD 659 million respectively. As a result, the trade in copyright items revealed a huge deficit.

It is estimated that copyright and related industries have a multiplier effect of JD 30: one JD worth of output in the copyright and related industries generates JD 30 of output in the economy.

In the national context, the contribution of the copyright-based industries to the economy is not significant. The sector as a whole, excluding ICT and advertising, is rather weak and has suffered from substantial setbacks.

Press and literature, although advanced in terms of publishing and writing, suffer from severe competition from Cairo and Beirut.

Activities in music, theatrical production and opera are underdeveloped and most festivals rely on foreign performers. However, this sector is gaining momentum especially in the areas of education, recording and production.

Radio and television have witnessed progressive developments in recent years, with more than 30 radio and 40 television channels.

Visual and graphic arts used to be unnoticed, until very recently this sector started to gain some popularity through annual exhibitions, conferences, national museum art displays and awareness activities.

Photography activities are mostly engaged in covering social events such as weddings, graduations, birthdays, conferences and national celebrations.

The ICT sector in Jordan is highly developed and very popular, due to its potential for income generation and absorbing more of the labour force. In 2006, ICT revenues reached US\$ 2 billion and absorbed 1.23% of the labour force.

Advertising services are performed by more than 1000 agencies and generate revenue of more than JD 200 million annually.

Motion picture and video were very popular in the past century and many Jordanians pinned a lot of hope on this sector to generate substantial income and absorb a significant amount of employment. However, despite several distinguished drama productions, the sector suffered from substantial setbacks following the political upheavals in the region. In 2006, there were 24 audiovisual production companies employing around 5000 people.

Based on the findings of the study, we propose the following recommendations:

1. **Data and Information:** the field of cultural industries in general, and the copyright-based industries in particular, is in need of a broad database on the nature, size, compositions, distribution, revenues, needs, challenges, aspirations, development, culture and training of all actors in the field. In addition, research must be initiated to assess and evaluate the policies and programmes in the field on a regular basis. The proposed database is the first step in a series of measures necessary to establish a national copyright strategy to develop the sector.
2. **Policies:** the government of Jordan needs to have a comprehensive policy related to copyright based industries. Most measures undertaken by the various stakeholders are based on official reactions to existing problems, rather than a well articulated policy. The policy must take into consideration both the reality and the potential of the copyright-based industries, and should be formulated with the participation of all stakeholders, including the creators and producers of ideas and intellectual discoveries.

3. **Legislation:** the legal framework is a necessary condition for the creation of an environment conducive to the growth of creative activity, and to protect the rights of the creators. Public awareness of the existing laws is a crucial element to the success of its enforcement. Unfortunately, despite the existence of the laws since 1910 and the continuous amendments of these laws, enforcement of these laws and response to the law-breaking incidents are still subject to the discretion of many law enforcement agents. The discrepancy between law-making and law enforcement justifies the need for rigorous training and capacity-building programmes targeting the agents responsible for enforcing the copyright laws at all levels. Furthermore, this cannot be achieved without raising public awareness.
4. **Training:** both the government and the private sector are involved in the higher education system. Almost two-thirds of universities are established and managed by the private sector in Jordan; however, these institutions focus on the standard programmes provided by the various departments and very little attention is given to specialised training leading to creativity in research and practice. This condition has deprived Jordanian university graduates of the chance to compete on a regional and global level, as they hope to do. In the last 10 years, none of the 29 Jordanian universities has appeared in the list of the top 500 universities in the world. Neither the government nor the private sector are paying attention to the talent development schemes that are necessary in order to compete in a world that thrives on competition.
5. **Funding:** many copyright-based industries lack the necessary funds to grow. Lending institutions find it difficult to finance non-tangible products; the nature of copyright-based industries requires the existence of financing mechanisms sensitive to the nature of creative projects and their financial and cultural value. Therefore, governments ought to establish a funding agency specialising in copyright-based industries and should encourage the private sector to take part in supporting this very important provision.
6. **Incentives:** unlike other industries, creative art and copyright-based industries have great potential, but this potential cannot be fully realised without receiving the necessary support and protection. Many of the magnificent companies and corporations on the global scene today were the products of the ideas and thoughts of their founding fathers (for example, the Ford Corporation, Microsoft and facebook). Such ideas would have not seen the light if had not found a nurturing and supporting environment. Jordanian creators, authors, musicians, actors and artists are in urgent need of incentives in the form of recognition, protection, financial and moral support.
7. **Institutional Development:** the study realised that an important institution, namely a collective management association, did not exist. The existing associations for writers, publishing, journalists and artists do not function in a manner that can articulate an impact on the development of copyright-based economic activities. It is imperative in this regard to establish a collective management association and provide a mechanism to enhance the role of the existing associations in the development of the sector.
8. **Partial copyright industries:** the study found that the partial copyright industries are almost non-existent and, where available, they are very weak. Support and encouragement for establishing those industries will enhance the growth of copyright economic activities and increase their contribution to GDP and employment.
9. **Statistics and Data:** many copyright economic activities are carried out 'underground' and are not captured in the official statistics. Since those activities are carried out individually and not within a formal institutional framework, the study concluded that the contribution of the copyright industries is highly under-estimated. It is recommended here that the statistical framework should be developed to capture those activities so that they can be officially registered. In addition, a monitoring system should be developed which can identify and track improvements to the sector of copyright as a whole.

Annex I: Description of ISIC Codes

ISIC Rev.3.1.code and Description

Class: 9214 – Dramatic arts, music and other arts activities
Class: 7499 – Other business activities n.e.c. (for translation and interpretation)
Class: 2212 – Publishing of newspapers, journals and periodicals
Class: 9220 – News agency activities
Class: 2212 – Publishing of newspapers, journals and periodicals
Class: 2211 – Publishing of books, brochures and other publications
Class: 2219 – Other publishing
Class: 2221 – Printing
Class: 2222 – Service activities related to printing
Class: 5139 – Wholesale of other household goods
Class: 5239 – Other retail sale in specialized stores
Class: 9231 – Library and archives activities
Class: 9214 – Dramatic arts, music and other arts activities
Class: 9219 – Other entertainment activities n.e.c.
Class: 9249 – Other recreational activities
Class: 2213 – Publishing of music
Class: 2230 – Reproduction of recorded media
Class: 5233 – Retail sale of household appliances, articles and equipment
Class: 7130 – Renting of personal and household goods n.e.c.
Class: 5139 – Wholesale of other household goods (incl. wholesale of recorded video tapes)
Class: 9214 – Dramatic arts, music and other arts activities
Class: 9214 – Dramatic arts, music and other arts activities
Class: 9214 – Dramatic arts, music and other arts activities
Class: 9211 – Motion picture and video production and distribution
Class: 9212 – Motion picture projection
Class: 7130 – Renting of personal and household goods n.e.c.
Class: 9211 – Motion picture and video production and distribution
Class: 2230 – Reproduction of recorded media
Class: 9213 – Radio and television activities
Class: 9213 – Radio and television activities
Class: 7499 – Other business activities n.e.c.
Class: 6420 – Telecommunications
Class: 6420 – Telecommunications
Class: 9213 – Radio and television activities
Class: 7494 – Photographic activities
Class: 2222 – Service activities related to printing
Class: 7499 – Other business activities n.e.c.
Class: 9231 – Library and archives activities
Class: 7221 – Software publishing
Class: 7229 – Other software consultancy and supply
Class: 5151 – Wholesale of computers, computer peripheral equipment and software
Class: 7240 – Database activities and on-line distribution of electronic content
Class: 7230 – Data processing

Activities by authors, music composers, and other independent artists n.e.c.

Class: 9214 – Dramatic arts, music and other arts activities
Class: 7494 – Photographic activities
Class: 9214 – Dramatic arts, music and other arts activities
Class: 7499 – Other business activities n.e.c.
Class: 7430 – Advertising
Class: 9112 – Activities of professional organizations

Class: 3230 – Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods

Class: 5139 – Wholesale of other household goods

Class: 5233 – Retail sale of household appliances, articles and equipment

Class: 7130 – Renting of personal and household goods n.e.c.

Class: 3000 – Manufacture of office, accounting and computing machinery

Class: 5151 – Wholesale of computers, computer peripheral equipment and software

Class: 7123 – Renting of office machinery and equipment(including computers)

Class: 3692 – Manufacture of musical instruments

Class: 5139 – Wholesale of other household goods

Class: 5233 – Retail sale of household appliances, articles and equipment

Class: 3320 – Manufacture of optical instruments and photographic equipment

Class: 5139 – Wholesale of other household goods

Class: 5239 – Other retail sale in specialized stores

Class: 7129 – Renting of other machinery and equipment n.e.c.

Class: 3000 – Manufacture of office, accounting and computing machinery

Class: 5159 – Wholesale of other machinery, equipment and supplies

Class: 2429 – Manufacture of other chemical products n.e.c.

Class: 5152 – Wholesale of electronic and telecommunications parts and equipment

Class: 5233 – Retail sale of household appliances, articles and equipment

Class: 2101 – Manufacture of pulp, paper and paperboard

Class: 5149 – Wholesale of other intermediate products, waste and scrap

Class: 5239 – Other retail sale in specialized stores

Class: 1810 – Manufacture of wearing apparel

Class: 1721 – Manufacture of made-up textile articles

Class: 1920 – Manufacture of footwear

Class: 5131 – Wholesale of textiles, clothing and footwear

Class: 5232 – Retail sale of textiles, clothing, footwear and leather goods

Class: 3691 – Manufacture of jewellery and related articles

Class: 5139 – Wholesale of other household goods

Class: 5239 – Other retail sale in specialized stores

Class: 9199 – Activities of other membership organizations n.e.c.

Class: 5239 – Other retail sale in specialized stores

Class: 3610 – Manufacture of furniture

Class: 5139 – Wholesale of other household goods

Class: 7130 – Renting of personal and household goods n.e.c.

Class: 2610 – Manufacture of glass and glass products

Class: 173 – Manufacture of knitted and crocheted fabrics and articles

Class: 2029 – Manufacture of other products of wood

Class: 2899 – Manufacture of other fabricated metal products n.e.c.

Class: 5139 – Wholesale of other household goods

Class: 5233 – Retail sale of household appliances, articles and equipment

Class: 1722 – Manufacture of carpets and rugs

Class: 2109 – Manufacture of other articles of paper and paperboard

Class: 5239 – Other retail sale in specialized stores

Class: 3694 – Manufacture of games and toys

Class: 5139 – Wholesale of other household goods

Class: 5239 – Other retail sale in specialized stores

Class: 7421 – Architectural and engineering activities and related technical consultancy

Class: 7499 – Other business activities n.e.c.

Class: 9232 – Museums activities and preservation of historical sites and buildings

Division: 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

Division: 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...

Division: 60 – Land transport; transport via pipelines

This Division is divided into the following Groups:

- Group 601 – Transport via railways
- Group 602 – Other land transport
- Division: 61 – Water transport
- Division: 62 – Air transport
- Class 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 n.e.c.
- 6309 – Activities of other transport agencies

Group: 641 – Post and courier activities

This Group is divided into the following Classes:

- 6411 – National post activities
- 6412 – Courier activities other than national post activities
- Class: 6420 – Telecommunications
- Class: 7240 – Database activities and on-line distribution of Electronic content

Annex 2: Employment, Value Added and Production in 2006-2009

(Values in Thousand JDs)

ISIC	Number of employees	Existing Production	Value Added	Existing Production	Value Added
	2006	2006	2006	2009	2009
1721	902	8,923	3,973	11,268	4,765
1722	607	33,830	12,983	31,634	15,471
1730	731	6,179	2,685	8,457	3,441
1810	43,723	325,712	175,191	530,251	298,930
1920	501	19,550	7,282	23,364	9,661
2029	209	4,233	2,244	7,441	2,769
2101	568	29,293	8,780	33,512	8,298
2109	1,737	49,099	14,875	112,549	42,612
2212	2,638	87,629	49,935	102,787	61,279
2221	3,217	53,841	18,903	90,393	33,311
2222	109	2,579	1,652	3,622	1,429
2429	264	13,455	3,894	18,803	5,733
2610	672	11,495	4,816	14,346	6,285
2899	2,063	137,734	53,195	149,060	54,521
3130	1,015	210,930	45,534	214,496	40,649
3311	909	16,519	6,563	22,081	12,935
3610	10,456	110,672	46,465	171,108	72,859
3691	649	13,088	5,724	39,550	7,623
3699	377	16,174	4,057	13,360	4,581
9214	25	394	281	225	162
7499	2,704	20,595	13,620	25,401	17,726
9219	675	7,931	4,366	9,434	5,132
7130	1,293	4,838	3,301	8,984	5,609
9211	391	12,333	8,349	17,603	12,963
9212	141	4,884	2,103	4,266	2,281
9213	1,414	10,558	2,655	14,782	2,272
7494	1,029	8,595	4,894	9,726	5,709
7221	1,152	31,884	26,775	44,748	34,719
7229	980	9,477	6,628	22,948	15,170
7430	2,199	18,282	9,097	29,141	16,705
9112	697	8,485	5,102	19,633	8,337
7129	65	360	209	489	279
5139	3,008	146,244	114,298	210,258	157,681
5239	11,008	82,349	56,137	79,901	50,788
5233	8,680	74,919	54,834	95,199	61,412
5151	213	39,404	33,395	53,118	44,980

ISIC	Number of employees	Existing Production	Value Added	Existing Production	Value Added
	2006	2006	2006	2009	2009
5159	1,823	59,365	48,574	77,491	59,208
5149	1,284	21,282	16,913	26,522	19,814
5152	174	71,112	65,239	54,238	39,395
5131	116	23,349	17,248	35,804	28,626
5232	14,003	79,602	53,858	121,116	78,073
51	15,602	708,530	560,111	878,232	670,164
52	98,918	650,409	466,733	847,833	571,487

ISIC	Number of employees	Existing Production	Value Added	Existing Production	Value Added
	2006	2009	2009	2006	2006
1721	902	11268	4765	8923	3973
1722	607	31634	15471	33830	12983
1730	731	8457	3441	6179	2685
1810	43,723	530251	298930	325712	175191
1920	501	23364	9661	19550	7282
2029	209	7441	2769	4233	2244
2101	568	33512	8298	29293	8780
2109	1737	112549	42612	49099	14875
2212	2638	102787	61279	87629	49935
2221	3217	90393	33311	53841	18903
2222	109	3622	1429	2579	1652
2429	264	18803	5733	13455	3894
2610	672	14346	6285	11495	4816
2899	2063	149060	54521	137734	53195
3130	1015	214496	40649	210930	45534
3311	909	22081	12935	16519	6563
3610	10456	171108	72859	110672	46465
3691	649	39550	7623	13088	5724
3699	377	13360	4581	16174	4057
9214	25	225	162	394	281
7499	2704	25401	17726	20595	13620
9219	675	9434	5132	7931	4366
7130	1293	8984	5609	4838	3301
9211	391	17603	12963	12333	8349
9212	141	4266	2281	4884	2103
9213	1414	14782	2272	10558	2655
7494	1029	9726	5709	8595	4894
7221	1152	44748	34719	31884	26775
7229	980	22948	15170	9477	6628
7430	2199	29141	16705	18282	9097
9112	697	19633	8337	8485	5102
7129	65	489	279	360	209
5139	3008	210258	157681	146244	114298
5239	11008	79901	50788	82349	56137
5233	8680	95199	61412	74919	54834
5151	213	53118	44980	39404	33395
5159	1823	77491	59208	59365	48574
5149	1284	26522	19814	21282	16913
5152	174	54238	39395	71112	65239
5131	116	35804	28626	23349	17248
5232	14003	121116	78073	79602	53858
51	15602	878232	670164	708530	560111
52	98918	847833	571487	650409	466733

Annex 3: Contribution to GDP

COUNTRY	% CONTRIBUTION OF COPYRIGHT INDUSTRIES TO GDP					
	YEAR OF PUBLICATION	Total SHARE	CORE	INTERDEPENDENT	PARTIAL	NON-DEDICATED
AUSTRALIA	2009	10.30	7.30	2.00	0.40	0.60
BHUTAN	2011	5.46	1.90	0.60	2.20	0.76
BRUNEI	2011	1.58	0.70	0.10	0.70	0.08
BULGARIA	2011	4.54	2.74	1.08	0.29	0.43
CANADA	2004	5.38	3.99	0.90	0.11	0.38
CHINA	2009	6.37	3.06	1.92	0.48	0.91
COLOMBIA	2008	3.30	1.90	0.80	0.30	0.30
CROATIA	2007	4.27	2.99	0.88	0.32	0.08
FINLAND	2010	4.83	3.70	0.47	0.20	0.46
HUNGARY	2010	6.66	3.96	1.24	0.45	1.01
JAMAICA	2007	4.81	1.70	0.74	0.47	1.90
JORDAN	2006	2.96	1.53	0.49	0.37	0.57
KENYA	2009	5.32	2.30	2.17	0.41	0.44
KOREA	2005	8.67	4.03	2.79	0.36	1.49
LATVIA	2004	5.05	2.90	1.10	0.28	0.77
LEBANON	2007	4.75	2.53	0.71	0.62	0.89
MALAYSIA	2008	5.70	2.90	2.10	0.60	0.10
MEXICO	2006	4.77	1.55	1.69	0.85	0.68
NETHERLANDS	2009	5.90	4.00	0.40	0.90	0.60
PAKISTAN	2010	4.45	1.37	0.11	0.98	1.99
PANAMA	2009	6.35	5.40	0.06	0.05	0.84
PERU	2009	2.67	1.23	0.28	0.02	1.14
PHILIPPINES	2006	4.82	3.53	0.96	0.04	0.29
ROMANIA	2008	5.55	3.55	1.08	0.53	0.39
RUSSIA	2007	6.06	2.39	0.76	0.27	2.64
SINGAPORE	2007	6.19	3.46	1.56	0.09	1.08
SLOVENIA	2010	5.10	3.30	0.60	0.50	0.70
SOUTH AFRICA	2011	4.11	2.05	0.56	0.21	1.29
UKRAINE	2008	2.85	1.54	0.68	0.10	0.53
USA	2009	11.05	6.44	2.13	0.40	2.08

Annex 4: Contribution to Employment

COUNTRY	% CONTRIBUTION OF COPYRIGHT INDUSTRIES TO EMPLOYMENT					
	YEAR OF PUBLICATION	Total SHARE	CORE	INTERDEPENDENT	PARTIAL	NON-DEDICATED
AUSTRALIA	2009	8.00	4.97	1.81	0.57	0.65
BHUTAN	2011	10.09	1.03	0.29	7.16	1.61
BRUNEI	2011	3.20	1.50	0.40	1.10	0.20
BULGARIA	2011	4.92	2.78	1.34	0.31	0.49
CANADA	2004	6.87	4.00	0.91	0.16	0.33
CHINA	2009	6.52	3.14	1.90	0.85	0.63
COLOMBIA	2008	5.80	1.70	0.70	1.90	1.50
CROATIA	2007	4.65	3.22	0.93	0.41	0.08
FINLAND	2010	5.12	4.06	0.43	0.25	0.38
HUNGARY	2010	7.10	4.15	1.25	0.61	1.07
JAMAICA	2007	3.03	1.79	0.31	0.23	0.68
JORDAN	2006	3.39	1.83	0.66	0.55	0.36
KENYA	2009	3.26	1.20	0.75	1.04	0.27
KOREA	2005	4.31	2.15	1.06	0.31	0.79
LATVIA	2004	5.59	3.70	0.07	0.44	0.75
LEBANON	2007	4.49	2.11	0.73	0.70	0.95
MALAYSIA	2008	7.50	4.70	1.60	0.90	0.20
MEXICO	2006	11.01	3.41	3.65	2.53	1.41
NETHERLANDS	2009	8.80	6.20	0.60	1.10	1.00
PAKISTAN	2010	3.71	0.70	0.04	1.37	1.60
PANAMA	2009	3.17	1.52	1.20	0.31	0.13
PERU	2009	4.50	2.09	0.14	0.07	2.20
PHILIPPINES	2006	11.10	8.81	1.40	0.20	0.60
ROMANIA	2008	4.19	2.36	0.58	0.82	0.43
RUSSIA	2007	7.30	4.29	0.75	0.56	1.69
SINGAPORE	2007	6.21	4.04	1.15	0.20	0.82
SLOVENIA	2010	6.80	4.60	0.80	0.70	0.07
SOUTH AFRICA	2011	4.08	2.31	0.51	0.23	1.03
UKRAINE	2008	1.90	1.16	0.46	0.08	0.20
USA	2009	8.51	4.05	2.17	0.26	2.03

Annex 5: Exports of Copyright Items

HS.CODE	COMMODITY EXPORTS 2006	JDs
490110000	Printed books, brochures, leaflets and similar printed matter, in single sheets, whether or not folded.	551,288
490199000	Other printed books and similar printed matter, whether or not in single sheets, other than those heading in no – 49.01	5,607,308
4901	Sum	6,158,596
490290000	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material other than those appearing at least four times a week.	552,411
490700900	Unused postage, revenue or similar stamps of current or new issue in the country to which they are destined; stamp-impressed paper; banknotes, stock, share or bond certificates and similar documents of title	29,661
490900000	Printed or illustrated postcards, printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes.	2,528
491000000	Calendars of any kind, printed, including calendar blocks.	60,200
491110900	Trade advertising material, commercial catalogues and the like other than the advertising materials related to tourism in Jordan	88,717
491199900	Other printed matter, other than those falling within heading no 49.11	799,338
4911	Sum	888,055
610-640	Textiles, wearing apparel and footwear	883,007,500
691	Ceramics, porcelain and china	165,189
700-702	Glass	1,479,602
710812000	Non – monetary gold in unwrought forms.	5,910,260
711291000	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals.	280,738
HS.CODE	Commodity exports 2006	JDs
711319100	Articles of jewellery and parts, of gold	135,156,240
711719000	Other articles of imitation jewellery, of base metal, whether or not plated with precious metal	384,456
710-711	Sum	141,731,694
852311000	Other unrecorded magnetic tapes, of a width not exceeding (4) mm, for sound recording or similar recording of other phenomena, other than those heading no – 85.23.11	29,689
852320000	Magnetized discs, unrecorded, ready for recording sounds and other phenomena.	17,319
8523	Sum	47,008
852431000	Compact disks, recorded, for reproducing phenomena except for the sound or pictures.	4,298,855
852439000	Other discs for laser reading systems, for reproducing image only, recorded.	27,557
852453000	Other recorded magnetized tapes for recording sound and other phenomena, of a width exceeding (6.5) Mm.	10,006

HS.CODE	COMMODITY EXPORTS 2006	JDs
852499000	Other disks and holders for recording sound or other phenomena, recorded, not mentioned or found elsewhere.	21,316
8524	Sum	4,357,734
852812900	Television receivers whether or not incorporating radio-broadcast receivers or sound or video recording apparatus, colour-number	9,708,822
852910100	Aerials and aerial reflectors of all kinds; parts suitable for use therewith, for satellite reception or transmission	12,840
852990100	Parts suitable for use with the transmission apparatus for radio-broadcasting or television	2,021
852990900	Parts suitable for use solely or principally with the apparatus of headings no.85.25 To 85.28 Other than those falling within heading no.85.29	14,900
8529	Sum	9,738,583
854270000	Electronic microassemblies.	210,686
854411000	Insulated electrical winding wire of copper.	2,998,183
854419000	Other insulated electrical winding wire, other than of copper.	3,861,758
854420000	Co-axial cable and other co-axial electric conductors	30,320,570
854430000	Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	50,789
854441900	Other insulated electric conductors, for a voltage not exceeding (80) v, fitted with connectors, and not of a kind used for telecommunication	404,512
854451900	Other insulated electric conductors, for a voltage exceeding (80) v, but not exceeding (1000) v, fitted with connectors, other than of a kind for telecommunications.	74,071
8544	Sum	37,709,883
900130000	Contact lenses of any material.	3,603
900140000	Spectacle lenses of glass	14,060
9001	Sum	17,663
901060000	Projector screens.	60,660
940	Furniture	26,349,500
950	Toys	54,381
970110000	Paintings, drawings and pastels, executed entirely by hand other than hand-painted or hand-decorated manufactured articles.	21,749
970190000	Collages and similar decorative plaques, other than hand-painted or hand-decorated manufactured articles.	810,198
9701	Sum	831,947
	TOTAL	1,314,934,644

Annex 6: Imports of copyright items in 2006

HS.CODE	COMMODITY IMPORTS	JDs
490110000	Printed books, brochures, leaflets and similar printed matter, in single sheets, whether or not folded.	1,934,435
490199000	Other printed books and similar printed matter, whether or not in single sheets, other than those heading in no – 49.01	10,728,466
4901	Sum	12,662,901
490290000	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material other than those appearing at least four times a week.	161,017
490300000	Children's picture, drawing, or colouring books.	230,677
490400000	Music, printed or in manuscript, whether or not bound or illustrated.	500
490599000	Maps and hydrographic or similar charts of all kinds including atlases, wall maps and topographical plans, printed, other than those inbooks form	3,685
490600000	Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand- written texts, photographic reproductions on sensitised paper and carbon copies of the foregoin.	150
490700900	Unused postage, revenue or similar stamps of current or new issue in the country to which they are destined; stamp-impressed paper; banknotes, stock, share or bond certificates and similar documents of title	77,546
490900000	Printed or illustrated postcards, printed cards bearing personal greetings, massages or announcements, whether or not illustrated, with or without envelopes.	142,560
491000000	Calendars of any kind, printed, including calendar blocks.	570,570
491199900	Other printed matter, other than those falling within heading no 49.11	3,104,337
4911	Sum	4,574,564
610-640	Textiles, wearing apparel and footwear	211,277,225
691	Ceramics, porcelain and china	14,683,821
700-702	Glass	35,354,215
710229000	Industrial worked diamonds.	171,947
710399000	Semi – precious stones, ungraded, temporarily strung for convenience of transport, otherwise worked.	34,107
710420000	Synthetic precious, unworked or simply sawn or roughly shaped.	860
710510000	Dust and powder of diamonds.	27,831
710692000	Silver semi – manufactured forms.	1,250,491
710813000	Non – monetary gold in semi – manufactured forms.	25,895,697
711039000	Rhodium in semi – manufactured forms.	770
711320000	Articles of jewellery and parts thereof, of base metal clad with precious metal	78,144,032
711420000	Articles of goldsmiths' or silversmiths' wares, of base metal, clad with precious metal, parts thereof	70,410
711590000	Other articles of precious metal or of metal clad with precious metal, other than catalysts	146,792

HS.CODE	COMMODITY IMPORTS	JDs
711620000	Articles of precious or semi – precious stones (natural, synthetic or reconstructed)	3,450
711790000	Beauty accessories categories except of the ones made of base metals.	1,686,671
710-711	Sum	107,433,058
851790000	Parts of a kind used for electrical apparatus for line telephony or line telegraphy, including such apparatus for carrier – current line systems.	53,253,936
8517	Sum	53,253,936
851890000	Parts for microphones, loudspeakers, headphones, earphones and audio-frequency electric amplifiers	4,280,294
8518	Sum	4,280,294
851999000	Other sound reproducing apparatus, not incorporating a sound recording device, other than those of heading no. 85.19 – Number.	375,766
8519	Sum	375,766
852010000	Dictating machines not capable of operating without an external source of power – number.	370
852032000	Other radio-cassette of magnetic tapes, of digital types-number	33,112
852033000	Other radio-cassette of magnetic tapes, of casset types-number	66,043
852039000	Other magnetic tape recorders incorporating sound reproducing apparatus, other than cassette type- number.	35,871
852090000	Other magnetic tapes recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device, other than those of heading no. 85.20 – Number.	308,476
8520	Sum	443,872
852110000	Video recording or reproducing apparatus, of magnetic tape-type, whether or not incorporating a video tuner – number.	67,712
852190100	Digital video disks reading machines (dvd) – number	2,828,311
852190900	Other video recording or reproducing apparatus, whether or not incorporating a video tuner, other than magnetic tape-type other than (dvd) – number	298,074
8521	Sum	3,194,097
852210000	Pick-up cartridges	646
852290000	Parts and accessories for specail or main use with the machines included in items (85.19 To 85.21), Other than the pick – up cartridges.	3,239,768
8522	Sum	3,240,414
852311000	Other unrecorded magnetic tapes, of a width not exceeding (4) mm, for sound recording or similar recording of other phenomena, other than those heading no – 85.23.11	304,117
852312000	Other unrecorded magnetic tapes of a width exceeding (4) mm, but not exceeding (6.5) Mm, for sound recording or similar recording of other phenomena.	26,675
852313000	Unrecorded magnetic tapes of a width exceeding (6.5) Mm, for sound recording or similar recording of other phenomena.	430,927
852320000	Magnetized discs, unrecorded, ready for recording sounds and other phenomena.	730,978
852330000	Empty cards with magnetized lines, ready to record sound or other phenomena.	84,071
852390000	Other disks and magnetized tapes, empty ready for recording sounds or other phenomena, not mentiond or found eleswhere.	281,971

HS.CODE	COMMODITY IMPORTS	JDs
	Sum	1,858,739
852499000	Other disks and holders for recording sound or other phenomena, recorded, not mentioned or found elsewhere.	2,276,878
852540900	Still image video cameras and other video camera recorders other than the digital- number	282,684,056
852692000	Radio remote control apparatus – number.	860,079
852790900	Other radio-broadcast receivers, including apparatus capable of receiving also radio-telephony or radio-telegraphy, not elsewhere specified or included-number.	1,648,965
852830900	Other projectores, not mentioned or found elsewhere – number.	20,278,908
852910100	Aerials and aerial reflectors of all kinds; parts suitable for use therewith, for satellite reception or transmission	954,341
852910200	Aerials or antennae of kind used with apparatus for radio – telephony and radio- telegraphy	696,729
852910900	Other aerials and aerial reflectors of all kinds; parts suitable for use therewith, other than those for satellite reception or transmission	827,190
852990100	Parts suitable for use with the transmission apparatus for radio-broadcasting or television	11,609,836
852990200	Parts of transmission apparatus other than apparatus for radio-broad casting or television, trans mission apparatus incorporating reception apparatus, digital still image video cameras and portable receivers for calling alerting or paging.	1,442,284
852990900	Parts suitable for use solely or principally with the apparatus of headings no.85.25 To 85.28 Other than those falling within heading no.85.29	10,381,921
	Sum	25,912,301
854110000	Diodes, other than photosensitive or light emitting diodes	16,638
854121000	Transistors, other than photosensitive transistors with a dissipation rate of less than 1 w	6,781
854129000	Transistors, other than photosensitive transistors, with a dissipation rate of more than 1 w.	52,880
854130000	Thyristors, diacs and triacs, other than photosensitive devices, electrical.	77,612
854140000	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes.	123,623
854150000	Other semiconductor devices.	1,123
854190000	Parts of principally or solely of a kind used for diodes, transistors and similar semiconductor devices.	722
	Sum	279,379
854210000	Full electronic circuits cards, intelligent cards.	2,515,179
854221000	Monolithic digital integrated circuits.	342,308
854229000	Other monolithic integrated circuits, other than digital ones.	129,503
854260000	Hybrid integrated circuits.	69,980
854270000	Electronic microassemblies.	32,715
854290000	Parts of a kind principally or solely used for electronic integrated circuits and microassemblies	12,128
	Sum	3,101,813

HS.CODE	COMMODITY IMPORTS	JDs
854470000	Optical fibre cables, made up of individually sheathed fibres, whether or not assembled with conductors or fitted with connectors	31,011,188
	Sum	31,011,188
900110000	Optical fibres, optical fibre bundles and cables.	15,503
900120000	Sheets and plates of polarising material, of optical elements.	446
900130000	Contact lenses of any material.	838,591
900140000	Spectacle lenses of glass	99,276
900150000	Spectacle lenses of other materials	279,351
	Sum	1,233,167
900211000	Objective lenses, for cameras, projectors or photographic enlargers or reducers, of any material	30,549
900219000	Other objective lenses of any material, not else where specified or included.	4,534
900220000	Filters of optical elements, of any material.	10,178
900290000	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, not else where specified or included.	18,201
	Sum	63,462
900311000	Frames and mountings, of plastics.	76,220
900319000	Frames and mountings, of other materials other than plastics	201,659
900390100	Parts and accessories of frames and mountings for spectacles goggles or the like, imported by the opticians factories as industrial inputs.	93,927
900390900	Parts and accessories for frames and mountings for spectacles goggles or the like, other than imported by the opticians factories, as industrial inputs.	3,228
	Sum	375,034
900490000	Spectacles, goggles and the like, corrective, protective other than sun glasses.	78,125
	Sum	378,625
900510000	Binoculars.	2,818
900580000	Astronomical instruments monoculars and mountings therefor, but not including instruments for radio-astronomy	2,091
	Sum	4,909
900699000	Parts and accessories for photographic flashlight apparatus and flashbulbs.	372,397
	Sum	372,397
900792000	Parts and accessories, for projectors.	45,775
	Sum	45,775
900810000	Slide projectors – number.	427,720
900820000	Microfilm, microfiche or other microform readers, whether or not capable of producing copies.- Number	9,408
900830000	Other image projectors – number.	4,113

HS.CODE	COMMODITY IMPORTS	JDs
900890000	Parts and accessories of a kind used for image projectors, photographic (other than cinematographic) enlargers or reducers	1,376
	Sum	442,617
900999000	Parts and accessories for photo – copying apparatus incorporating an optical system or the contact type and thermo – copying apparatus.	1,457,143
	Sum	1,457,143
901050000	Other type of machinaries for photographic, or cinematographic laboratories, lighted screens for negative x-rays not mentioned or found elsewhere.	271,537
901060000	Projector screens.	206,730
901090100	Parts and accessories of the apparatus of heading 901041 or 901049.	11,720
901090900	Parts and accessories of apparatus and equipment for photographic or cinematographic.	105,236
	Sum	1,759,760
920110000	Upright pianos – number.	38,787
920120000	Grand pianos – number.	300
920190000	Pianos, including automatic pianos; harpsichords and other keyboard stringed instruments, other than those upright and grand pianos – number.	38,967
	Sum	78,054
920210000	Other string musical instruments (for example, guitars, violins, harps), played with a bow.	13,376
920290000	Other string musical instruments (for example, guitars, violins, harps) other than those played with a bow.	90,984
	Sum	104,360
920300000	Keyboard pipe organs; harmoniums and similar keyboard instruments with free metal reeds.	23,892
920410000	Accordions and similar instruments.	1,509
920590000	Other wind musical instruments unbrass,(for example clarinets, trumpets, bagpipes).	820
	Sum	4,057
920600000	Percussion musical instruments (for example, drums, xylophones, cymbals, castanets, and maraccas).	29,282
920710000	Keyboard musical instruments, other than accordions.	18,159
920790000	Musical instruments, the sound of which is produced, or must be amplified, electrically, not specified or included elsewhere in this chapter.	35,651
	Sum	53,810
920930000	Musical instruments strings.	3,631
920992000	Parts and accessories for the musical instruments of strings.	5,653
920999000	Other parts and accessories of a kind used for musical instruments, not specified or included elsewhere.	26,438
	Sum	35,722
940	Furniture	69,230,201
950	Toys	10,830,952

HS.CODE	COMMODITY IMPORTS	JDs
970110000	Paintings, drawings and pastels, executed entirely by hand other than hand-painted or hand-decorated manufactured articles.	212,265
970190000	Collages and similar decorative plaques, other than hand-painted or hand-decorated manufactured articles.	102,400
9701	Sum	314,665
970500100	Collections and collectors pieces of zoological, botanical, mineralogical, anatomical, historical, archaeological, palaeontological, ethnographic or numismatic interest, imported for scientific, and anatomical or museums archaeological purposes.	142,557

Annex 7: Number of Establishments, Employment and Revenues in 2006

Number of Establishments		
ISIC	Kingdom	Amman
22	632	467
2211	54	49
2212	64	53
2219	3	3
2221	476	331
2222	35	31
9211	57	55
9212	15	11
9213	11	10
9214	14	10
9219	170	90
7499	1557	766
6420	13	13
7494	584	290
7221	45	44
7229	135	127
7430	586	394
9112	35	30
3230	2	2
3320	2	2
21	106	75
2429	11	11
Total	4607	2864

Number of Establishments by Workers Categories						
ISIC/Workers	1 – 4	5 – 9	10 – 19	20 – 99	100 – 499	500 +
2211	41	7	2	4	0	0
22	443	97	40	43	8	1
2212	30	17	2	13	1	1
2219	1	1	1	0	0	0
2221	339	70	35	25	7	0
2222	32	2	0	1	0	0
9211	37	9	5	4	2	0
9212	10	2	1	2	0	0
9213	3	4	3	0	0	1
9214	11	2	0	1	0	0
9219	129	27	12	2	0	0
7499	1487	42	18	8	1	1
6420	2	1	1	5	2	2
7494	570	10	2	2	0	0
7221	22	13	5	5	0	0
7229	67	24	20	19	5	0
7430	491	58	22	15	0	0
9112	19	6	2	7	1	0
3230	0	0	0	2	0	0
21	37	26	18	18	6	1
2429	3	2	0	6	0	0

Number of Establishments by Revenue Categories (in Thousand JDs)							
ISIC	-5	5 – 10	10.1 – 20	20.1 – 40	40.1 – 60	60.1 – 100	100 +
22	230	149	84	57	30	24	58
2211	20	17	6	4	1	0	6
2212	19	9	12	7	4	3	10
2219	0	0	1	0	0	1	1
2221	166	120	62	44	24	19	41
2222	25	3	3	2	1	1	0
9211	13	12	9	5	5	8	5
9212	4	3	2	4	0	0	2
9213	2	1	1	0	3	1	3
9214	5	4	4	0	0	0	1
9219	50	45	43	13	10	9	0
7499	1139	225	104	34	15	23	17
6420	3	0	1	0	0	2	7
7494	343	136	78	18	6	2	1
7221	13	9	8	3	1	4	7
7229	38	23	30	6	9	9	20
7430	330	131	57	18	14	13	23
9112	14	6	2	1	2	5	5
3230	0	0	0	0	0	0	2
21	15	10	14	11	6	13	37
2429	3	1	-	-	1	1	5

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The Economic Contribution of Copyright-Based Industries in Lithuania



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Abbreviations

AEPO-ARTIS	Association of European Performers' Organisations
AGICOA	Association on Rights Protection of Audiovisual Works Authors' and Related Rights Owners
AVAKA	Association of Copyright in Audiovisual Works
CI	Copyright Industries
CISAC	International Confederation of Authors and Composers
CMOs	Collective Management Organisations
CPA	Classification of Products by Activity
EC	European Community
EU	European Union
ESTEP	Public Company <i>Europosocialiai, teisiniai ir ekonominiai projektai</i>
FTU	Full Time Units (for Employment)
GDP	Gross Domestic Product
GVA	Gross Value Added
ICI	Intermediate Copyright Industries
LATGA-A	Lithuanian Copyright Protection Association
LDS	Lithuanian Department of Statistics
LTL	Litas (Lithuanian currency)
NACE	Classification of Economic Activities in the European Community
NATA	Music Copyright Association
NCB	Nordisk Copyright Bureau
NDCI	Non-dedicated Support Copyright Industry
NSO	National Statistical Office of Lithuania
OECD	Organisation for Economic Co-operation and Development
PCI	Partial Copyright Industries
SCAPR	The Societies' Council for the Collective Management of Performers' Rights
SU(T)	Supply and Use (Tables)
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
VAT	Value Added Tax
WIPO	World Intellectual Property Organization
WCT	WIPO Copyright Treaty
WPPT	WIPO Performances and Phonograms Treaty

Executive Summary

Copyright Law

The regulation of copyright and related rights activities in Lithuania is well-developed; major international standards have been implemented over the last two decades. The principal law is the Law of the Republic of Lithuania on Copyright and Related Rights which came into force in 1999. In 2003, it was reworded as it was important to harmonise the national Copyright Law with the legal requirements of the European Union (EU) during Lithuania's accession to the EU.

Since the restoration of national independence in 1990, Lithuania has ratified key international agreements. These include: the 1886 Berne Convention on the Protection of Literary and Artistic Works (ratified in 1996); the 1961 Rome Convention on the Protection of Performers, Producers of Phonograms and Broadcasting Organisations (ratified in 1998); the 1971 Geneva Convention on the Protection of Producers of Phonograms (ratified in 1999); the Agreement on Trade-Related Aspects of Intellectual Property Rights, or TRIPS, ratified in 2001); the 1996 WIPO Performances and Phonograms Treaty, or WPPT, and the WIPO Copyright Treaty, or WCT (ratified in 2000 and 2001).

The current Copyright Law is comprehensive and includes provisions for the regulation of copyright in literary, scientific and artistic works, the rights of authors, performers, producers of phonograms, broadcasting organisations, and producers of the first fixation of an audiovisual work, and the rights of makers of databases.

Collective management of copyright and related rights activities is regulated under the Copyright Law. In 2012, there were five Collective Management Organisations (CMOs) in Lithuania. Two CMOs date back to the 1990s and have many members; newer ones are still rather small. Authors, performers and other copyright owners are free to choose the appropriate CMO for the enforcement of their economic rights depending on their activities.

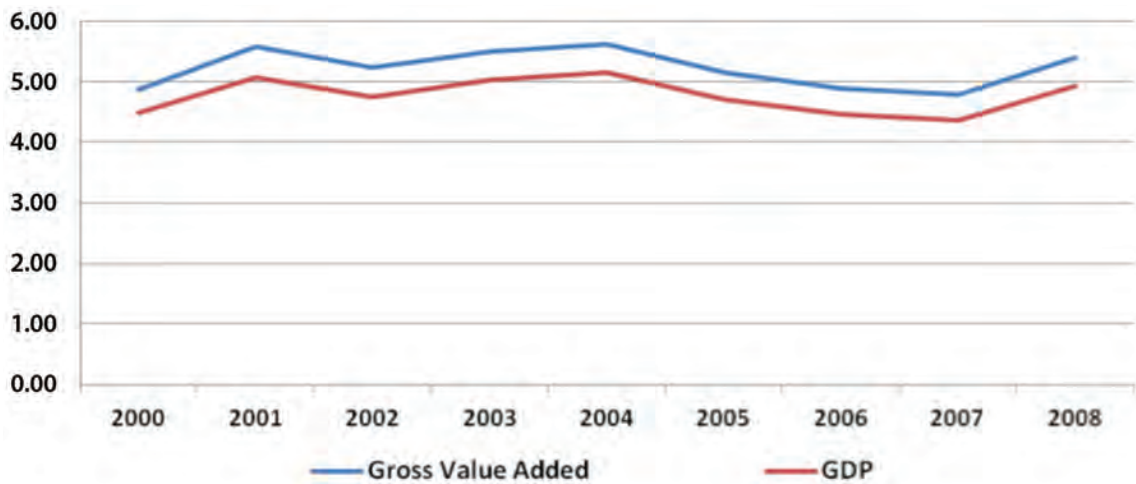
Economic Contribution

The Lithuanian copyright-based sector was analysed in terms of the value added, employment, and the foreign trade contributions of this industry to the Lithuanian economy in 2000–2008.¹ The analysis shows that the Lithuanian copyright and related rights industry made up between 4.79 and 5.62 percent of the country's economy annually over the period of 2000–2008, being 5.40 percent value in 2008. The copyright industry in Lithuania is more important in terms of gross value added (GVA) than in terms of employment as it is more productive than the economy in general. One employee in creative industries creates a larger gross value added compared to the rest of the national economy. The contribution of the copyright economy to the country's foreign exports falls close to its contribution to the national employment and to the gross value added as well. The copyright economy, as is the case in other copyright studies, is subdivided into four segments: core, interdependent, partial and non-dedicated support industries. The core copyright industry contributed 2.79 percent to the economy in 2008. The largest copyright industry in 2000–2008 was Press and Literature with a little less than 1 percent contribution to the economy at the end of the period. The rapidly growing Software and Databases industry, classified as a core copyright activity, has quickly been catching up.

A detailed statistical analysis of the value added of copyright-related economic activities shows that the Lithuanian copyright industry comprised 5.40 percent of the gross value added in 2008 while, compared to gross domestic product (GDP), it made up 4.93 percent. The difference between these two measures is explained by the fact that gross value added does not include net taxes on products or the value added tax (VAT). Both net taxes and VAT cannot largely be attributed to economic activities; thus, a share of the copyright industry is smaller in terms of GDP than in terms of GVA. This research is based on the GVA measure throughout the study, which, according to the emerging consensus among researchers, suits the current aim better; nevertheless, due to country comparability reasons, the aggregates are provided in GDP percentages as well. The following Figure shows that both measures are moving strictly in parallel and differences are of the same scale each year.

¹The employment figures were analysed for the period of 2001–2008, the export figures, for the period of 2004–2008.

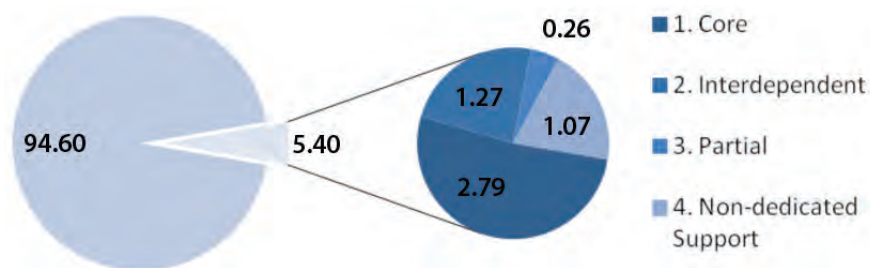
Copyright Industry Contribution to GVA and GDP, %



Source: calculated by the authors

The structure of the copyright economy is dominated by the core copyright industry. More than half of the value added created in the copyright industry in 2008 comprised the core copyright industry, creating 2.79 percent of GVA. The interdependent copyright industry, which is the one most closely related to the core copyright industry, made up 1.27 percent of the national economy. The partial copyright industry created 0.26 percent of the value added in the economy. Finally, the part of the economy which serves the copyright industry, and which is traditionally classified as the non-dedicated support copyright industry, comprised 1.07 percent of the value added. These numbers were derived from structural business statistics by reconciling the data with the national accounts aggregates. The structure of the economic contribution to the Lithuanian economy (GVA) is presented in the following Figure.

Copyright Industry Contribution to Gross Value Added in 2008, %

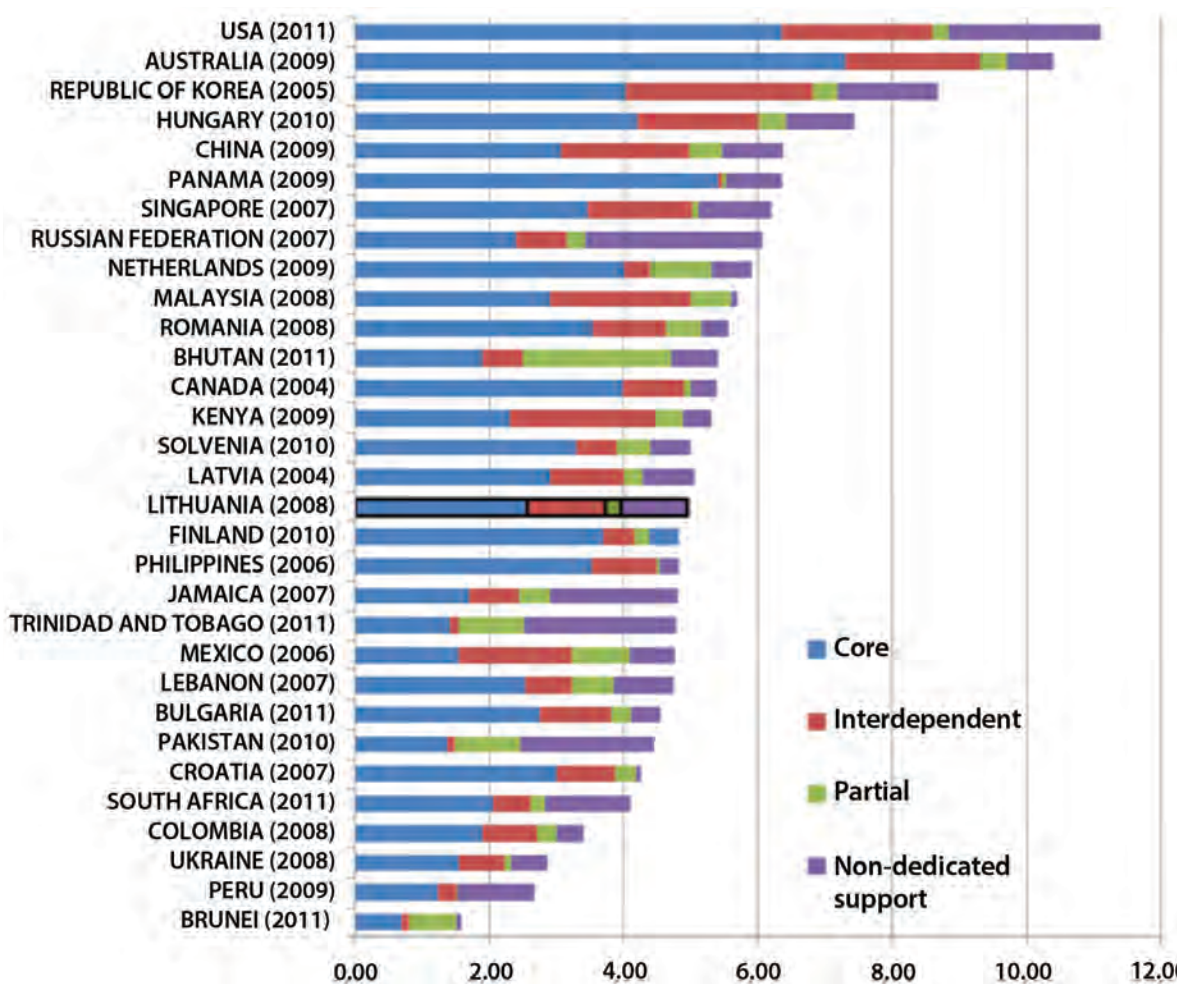


Source: calculated by the authors

The findings above allow mapping of the Lithuanian position to the global picture by comparing the importance of the copyright industry in other countries which have conducted similar statistical research. As presented below, the Lithuanian copyright industry is slightly smaller than the corresponding part of the economy in neighbouring Latvia and slightly larger than the copyright industry in Finland. International comparison demonstrates the relatively advanced stage of the Lithuanian copyright economy, which also corresponds to the highly-developed legal regulation of the copyright activities.



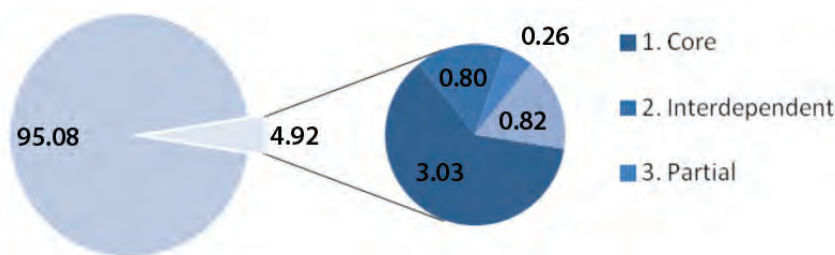
National Contributions of Copyright Industries to GDP, %



Source: calculated by WIPO and the authors

The analysis of the employment dynamics indicates that the copyright industry generated slightly less employment than value added. In 2008, employment in the Lithuanian copyright industry comprised 4.92 percent of the total employment (value added equalled 5.40 percent). Moreover, more than half of the employment, 3.03 percent, was generated by the core copyright industry. The interdependent copyright industry made up 0.80 percent, while the partial copyright industry created 0.26 percent of the overall employment. Finally, the non-dedicated support copyright industry comprised 0.82 percent of the total employment. The employment structure with regard to the Lithuanian copyright industry is shown in the Figure below.

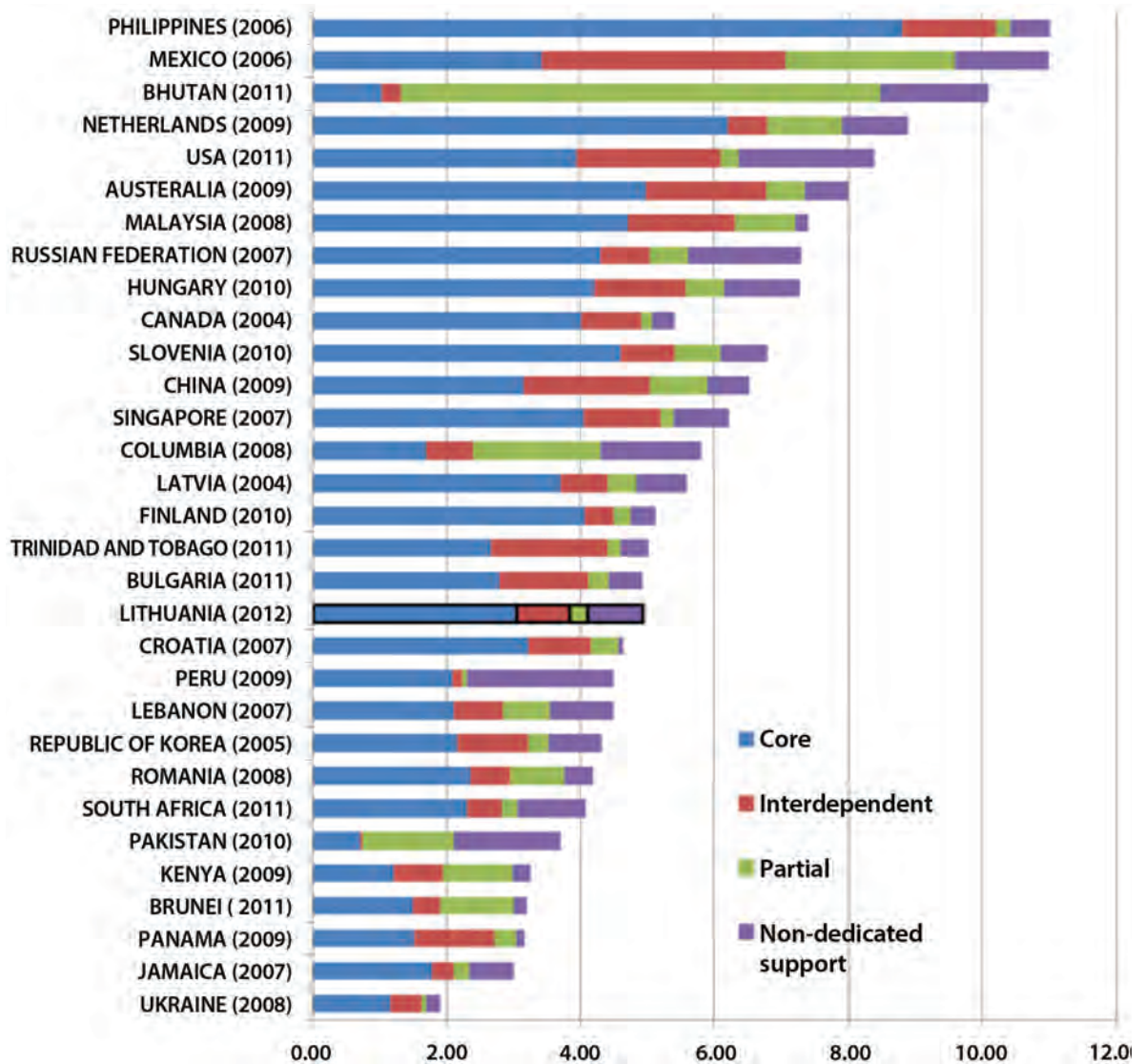
Employment by the Copyright Industry in Lithuania in 2008, %



Source: calculated by the authors

An international comparison shows that, due to differences in productivity across different countries, the Lithuanian copyright economy ranks lower in terms of the employment measure. It generates less employment than in Latvia and Finland, to which countries Lithuania ranked very close in terms of the value added contribution. Nonetheless, Lithuania falls between Bulgaria and Croatia. In fact, the lower ranking means that the copyright industry is relatively productive. Following this assumption, the productivity of the Lithuanian copyright sector employment could be defined as relatively advanced compared to the other countries examined.

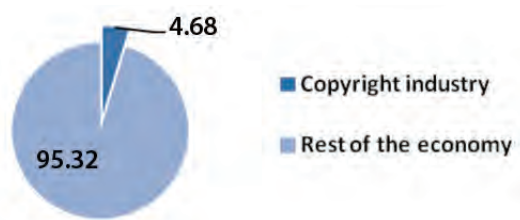
Contribution of Copyright Industries to Employment, %



Source: WIPO

The third analysed feature of the copyright industry in Lithuania was its contribution to export in goods and services. It was remarkably close to that of employment, and made up 4.89% in 2008. Since the copyright economy comprises 5.40% of value added, it shows that the domestic role of the copyright industry is higher than its ability to contribute revenues from abroad.

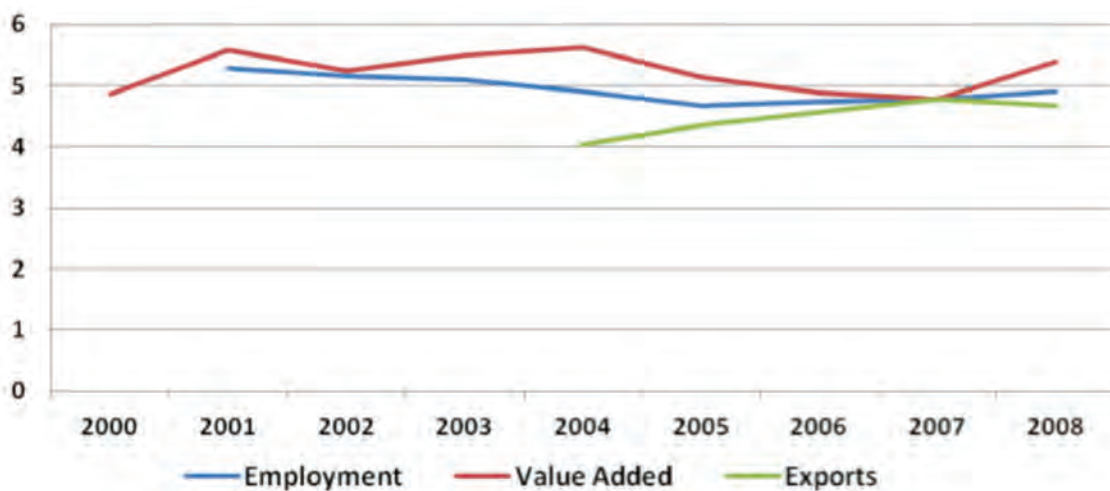
Exports Structure in 2008, %



Source: calculated by the authors

The statistical analysis shows that the value added and employment of the copyright industry are closely related, while copyright-based exports have a rather different dynamic. Development in the value added has shown more volatility when compared to a smoother employment trend. Nevertheless, both the value added and employment measures exhibited parallel movements in the medium term. The contribution of the copyright industry to foreign trade shows more similarities in its dynamics with employment than with the value added. As is the case in the overall economy, development in foreign trade of the copyright industry is much more pronounced if compared to contributions of the value added or employment. The table below summarises the economic history of Lithuanian copyright over the period 2000–2008.

Copyright Industry Contribution to the Lithuanian Economy, %



Source: calculated by the authors

This study provides a comprehensive analysis of the three most important core copyright industries in Lithuania. The analysis of these three, separately analysed, industries goes beyond their value added and employment components and includes an analysis of business demography. During the first decade of the millennium, the Press and Literature industry was experiencing the toughest ever period on record, reducing its share in the economy by a third. During the same period, the Software and Databases industry demonstrated an outstanding story of success, increasing its economic share twice over. Advertising Services, being third in terms of economic size, augmented its share in the economy by a half.

The last Part of the study provides technical details for those willing to conduct their own copyright studies. In order to make the text more user-friendly, the most technical parts of data collection, imputation, reconciliation with national accounting, and the underlying data are presented in 12 dedicated annexes.

The research of the Lithuanian copyright industry was conducted consistently, applying the World Intellectual Property Organization guidelines and recommendations. It was decided to cover several subsequent years (nine years in total), which is rather rare in the copyright industry studies commissioned by the WIPO. This decision helped to provide a clearer picture of how the Lithuanian copyright economy was evolving throughout a nearly complete business cycle.

1. Introduction to the Study

The Introduction discusses the reasons for measuring the contribution of copyright and related rights-based industries to the Lithuanian economy. It presents the purpose and the objectives of this study, as well as the structure of the study, and information regarding the applied methodology and indicators.

Industries based on copyright and related rights activities make a considerable contribution to national economies across the globe, and have deserved careful investigation over the past two decades. National studies in more than 30 countries have revealed that these industries are substantial contributors in terms of their country's gross domestic product (GDP) and/or gross value added (GVA),² as well as in their contribution to employment, and foreign trade in goods and services.³

Although copyright-based industries are politically important in Lithuania, they have not been widely discussed. Information about their contribution to the economy has not been analysed in detail to date. The only related study was conducted in 2005,⁴ but it was rather general, used extremely simple qualitative methods of analysis which are by no means comparable to the analytical standard developed by the World Intellectual Property Organization (WIPO).

A natural question raised many times by policy makers and analysts was where does the Lithuanian copyright industry stand in terms of value added, employment and foreign trade when compared to other countries? What do the copyright industry's development trends in Lithuania say about the perspectives of this economic sector in the country? Which sectors of the copyright industry are the main contributors and which are minor contributors? Which copyright subsector has developed the most rapidly over the last decade? What policy lessons could be drawn from other countries? To answer all these questions there was a genuine need for a specific and comprehensive copyright study.

Prior to the study it was assumed that the copyright-based industries created approximately 5 percent of GDP. This was an assumption waiting for confirmation or rejection, not supported by reliable and comprehensive statistical techniques. Creating a solid basis for policy-makers would enable them to review the policy of allocating national budget to the cultural (and copyright-related) sector and better target the current budgetary spending. From budgetary figures, it was known that the national budget expenditure share on cultural activities was approximately two times smaller than their share in country's value added.⁵

All in all, the vital need for a detailed and extensive study of the contribution of the copyright-based industries to the national economy is built on three arguments.

Firstly, such a study would help to build a sounder understanding of the economic value of copyright-related activities. Guidelines for the Development of the Lithuanian Cultural Policy⁶ declare the intention of calculating the real contribution of the copyright-based industries to the national economy, and possibly changing the existing attitude that copyright-related activities are only sustained by state revenues.

Secondly, the Guidelines for the Development of the Lithuanian Cultural Policy define the need for developing a national methodology for calculating the contribution of cultural industries to the national economy. In 2003, (WIPO) published the 'Guide on Surveying the Economic Contribution of the Copyright-Based Industries' (WIPO publication No 893, hereafter referred to as the 'WIPO Guide'), to provide a methodology for measuring the contribution of copyright-based industries in economic terms to a country's development. The WIPO Guide has been used as a methodological tool in over 30 country studies. It was evident that the application of an internationally comparable methodology in Lithuania could improve policy making.

Thirdly, the results of an extensive study of the copyright-based industries could be used by different interest groups. For the copyright-related private sector, it is necessary to have a clear understanding of how each

²Gross Domestic Product (GDP) and Gross Value Added (GVA) are closely related concepts. GDP is derived from GVA by adding net taxes on products. Net taxes on products is made up of taxes on products minus subsidies on products.

³The most complete set of copyright studies may be found on the WIPO website.

⁴TNS-Gallup, ESTEP, 'Pramonės, susijusios su autorių teisėmis ir gretutinėmis teisėmis, ekonominė svarba Lietuvoje.' 2005 ('Economic Importance of the Copyright and Related Rights-Based Industry in Lithuania').

⁵Spending on cultural and leisure sector is 2.6 percent of the national budget (2011).

⁶Approved by the Lithuanian Parliament in 2010.

industry develops, its future prospects, and to be able to optimally allocate investments. This study could be instrumental in reviewing fiscal and structural policies in relation to the copyright-related industries. In the long-term perspective, the results of the study will be conducive to evaluating the development of the copyright-based industries.

All things considered, detailed research into the economic value of the copyright-based industries provides a robust and consistent dataset regarding the actual economic contribution of the creative industries, which can serve as a basis for adjusting policies and strategies aimed at promoting growth and development in national copyright-based sectors.

1.1 purpose and objectives of the study

The **purpose** of this study was to produce a precise map of the copyright-based industries in Lithuania in terms of economic value. The **key objectives** of the study were to:

- **quantify the economic contribution** of copyright and related rights-based industries in the country by estimating their value added to GDP (and GVA), share of national employment, and revenue generated from foreign trade;
- **analyse and elaborate selected copyright and related rights-based industries of importance to Lithuania**, their national market structure, value chain, demand and supply patterns, labour market, and the role of collective management organisations and other copyright-related organisations;
- **identify the comparative advantages of the Lithuanian copyright-based industries** with regard to other countries; and
- **propose a strategy** for encouraging the growth and development of copyright-based industries in the country.

1.1 Background Information on the Study

The study aims at presenting the economic contribution of the copyright industry to Lithuania's economy. However, for a better understanding of economic processes in the sector, a brief legal analysis is presented as well (see Part 2). It discusses the legal background for copyright-related works and the rights of relevant subjects. Lithuania's participation in international conventions and agreements is explained in detail. In addition, this Part examines collective rights management and the collective management associations operating in Lithuania.

Part 3 presents the results of this study. It provides an overview of the Lithuanian copyright industry by presenting the economic contribution of copyright to GVA, employment, and foreign trade. Comparing the value added contribution with the employment contribution allows the examination of the productivity of the copyright industry and its constituents. Moreover, all these aspects are analysed in dynamic development over 2000–2008.

The reliability and consistency of economic analysis are essential aspects of the quality of the copyright studies. They are needed for better applicability of the results of the study to the future endeavours in copyright management; therefore, the team has paid great attention to the analytical approach applied in the study. The decision was taken to analyse the economic contribution to the GVA not for a single year, but to investigate the entire time series for 2000–2008. Specific datasets were derived and calculations were performed following the procedure of imputation of data received from the Statistics Department of the Republic of Lithuania and from the Bank of Lithuania. In one instance, where official statistics were unavailable for confidentiality reasons, some data from commercial data vendors were employed. Most calculations were completed at basic prices. However, at the final stage, the economic contribution results were recalculated at market prices in order to make them more comparable with GDP. The structure of the Lithuanian copyright-related industry and its features were measured. Based on these results, copyright factors were evaluated. The very technical character of the methodology is dealt with in Part 4. The most complex technical details are presented in Annex 1 of the study.

Finally, Part 5 presents the conclusions of the analysis and recommendations for the future. The recommendations address Lithuanian national authorities as to how to utilise the results of this study and how the copyright economy contribution could be measured in Lithuania in the most cost-conscious way.

It should be noted that the sources for external data in the tables and graphs are credited immediately below the relevant table or graph; sometimes, the source are the authors of this study who handled all the calculations of the data provided hereafter.

2. Copyright Law in Lithuania

This Part provides an overview of the national legal system and its enforcement in the copyright and related rights activities, as well as defines collective management practices in Lithuanian copyright-based industries.

The independence of Lithuania was restored in 1990, ending an annexation that had lasted for half a century. Not only the recognition of the Government, its inter-state relations and economic system had to be re-established, but also the entire legal system had to be reformed. It is important to note that Lithuania has never had its own legal copyright traditions. Throughout its history, legislation based on the copyright traditions of other countries were taken over or simply enforced in the territory of Lithuania. Therefore, after 1990, the system of Copyright Law was basically created from scratch rather than reformed.

At present, the enactment of the Constitution of the Republic of Lithuania is of high importance to the protection of intellectual property. Article 42.1 of the Constitution sets forth that culture, science, research and teaching shall be unrestricted. Moreover, Article 42.3 of the Constitution sets forth that the spiritual and material interests of authors which are related to scientific, technical, cultural and artistic work, shall be protected and defended. It should also be noted that Article 23.1 of the Constitution has extended the protection to property and, as the Constitutional Court of the Republic of Lithuania has noted, the constitutional protection of property covers not only the protection of tangible, but also of intellectual property.⁷

The main legislative source of copyright in Lithuania is the Law of the Republic of Lithuania on Copyright and Related Rights. The Law has been amended several times, the most significant amendments related to the implementation of the directives of the European Union (EU) into the national law. Lithuania is a party to the main multilateral conventions and bilateral agreements in the field of copyright and related rights. In general, regulation of copyright activities is legally consistent and reflects major international standards.

2.1 Current Law on Copyright and Related Rights

In the early 1990s, Chapter 6 of the Civil Code of the Soviet Republic of Lithuania covering the introduction of copyright law was still in force, but the process of amending and supplementing the legal acts was started as well. The Civil Code was amended in 1994. The principal amendments made to the regulation of some related rights activities was due to the fact that related rights activities had no protection in Lithuania before that time. In 1996, the first law specifically dealing with the legal protection of computer programs and databases was passed and remained effective until the new Law on Copyright and Related Rights was adopted and came into force on 1999.

The Law of the Republic of Lithuania on Copyright and Related Rights, *Autorių teisių įrgretutinių teisių įstatymas* (hereafter referred to as the 'Copyright Law' or the 'Law') is the main legislative source of copyright protection. It was first enacted on 18 May 1999 and came into force on 9 June 1999. The initial wording of the Copyright Law reflected the key provisions of the contemporary EU directives, as well as preserving the well-established French traditions of copyright protection that rested on the concept of individual rights. The new wording of the Copyright Law was adopted on 5 March 2003 (enforced on 21 March 2003). Since then, it has since been amended several times with the most significant amendments relating to the transposition of European Community Directives in national law.⁸

The current Copyright Law consists of the following chapters: Chapter 1, General Provisions; Chapter 2, Copyright; Chapter 3, Related Rights; Chapter 4, *Sui Generis Right*; Chapter 5, Collective Management of Copyright and Related Rights, and Chapter 6, Enforcement of Copyright, Related Rights and *Sui Generis*

⁷ See Judgments of the Constitutional Court of the Republic of Lithuania 5 July 2000, 27 March 2009 and 6 January 2011.

⁸ The following amendments should be noted:

(1) Law No IX-1355 of 5 March 2003 (new wording of the Copyright Law, effective 21 March 2003), which implemented the Information Society Directive 2001/29/EC.

(2) Law No X-855 of 12 October 2006 (effective since 31 October 2006) which implemented the Enforcement Directive 2004/48/EC and the Resale Rights Directive 2004/84/EC;

(3) Law No X-1454 of 13 March 2008 (effective since 27 March 2008) which amended the regulation of the limitation of the author's exclusive right to publicly display the original or copies of a work.

Right. The Government of the Republic of Lithuania has issued the following resolutions to implement the Copyright Law:

1. Resolution No 1283 of 19 November 1999 on the Implementation of Copyright and Related Rights of the Republic of Lithuania (the Ministry of Culture was authorised to exercise the State's policy in the area of copyright and related rights and to coordinate the protection of the said rights).
2. Resolution No 181 of 6 February 2002 on the Approval of the Procedure for the Payment of Remuneration for the Reprographic Reproduction of Works.
3. Resolution No 182 of 6 February 2002 on the Approval of the Procedure for the Payment of Remuneration for the Lending of Books and other Publications through Libraries (amended by Resolution No 905 of 14 August 2007).
4. Resolution No 1018 of 12 August 2003 on the Approval of the Procedure for the Protection of Author and Performer's Moral Rights in Case of the Absence of Any Heirs, as well as After the Expiry of Economic Rights.
5. Resolution No 699 of 13 June 2012 on the Approval of the Procedure for the Collection, Distribution, Payment and Refunding of Compensatory Remuneration for the Reproduction of Audiovisual Works or Works Fixed in a Phonogram for Personal Use.

2.2 International copyright law

Currently, Lithuania is a party to the following multilateral conventions and bilateral agreements in the field of copyright and related rights:

Multilateral conventions

1. **The 1886 Berne Convention for the Protection of Literary and Artistic Works (Paris Act 1971).** Lithuania agreed to the Berne Convention on 14 September 1994 and has been a party to the Berne Convention since 14 December 1994 (the Convention was ratified by Law No I-1351 of 28 May 1996). Lithuania made a reservation to Article 33.2 of the Berne Convention regarding dispute settlement, stating that any member state of the Berne Convention may appeal to the International Court when not reaching consensus in the negotiations.
2. **The 1961 Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations.** On 22 December 1998 Lithuania ratified the Rome Convention (by Law No VIII-1001) and it entered into force for Lithuania on 22 July 1999. Lithuania made a reservation to Article 12 of the Rome Convention, ostensibly exempting it from paying remuneration for phonograms by producers who are not nationals of any Rome Convention signatory.
3. **The 1971 Geneva Convention for the Protection of Producers of Phonograms.** On 13 April 1999 Lithuania ratified the Geneva Convention (by Law No VIII-1140) and it entered into force for Lithuania on 27 January 2000.
4. **The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).** As a member of the World Trade Organisation since 31 May 2001, Lithuania is bound by the TRIPs Agreement. It was ratified by Lithuania on 24 April 2001 (by Law No IX-292).
5. **The 1996 WIPO Treaties.** Lithuania ratified **the WIPO Copyright Treaty** on 13 March 2001 (by Law No IX-212), **the WIPO Performances and Phonograms Treaty** on 26 September 2000 (by Law No VIII-1956). The latter entered into force for Lithuania on 20 May 2002, the WIPO Copyright Treaty on 6 March 2002.

Bilateral agreements

1. European Union. On 12 June 1995, Lithuania concluded the Association Agreement with the European Union and the EU Member States. Article 67.3 and Annex XIX of the Association Agreement obliged the Republic of Lithuania to harmonise its legislation and to improve the protection of intellectual property rights in such a way that, by the end of transitional period, a protection level similar to the level existing in the European Community (EC) could be reached.
2. At the level of the Government of the Republic of Lithuania, Lithuania has concluded agreements on co-operation in the fields of education, science and culture with Poland, Slovenia, Hungary, Greece, the

United Kingdom and Bulgaria.⁹ Each of these agreements provides, *inter alia*, for the protection by each of the parties of the copyright and related rights of citizens, permanent residents, and legal entities of the other party.

The legal base from which Lithuania could start harmonising its national law with European Community (EC) legislation was the Europe Agreement, establishing an association between the European Communities and their Member States and the Republic of Lithuania, signed on 12 June 1995. Article 67 of the Agreement emphasised the importance of ensuring adequate and effective protection and enforcement of intellectual, industrial and commercial property rights, while Paragraphs 2 and 3 of this Article laid down the essential obligations to be accomplished by Lithuania by the end of the transitional period which, according to Paragraph 1 of Article 3 of the Agreement, was to expire on 31 December 1999. The Lithuanian commitment to continuously improve the protection of intellectual, industrial and commercial property rights in order to provide a similar level of protection to that which exists in the Community was an expressed prerequisite for the drafting of new laws in the field of copyright law, including related rights.

Currently the following Directives are implemented by the Lithuanian Copyright Law:

1. Council Directive 93/83/EC of 27 September 1993 on the Coordination of Certain Rules Concerning Copyright and Rights Related to Copyright Applicable to Satellite Broadcasting and Cable Retransmission.
2. Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases.
3. Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society.
4. Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the Resale Right for the Benefit of the Author of an Original Work of Art.
5. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the Enforcement of Intellectual Property Rights.
6. Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property.
7. Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights.
8. Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the Legal Protection on Computer Programs.

2.3 Subject Matter and Beneficiaries of the Copyright Law

National legislative provisions on subject matter and beneficiaries of the rights have been influenced by the related provisions as embodied in international treaties and in the relevant EC directives. A list of works is based on Article 2 of the Berne Convention. For copyright, Lithuanian Copyright Law does not impose any preconditions although, for audiovisual works, fixation is required.

2.3.1 Subject Matter of Protection

Author's rights

According to Article 4.1 of the Copyright Law, the subject matter of copyright includes original literary, scientific, and artistic works which are the result of the creative activities of an author. Article 2.19 of the Law establishes that 'work' means any original result of creative activities in the literary, scientific, or artistic domain, whatever its artistic value, mode, or form of expression. This substantially corresponds with the description of works provided in Article 2.1 of the Berne Convention.

⁹ Poland – the agreement of 17 December 1998 entered into force on 5 January 2000, Slovenia – the agreement of 14 November 1997 entered into force on 2 January 2002, Hungary – the agreement of 7 October 1997 entered into force on 21 June 2000, Greece – the agreement of 24 February 1997 entered into force on 24 September 1998, the United Kingdom – the agreement of 8 November 1996 entered into force on 1 April 1998, Bulgaria – the agreement of 10 April 1997 entered into force on 27 November 1997.

The Copyright Law contains special provisions relating to the peculiarities of protection criteria for computer programs, databases and photographs, in accordance with the provisions of EC legislation in respect of protection granted for such a subject matter:

- i. A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation and no other criteria shall be applied to determine its eligibility for protection (Article 1.3 of the Council Directive 91/250/EEC, Article 10.1 of the Copyright Law).
- ii. Databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright and no other criteria shall be applied to determine their eligibility for that protection (Article 3.1 of the Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases).
- iii. Photographs shall be protected by copyright if it is determined that they are the author's own intellectual creation and this alone is considered to be sufficient to determine their originality (Article 6 of the Council Directive 93/98/EEC of 29 October 1993 harmonising the term of protection of copyright and certain related rights).

For any original result of creative activities to be granted copyright protection, it is sufficient for it to be expressed in any objective form.

Lithuanian Copyright Law does not impose any formalities as preconditions of copyright. Fixation is required for audiovisual works. An audiovisual work means a cinematographic work or any other work created by means of cinematography, consisting of a series of related images which impart an impression of motion, whether or not accompanied by sound, and which are recorded (fixed) in an audiovisual recording medium (Article 2.4 of the Copyright Law).

A list of works laid down in Article 4.2 of the Copyright Law is based on Article 2 of the Berne Convention. The *numerus clausus* principle is not applied in respect of the list of works eligible for copyright protection but is quite detailed (12 groups). In accordance with the provisions of Article 10 of the TRIPS Agreement and Articles 4 and 5 of the WCT, computer programs and databases enjoy protection as works. The regulation of protection of computer programs and databases is identical to that set forth in the EC Computer Programs Directive and the EC Database Directive.

Under Article 2.7 of the Law, a database means a compilation of works, data or any other material arranged in a systematic or methodical way and individually accessible by electronic or other means, except for computer programs used in the making or operation of such databases.

Works of applied art are granted double protection, i.e., even if a work of applied art has been registered as an industrial design, rights to such a work can be protected cumulatively under the special Law on Industrial Design of 7 December 2002, and the Copyright Law. Article 17 of the EC Directive 98/71/EC¹⁰ grants double protection for industrial designs in the EU Member States, both under industrial design and copyright legislation. In the light of this provision, Article 4.3 of the Lithuanian Design Law also provides that registered designs may be protected by the Copyright Law if they are expressed in any objective form.

Article 2.10 of the Law lays down that a photographic work is an image produced on surfaces sensitive to light by means of light, or any other radiation, if the composition, selection or way of capturing the chosen objects show originality, irrespective of the technology (chemical, electronic, etc.) of such fixation. A still picture extracted from an audiovisual work is not considered to be a photographic work, but only a part of the audiovisual work concerned.

Related rights

In Lithuania, the protection of related rights has been provided since 10 June 1994. The regulation of protection identically reflects provisions of the appropriate international treaties and the relevant EU legislation. The Copyright Law protects the related rights of performers, phonogram producers, broadcasting organisations, producers of the first fixation of audiovisual recordings, publishers of public domain works and the *sui generis* right in databases.

¹⁰ Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs (OJ 1998 L 289, p. 28).

a. Performance

According to Article 2.30 of the Copyright Law, performance means acting, singing, playing, reciting, reading, dancing or otherwise publicly performing a work, either directly (live performance) or by means of any device or equipment in a certain public place in which a group of members of the public of an indefinite number are, or may be, present at the same time. Article 2.8 of the Law provides that a phonogram means the fixation of the sounds of a performance, or of other sounds, or of the representation of sounds, by technical devices in any material sound-recording medium.

b. Broadcasting and transmission

According to Article 2.28 of the Law, broadcasting means the transmission by wireless means, including by satellite, for public reception of sounds, images and sounds, or representations thereof. The transmission of encoded signals is considered to be transmission if a broadcasting organisation provides society with special decoding devices, or grants permission to acquire them.

c. Audiovisual recording

The term 'audiovisual recording' is not very clearly defined in the Copyright Law. According to Article 2(4) of the Copyright Law, an audiovisual work means a cinematographic work or any other work created by means of cinematography, consisting of a series of related images, which imparts an impression of motion, whether or not accompanied by sound. The term 'producer of the first fixation of an audiovisual work' is used in Article 57.1 of the Copyright Law. According to the Directive 2006/116/EC, the term 'film' includes not only a cinematographic or audiovisual work but, in relation to the related rights, also moving images, whether or not accompanied by sound. There are no special provisions implementing these provisions of the Directive. However, the existing legislation will have to be interpreted in view of the objectives of the Directive.

d. Sui generis right in databases

The *sui generis* right to a database protects the substantial qualitative and/or quantitative (intellectual, financial, organisational) investment in obtaining, arranging, verification and presentation of the contents of that database (Article 61.1 of the Law).

e. First publication after expiry of protection

Article 36 of the Copyright Law grants protection to anyone who lawfully publishes, or communicates to the public, a previously unpublished work for the first time.

2.3.2 Author of Work

Author

Article 6.1 of the Copyright Law establishes that 'the author shall be a *natural person* who has created a work'. Natural persons may be owners of copyright, irrespective of their age and legal capacity. Any person who has created a piece of work of whatever value shall be the author and may enjoy all copyright with regard to their work.

Legal entities cannot be considered authors or initial right holders. Legal entities can, in cases provided for by the Law, by copyright agreements or by way of bequeath, enjoy derivative authorship rights. However, this includes economic rights only. In all cases, the owners of moral rights shall be authors who are natural persons.

Article 7.1 of the Copyright Law defines a 'joint work' to which several natural persons have commonly contributed. Each co-author shall be entitled to use, at their own discretion, the part of the joint work created by them and having an autonomous meaning, unless otherwise provided for in the agreement concluded among the co-authors. However, a person who has provided material, technical or organisational assistance in the process of the creation of a work shall not be considered to be its co-author.

According to Article 11.1 of the Copyright Law, co-authors of an audiovisual work are persons who contribute creatively to its completion. This provision presumptively specifies that co-authors may be the director, author of the screenplay, author of the dialogue, art director, cameraman and composer of music (with or without

lyrics) specifically created for use in the audiovisual work. Authors of the pre-existing works included in, or adapted for, the audiovisual work, shall enjoy copyright to their works.

The economic rights of an author to collective works (such as encyclopaedias, encyclopaedic dictionaries, periodical scientific collections, newspapers, journals, and other collective works) shall vest in the natural person or legal entities on the initiative, and under the direction of whom, the work has been created (Article 8 of the Copyright Law). Authors of works incorporated in collective works shall retain exclusive rights to exploit their works independently of the use of the collective work, unless otherwise provided for by an agreement.

Owners of related rights

As mentioned above, the Copyright Law protects the related rights of performers, phonogram producers, broadcasting organisations, producers of the first fixation of audiovisual recording, publishers of public domain works and the *sui generis* right to databases.

A *performer* means an actor, singer, musician, dancer or another person who plays in, sings, reads, recites, or otherwise performs literary and artistic works, folklore, or circus acts, including a leader and conductor of an orchestra, ensemble or choir (Article 2.2 of the Copyright Law).

According to Article 2.9 of the Law, a *producer of a phonogram* means a natural person or a legal entity on the initiative, and under the responsibility of whom or which, the first fixation of the sounds of a performance or other sounds, or the representation of sounds is made. A *producer of an audiovisual recording* means a natural person or a legal entity on the initiative, and under the responsibility of whom or which, an audiovisual recording is being made (Article 2.3 of the Law).

Article 2.29 of the Copyright Law defines a *broadcasting organisation* as a legal entity, the main activity of which is the preparation and transmission of radio and (or) television programmes, as well as a cable transmission operator preparing and transmitting its own broadcasts and programmes.

Article 36.1 of the Copyright Law defines a *publisher* as a natural person or a legal entity on the initiative, and under the responsibility of whom or which, the first lawful publication or lawful communication to the public is made.

Article 61.1 of the Law describes a *maker of a database* as a natural person or a legal entity who or which takes the initiative and the risk of substantially investing in order to obtain, verify or present its contents.

2.4 Rights granted to Right Holders

2.4.1 Economic Rights

National legislative provisions on the economic rights of authors have been influenced by the related provisions as embodied in international treaties and in the relevant EC directives. Article 15.2 of the Copyright Law notes that any mode of exploitation of the original of a work or of its copies without the permission of the right holder shall be considered illegal, with the exception of cases provided for in the Law. The author shall have the right to receive remuneration for each mode of the exploitation of the work related to the author's economic rights. Moreover, it is particularly emphasised that, in the case of a public performance of a work, the author shall be entitled to remuneration for any live performance, fixation on a phonogram or an audiovisual fixation, radio and television broadcasting, or retransmission.

Article 15.1 of the Copyright Law lays down the following economic rights of authors: (1) reproduction, including publication; (2) translation, adaptation, arrangement, dramatisation or other transformation; (3) distribution, including rental, lending, offering for use, import and export; (4) public display; (5) public performance, and (6) communication to the public (broadcasting by any means and the making available to the public over public computer networks such as on the Internet). It sets out an extensive, but not exhaustive, list of examples of fields in which rights may be exploited.

Reproduction

Article 2.1 of the Copyright Law defines reproduction of a work as the production of a single or of several copies of a work or its part in any material form, including electronic. The exclusive right of the author in the reproduction of works shall include all means of reproducing a work, irrespective of their form. Any embodiment in which a work is fixed is treated as a copy, irrespective of the technique used. Such a technique may be the production of copies of a work enabled by the use of printing, sound or visual recording or other techniques of reproduction and copying, such as any printing means: typewriting, computer text, photocopying, mechanical and magnetic recordings (discs, cassettes, compact discs, films, microfilms, etc.).

Publication is defined as the production of copies of a work in quantities sufficient to satisfy the reasonable requirements of the public, regardless of the method of production, provided that such work is made available to the public with the consent of the owner of such a right (Article 2.14 of the Law). Works may be published in the form of mechanical and magnetic recordings (cassettes, compact discs, etc.) or in a digital form (such as in a form of so-called electronic books in compact discs and computer discs).

Translation and adaptation

Article 15.1(3–4) of the Copyright Law defines the author's right of adapting the work by themselves or authorising the adaptation thereof, and lists the following means of transformation: adaptation, arrangement, dramatisation, translation, etc. The list of forms for transformation of works is not exhaustive. Adaptation is a means of application of a work for use in another manner or for a special purpose.

Distribution

Article 15.1(5) of the Copyright Law defines distribution of a work as sale, rental, lending, or other transfer of ownership or possession of the original or copies of a work. The distribution right means the author's right to offer the original or copies of a work or distribute copies to the public. As well as the Copyright Law, the EU-wide exhaustion of distribution rights is applied in accordance with Article 4.2 of the Information Society Directive 2001/29/EC. It applies not only to the area of the EU, but also to the entire EEA (Article 16.1 of the Law). The provisions on the exhaustion of the distribution right upon sale or other transfer of ownership shall not apply to the exclusive rights of rental or lending of the work or its copies (Article 16.2 of the Law). Article 2.24 of the Law defines rental as making the original or copy of a work available for use for a certain period of time, and for direct or indirect commercial advantage. Lending is defined as making the original or copy of a work available for use for a certain period of time and not for direct or indirect economic or commercial advantage in libraries or other establishments accessible to the public (Article 2.25 of the Law).

Public display

Article 2.32 of the Law defines public display as any showing of a work (its original or a copy) directly (exposition) or on a screen by means of slides, television images or other similar means, as well as the showing of individual still images of an audiovisual work non-sequentially in a place where a group of members of the public of an indefinite number are or may be present, irrespective of whether they are present in the same place and at the same time, or in separate places and at different times. The author's exclusive right to public display of the original or copies of a work may be applied in practice only with regard to works of fine art and works of architecture (public display of works of painting, graphic art, sculpture in exhibitions, galleries, displays of a project, sketches or models of a building or any other construction, etc.), photographic works and other works created by a process analogous to photography.

Public performance

Public performance means acting, singing, playing, reciting, reading, dancing or otherwise publicly performing a work, either directly (live performance) or by means of any device or equipment in a certain public place in which a group of members of the public of an indefinite number are or may be present at the same time (Article 2.30 of the Copyright Law). The right to perform a work to the public in any form or by any means shall apply to dramatic, dramatic-musical, musical or literary works intended to be performed on the stage.

The right shall apply to both a live performance (when a work is performed by a singer, musician, choir, orchestra, etc.) and the use of recordings of a live performance (when recordings of works in compact discs, cassettes, etc., are used in public).

Communication to the public

The Copyright Law recognises the right to make a work available to the public by way of, *inter alia*, broadcasting, cable transmission, retransmission, or internet transmission. Communication to the public is defined as the transmission or retransmission of a work to the public by wire or wireless means, including making the work available to the public in such a way that members of the public may access it from a place and at a time individually chosen by them (Article 2.31 of the Law).

Article 2.28 of the Law defines broadcasting as the transmission of sounds, or images and sounds, or of representations thereof by wireless means, including by satellite, for public reception. The transmission of encoded signals is considered to be transmission, if a broadcasting organisation provides the society with special decoding devices, or grants permission to acquire them. Retransmission means simultaneous, unaltered and unabridged retransmission by a cable or a microwave system for reception by the public of an initial transmission, by wire or over the air, including that by satellite, of radio and/or television programmes intended for reception by the public (Article 2.15 of the Law).

2.4.2 Moral Rights

Following the concept of *droit d'auteur*, the Lithuanian Copyright Law treats the moral rights of the author as individual primary initial rights. Moral rights cannot be transferred to other persons, inherited or waived. Moral rights shall be protected for an unlimited period of time. Upon the death of the author, the protection of his/her moral rights can be exercised in several ways: the author is entitled to designate a person to whom he/she entrusts the protection of his/her moral rights and the latter will get such powers; in the absence of such instructions, the author's moral rights shall be protected by his/her heirs; in the absence of any heirs, as well as after the expiry of the author's property rights, the protection of the author's moral rights shall be executed by the national Ministry of Culture.

The Law provides for a so-called 'minimum' of moral rights as set out in Article 6bis of the Berne Convention. Article 14.1(1)(2)(3) of the Copyright Law provides for three moral rights: (1) the right to claim authorship of the work; (2) the right to claim the author's name, and (3) the right to the inviolability of a work.

Article 14.1(3) of the Copyright Law protects the integrity of a work by recognising the inviolability of the content and form of the work. The right to the inviolability of a work means the right to object to any distortion or other modification of a work or the title thereof, as well as to any derogatory action in relation thereto which would be prejudicial to the author's honour or reputation. In one case, the Supreme Court of Lithuania held that the right to the inviolability of the work cannot be treated in isolation because a creative work is a process of spiritual experience that pertains to very sensitive feelings and experiences of the author, his or her thoughts, and that certain alterations, distortions, although minor by their extent if considered from a formal perspective, might be painful to the author and perceived by him or her as disrespectful to his or her work, and, consequently, also to the author's personality.¹¹

Although the Copyright Law does not contain any direct reference to the right of access as a specific individual moral right, it contains some provisions that enable authors to do so in case of specific works. Articles 18.1 and 18.2 lay down that the owner of an original work of fine art must permit the author of the work to reproduce or display the work at his/her exhibition if the author's right to reproduce the work or to publicly display it has not been transferred to the owner of the original work, provided that the owner's legitimate interests are not thereby prejudiced and the safety of the work is ensured (one may not destroy the work before offering it back to the author). Where the return of the original work is not possible, conditions must be created for the author to make a copy of the work in an appropriate manner. Articles 18.3 and 18.5 of the Copyright Law provide that the person commissioning a work of architecture must permit the author of the work, without additional remuneration, to participate in the realisation of the construction plan of a

¹¹ See Decision of the Supreme Court of Lithuania of 19 February 2003, civil case No. 3k-3-273/2003, J. Jakstas v. UAB „Musugaires“, category 78.

building or other construction works (monitoring the drafting of the construction documentation and the execution of the construction of a building or other construction works with regard to copyright protection), unless otherwise provided for in the copyright agreement. The author of the work of architecture shall have the right to take photographs of the building or construction works before its demolition, and to get a copy of the design thereof.

2.4.3 Limitation of Rights

The regulation of authors' economic rights and related rights rests on two core principles: the 'Three-Step-Test'¹² and *numerus clausus* rules. A list of limitations of economic rights is in line with the conditions of the Berne Convention and the EC Information Society Directive, namely its Article 5. Thus, the limitations could be classified as limitations for the purpose of: (1) reproduction for a private use; (2) providing information and making reports; (3) teaching or scientific research, or (4) for any other purpose (e.g., quoting, temporary reproduction related to a technological process).

2.5 Collective Rights Management

Collective rights management in Lithuania is regulated in great detail. Bearing in mind the Lithuanian market and territory size, the current number of collective management associations is considered to be optimal. The state thoroughly oversees the activity of collective management organisations after their establishment. In addition, a right holder has a choice to opt for either collective or individual rights management.

Pursuant to Article 66 of the Copyright Law, Collective Management Organisations (hereafter referred to as CMOs) are non-profit organisations, established on the basis of a voluntary membership of owners of copyright and related rights, or their unions. They are not entitled to engage in commercial activities with profit purposes. They must adopt the legal form of an association and be registered with the Lithuanian Register of Legal Entities (the procedure of their establishment is governed by the Law on Associations of the Republic of Lithuania).

Regulation does not indicate any special authorisation for establishing a CMO, nor do they limit the number of CMOs entitled to engage in the collective management of copyright and related rights. However, at present there are several CMOs that only differ among themselves by the rights they defend. For example, there is one CMO for the collective management of the economic rights of authors, one for the collective management of related rights of performers and phonograms producers, and one for the collective management of authors of audiovisual works. In total currently there are four established and operating CMOs in Lithuania:¹³

1. The Lithuanian Copyright Protection Association (*Lietuvos autorių teisių gynimo asociacijos agentūra*, LATGA-A) administers copyright; www.latga.lt
2. The Lithuanian Related Rights Association (*Lietuvos gretutinių teisių agentūra*, AGATA) administers related rights of performers and phonogram producers; www.agata.lt
3. The Association of Copyright in Audiovisual Works (*Lietuvos audiovizualinių kūrinių autorių asociacija*, AVAKA) administers copyright of authors' of audiovisual works. This Association was established in 2008 but is not fully operational yet; www.avaka.lt
4. The Association on Rights Protection of Audiovisual Works Authors' and Related Rights Owners (AGICOA Europe (Baltic)). The Association was established in April 2011.
5. The Music Copyright Association (*Muzikos autorių teisių asociacija*, NATA) administers music copyright. This Association was established in March 2012.

The Lithuanian Copyright Protection Association (LATGA-A), which administers copyright in Lithuania, has become an important organisation in Lithuania, forming international partnerships. Already in 1992 LATGA-A had become a member of CISAC (the International Confederation of Authors and Composers). That same year, the first bilateral representation agreements were signed with foreign CMOs. In 1994, LATGA-A entered into an agreement with the NCB (Nordisk Copyright Bureau) concerning recording rights administration.¹⁴

¹²See Article 9.2 of the Berne Convention, Article 13 of the TRIPS, Article 10 of the WIPO Copyright Treaty, Article 16 of the WIPO Performances and Phonograms Treaty, and Article 5.5 of the Directive 2001/29/EC of the European Parliament and of the Council of May 22 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.

¹³Processes are taking place for the establishment of the division of the Nordisk Copyright Bureau and a new agency 'NATA'.

¹⁴However, the NCB is establishing its own office (see previous footnote).

The Lithuanian Related Rights Association (AGATA) administers the related rights of performers and phonogram producers. The association was founded in 1999 and currently has about 3,000 members. Since the establishment of the Association, one of main goals of the association has been the international protection of Lithuanian performers and phonogram producers' rights, as well as protection of international performers and producers' rights in Lithuania. Therefore, in 2002, AGATA became a member of the Association of European Performers' Organisations (AEPO-ARTIS) and a member of The Societies' Council for the Collective Management of Performers' Rights (SCAPR). Additionally, AGATA has signed co-operation agreements with most of the collective management associations of the 1961 Rome Convention members (22 countries in total, including Germany, France, Spain, Sweden, etc.).

The general legal framework for collective administration of rights is established in Articles 65–72 of the Copyright Law. It covers, in particular, rules on supervision, the relationship among CMOs and right owners, as well as between CMOs and users. Articles 65.2 and 65.3 of the Copyright Law establish mandatory collective management in the case of the following rights:

- Cable retransmission of works and objects of related rights, except own programmes of cable retransmission operators
- Broadcasting, retransmission or other communication to the public of phonograms published for commercial advantage (including background music), in favour of performers and phonogram producers
- Remuneration of authors and performers for rental of audiovisual works and phonograms
- Reproduction on paper of works by means of reprography (effected by the use of any kind of photographic technique or by some other process having similar effects)
- Reproduction for a private use of audiovisual works or works fixed in phonograms.

The CMOs are entitled to defend the rights they administer without any special authorisation from courts or other institutions. Their activities in Lithuania are also subject to provisions of other legal acts, in particular, the prohibition of abuse of a dominant position, as provided for by the Law on Competition of the Republic of Lithuania. A more detail case study of AGATA shows the results of these activities.

Case Study

AGATA – Lietuvosgretutinių teisių agentūra (Lithuanian Related Rights Association)

Year of establishment – 1999

Number of members – 3,225 (as at 8/8/2011):

- Performers – 3127
- Producers of phonograms – 106
- Producers of audiovisual work – 39
- Similar organisations from other countries – 28

Main activities that are represented include reproduction, and broadcasting and public performance of sound recordings

Number of licence agreements (presently enforced) – 4,577 (as at 8/8/2011)

Average annual number of licence agreements – 700

Average annual collection of remuneration – 3.96 million Litass (Lithuanian currency – LTL)

Collection of remuneration (LTL million)

	2005	2006	2007	2008	2009	2010
Public Performance	1,029	1,482	1,801	2,075	2,165	2,46
Broadcasting:	1,292	1,520	1,891	2,214	1,552	1,546
Radio	0,403	0,460	0,562	0,653	0,473	0,046
TV	0,867	1,045	1,315	1,543	1,065	1,063
Cable TV	0,005	0,005	0,007	0,007	0,004	0,003
Internet	0,017	0,009	0,008	0,011	0,011	0,015
Retransmission	0,094	0,201	0,333	0,486	0,711	0,896
Total	2,415	3,203	4,024	4,776	4,428	4,902

Source: AGATA

Other associations are more industry-oriented, such as the Lithuanian Cable Television Association, the Lithuanian Publishers Association, the Cinema Industry Association, etc.

Supervision of Collective Management Organisations

Activities of CMOs are supervised by the Lithuanian Ministry of Culture which is responsible for state policy in the field of copyright and related rights (Article 71.3 of the Copyright Law). All CMOs are obliged to submit, having started their activities, the following documents to the Ministry of Culture (Article 71.3(1) of the Copyright Law):

- Copies of their statutes and rules on the collection and distribution of the remuneration, as well as any amendments thereof
- Copies of all bilateral and multilateral agreements concerning the administration of rights of foreign owners of copyright and related rights (upon request)
- Copies of the resolutions of a general meeting (conference) of members of a CMO
- Data concerning the governing bodies of CMOs and their members.

In addition, the Ministry of Culture is entitled to obtain from a CMO other information necessary to determine whether the activities of the respective CMO conform to the provisions of the law and to the statutes of the CMO (the Ministry of Culture is authorised to obtain certain information by Article 71.2(1) of the Copyright Law). The Ministry may demand information on financial documents of the previous year that were approved in a general meeting of the CMO members, and obtain further explanations of the data within the documents; information concerning court proceedings where the CMO is a party; information on authors' remuneration actually collected by CMOs, and information on the distribution of such remunerations. Representatives of the Ministry of Culture may also take part (without voting rights) in general meetings (conferences) of CMO members as well as in meetings of the governing body. If it is revealed that the activities of a CMO do not conform to the legal requirements or statutes, the Ministry of Culture may request the participants of the collective administration association to resolve the issue concerning the suitability of the governing bodies to carry out the duties assigned to them and, if necessary, the said institution may take other measures provided for in law to ensure adequate activities of the collective administration associations.

The Council of Copyright and Related Rights of Lithuania is a public institution which, as an expert and a consultant, investigates issues related to the implementation of the provisions of this Law and international obligations of the Republic of Lithuania in the field of copyright and related rights and delivers conclusions and proposals to the institution authorised by the Government. Members of the Council are appointed by an institution authorised by the Government, in compliance with the principles of equal representation of holders, users of copyright and related rights and independent members. Members of the Council may be academics and other specialists in copyright and related rights. The Council acts as a mediator in disputes between CMOs and users of copyright and related rights.

3. Economic Contribution of the Copyright Industry

This Part analyses the economic contribution of copyright and related rights-based industries in Lithuania. Value added generated by copyright and related rights-based industries, their contribution to employment generation and foreign trade in Lithuania are discussed in detail. Comparing value added and employment shares enables an investigation into the productivity development patterns of the Lithuanian creative industry. At the end of this Part, the three most economically significant core copyright industries are analysed: Press and Literature, Software and Databases, and Advertising Services.

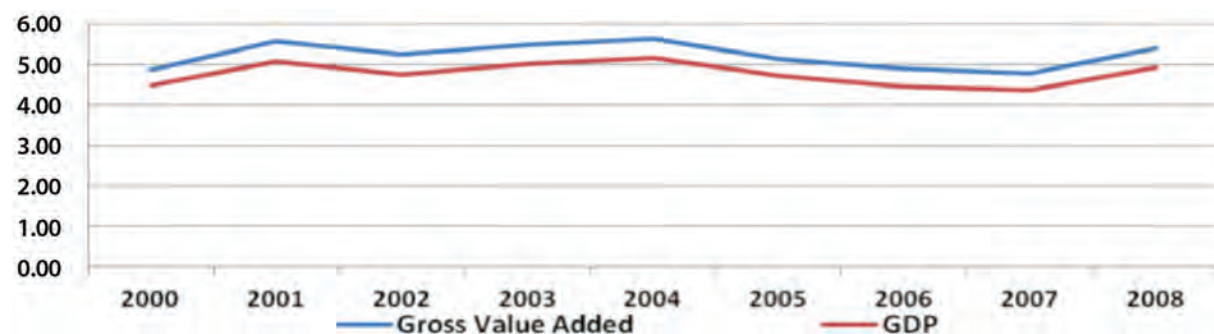
3.1 Value Added of the Copyright Industry

Consistently applying WIPO guidelines for the first time, this study of the Lithuanian copyright industry presents value added, employment and the foreign trade contributions of the copyright industry to the national economy over the period 2000–2008. Covering all the years over a business cycle is still a relatively unique feature of copyright industry studies in the context of other country studies commissioned by WIPO in the last decade. To achieve this, the US has invested significant efforts into conducting separate studies every year, which has proved to be rather costly. By offering consistent time series for nine years, this study provides a clear picture of how the Lithuanian copyright economy has evolved over a nearly complete business cycle, where 1999 and 2009 were the deepest economic recession points. The importance of these results is heightened by the fact that the Lithuanian copyright industry has never been closely studied on any earlier occasion. This section presents the economic results without touching upon statistical matters of the analysis.

3.1.1 Overview of Copyright Industry Development

A detailed statistical analysis of the value added of copyright-related economic activities shows that the Lithuanian copyright industry comprised 5.40 percent of the gross value added (GVA) in 2008, while compared to the gross domestic product (GDP) it made up 4.93 percent. The difference between these two measures is explained by the fact that gross value added does not include net taxes on products and value added tax (VAT). Both net taxes and VAT largely cannot be attributed to economic activities; thus, a share of the copyright industry is smaller in terms of GDP than in terms of GVA.¹⁵ This research is based on the GVA measure that is used throughout the study. In fact, according to the emerging consensus among researchers in economic copyright matters, GVA is a far better measure. Nevertheless, due to country comparability reasons, the aggregates are provided in GDP percentages as well. Figure 1 below shows that both measures are moving largely in parallel and differences are of the same scale each year.

Figure 1: Copyright Industry Contribution to GVA and GDP, %



Source: calculated by the authors¹⁶

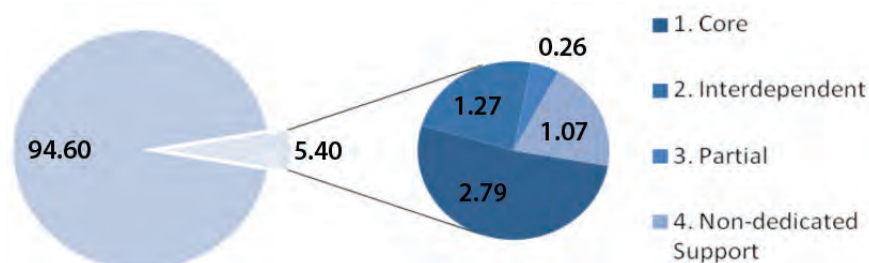
On the basis of the detailed analysis of the value added of economic activities, it was established that, in 2008, the Lithuanian copyright industry comprised 5.40 percent of the gross value added. The most

¹⁵For more detail on the differences between GVA and GDP contribution see Annex 1.

¹⁶From this point on, if calculations for figures and tables are made by authors, the reference is omitted.

significant copyright contribution to the economy is made by core copyright activities.¹⁷ More than half of it, 2.79 percent, comprised the core copyright industry. The interdependent copyright industry, which is the most closely related to the core copyright industry, made up 1.27 percent of the national economy. The partial copyright industry created 0.26 percent of the value added in the economy. Finally, the part of the economy which serves the copyright industry and which is traditionally classified as non-dedicated support industry comprised 1.07 percent of the value added. The structure of the economic contribution to the Lithuanian economy is presented in Figure 2 below.

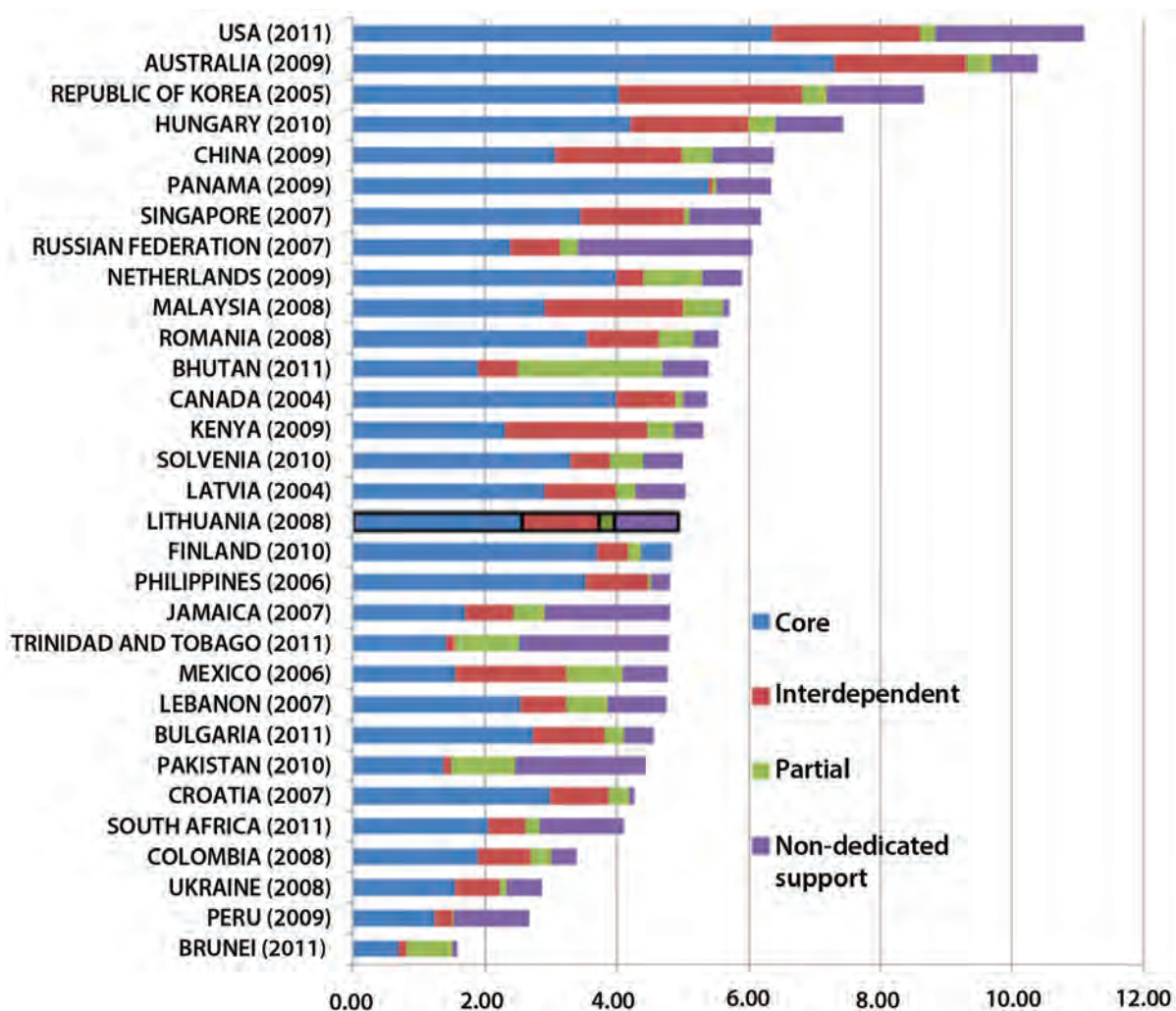
Figure 2: Contribution of the Copyright Industry to GVA in 2008, %



The findings allow mapping of the Lithuanian position of copyright industry against the international picture by comparing the economic size of the copyright industry with other countries for which a similar statistical research has been conducted. As presented in Figure 3 below, the Lithuanian copyright industry is slightly smaller than a corresponding part of the economy in neighbouring Latvia and slightly larger than the copyright industry in Finland. An international comparison demonstrates a relatively advanced stage of the Lithuanian copyright economy, which also corresponds to the well-developed legal regulation of the copyright activities.

¹⁷All four subcategories of the copyright industry are defined and explained in the next section.

Figure 3: Contribution of Copyright Industries to GDP, %

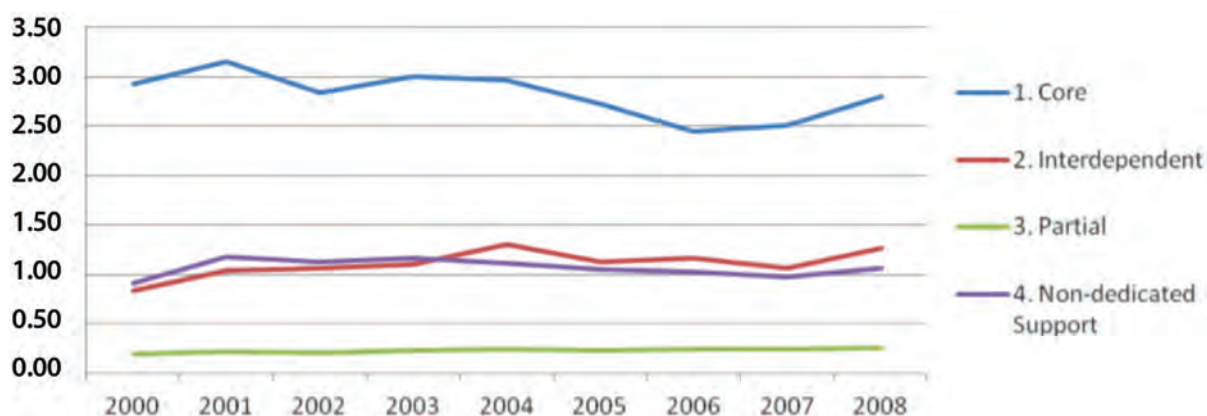


Source: WIPO

All in all, Figure 3 demonstrates the relatively advanced stage of the Lithuanian copyright economy. It is important to observe that countries throughout the world are very diverse in the size and structure of the copyright industry, and the above ranking was carried out according to the overall numbers of value added at market prices. With more than 30 completed copyright studies, it is possible to compare the Lithuanian copyright industry with other countries, according to other features of interest.

The development of the four types of copyright industry shows quite a smooth development over the decade. Although the core copyright activities dominated in terms of economic contribution, its overall contribution to the economy was slowly contracting. It seems that the major reason for this development was the overheating of the economy during 2005–2007 when the economy was rapidly growing in the range of 7.8 to 9.8 percent each year. The unsustainable and disproportionate growth of the real estate sector and related industries caused the share of the copyright industry to shrink in the economy. The partial copyright activities slightly contracted over the decade as well, while interdependent and non-dedicated support industries gained slightly in economic share. This is evident from Figure 4 and Table 1 below.

Figure 4: Copyright Industry Value Added by Industry Type, %



Different sections of the copyright industry were peaking at different stages of the economic cycle. The joint contribution of the core, interdependent, partial and non-dedicated support copyright industries was the largest in 2004, providing 5.62 percent contribution to GVA. It is worth mentioning that 2001 was the second year in which the economic recovery was gathering pace after a very severe recession in 1999. In 2001, the core copyright industry created the largest share of GVA, 3.15 percent. In contrast, the interdependent activities peaked three years later, when it provided 1.30 percent contribution to GVA in 2004. Furthermore, in 2004, it overtook non-dedicated support activities and has created more value added ever since. The detailed data on these developments are presented in Table 1.

Table 1: Copyright Industry Value Added by Industry Type, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	2.92	3.15	2.84	3.00	2.96	2.73	2.45	2.51	2.79
2. Interdependent	0.84	1.04	1.06	1.10	1.30	1.13	1.17	1.06	1.27
3. Partial	0.19	0.21	0.21	0.23	0.24	0.23	0.25	0.24	0.26
4. Non-dedicated Support	0.92	1.18	1.13	1.17	1.12	1.06	1.03	0.97	1.07
Total	4.87	5.58	5.24	5.50	5.62	5.15	4.89	4.79	5.40

Although a comparison of the contribution shares might indicate that the copyright industry was often contracting, it was always growing in nominal terms, with only one exception, in 2002. Table 2 proves that 2002 was the only year of nominal contraction.

Table 2: Copyright Industry Value Added by Industry Type, LTL million

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1,144	1,334	1,227	1,467	1,596	1,726	1,802	2,219	2,792
2. Interdependent	328	442	459	539	701	714	860	941	1,267
3. Partial	75	91	89	112	128	149	182	214	260
4. Non-dedicated Support	360	498	488	570	604	670	755	859	1,071
Total	1,907	2,364	2,264	2,688	3,029	3,259	3,598	4,235	5,390

Even though this study relies on the concept of gross value added stemming from national accounts, the other closely related concept of GDP has often been used in many previous copyright studies. For the purpose of comparability, it is important to look at how other copyright industries compare to the Lithuanian sector in terms of GDP. The shares in GDP are somewhat lower, primarily because GDP includes net taxes on products and VAT, which largely cannot be attributed to specific economic activities. As the nominator increases less than denominator, the resulting shares for GDP decrease. Figure 1, comparing the GDP and GVA shares of

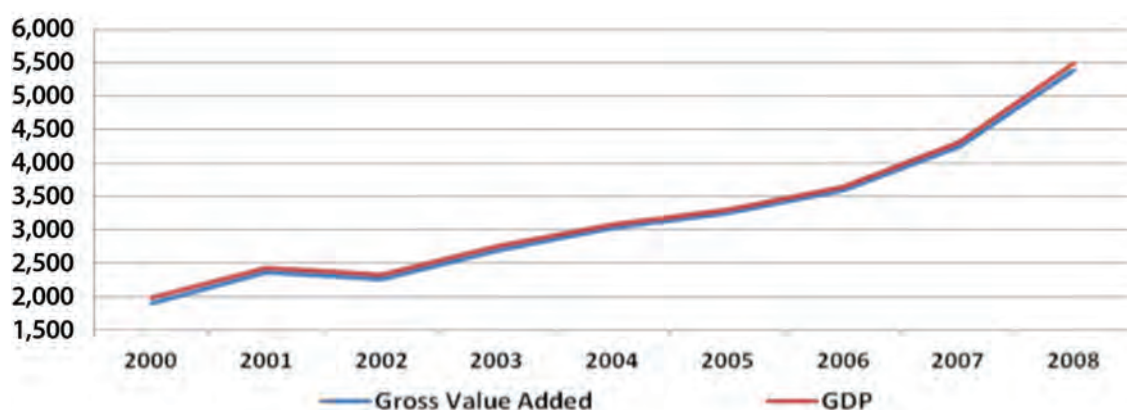
the copyright industry, was presented at the beginning of this section. In other terms, the GVA shares have to deal with basic prices, while GDP shares have to work with market prices. Table 3 provides the exact shares of the copyright industry with regard to GDP throughout the reporting period.

Table 3: Copyright Industry's GDP share by Industry Type, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	2.70	2.85	2.55	2.73	2.70	2.49	2.23	2.29	2.55
2. Interdependent	0.77	0.95	0.97	1.02	1.20	1.04	1.08	0.98	1.16
3. Partial	0.17	0.19	0.18	0.21	0.22	0.21	0.22	0.22	0.24
4. Non-dedicated Support	0.84	1.08	1.03	1.07	1.04	0.98	0.94	0.89	0.98
Total	4.49	5.08	4.74	5.03	5.16	4.71	4.47	4.37	4.93

Looking at absolute values in LTL, it is even more evident that both GDP and GVA shares are very closely related. The following chart illustrates this parallel movement. In a way, this confirms that it is sufficient to deal with one concept which, in our study, is GVA.

Figure 5: Copyright Industry Contribution to GVA and GDP, LTL million



For completeness of future comparisons on GDP basis, Table 4 below presents the value added of the copyright industry at market prices compared with GDP.

Table 4: Copyright Industry Contribution to GDP by Industry Type, LTL million

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1,194.8	1,361.5	1,251.3	1,499.4	1,616.8	1,745.7	1,820.9	2,254.7	2,846.1
2. Interdependent	339.5	455.1	475.8	558.2	720.7	729.7	878.3	962.5	1,294.7
3. Partial	76.2	92.0	90.5	112.9	129.4	149.6	182.8	215.6	262.0
4. Non-dedicated Support	372.4	514.4	505.0	589.0	621.2	685.1	768.9	877.0	1,093.8
Total	1,982.9	2,422.9	2,322.6	2,759.5	3,087.9	3,310.2	3,650.9	4,309.7	5,496.6

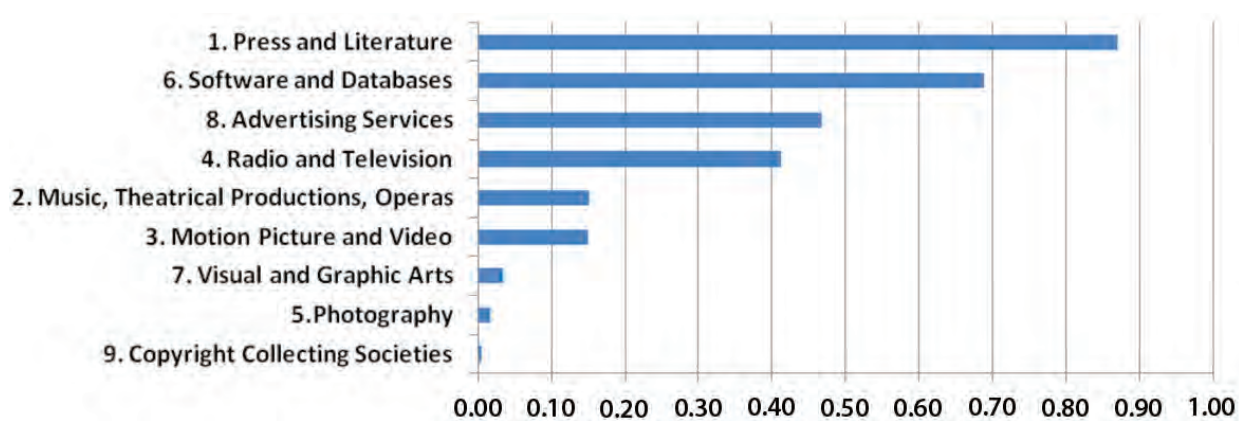
3.1.2 Value Added Structure in Each Copyright Industry Type

Core Copyright Industry

Core copyright industries are industries that are fully engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and any other protected subject matter. The core copyright industry is subdivided into nine separate activities.

The examination of the core copyright industry in 2008, shown in Figure 6, reveals that the dominant industry was Press and Literature, with Software and Databases being fairly closely in second place. The third industry by importance was Advertising Services, while Radio and Television ended in the fourth place. Each of the other five subcategories created 0.15 percent or less of gross value added.

Figure 6: Core Copyright Industry Contribution to Gross Value Added in 2008, %



The dynamics over the decade of the specific core copyright economic activities was vastly different. Press and Literature lost more than a third of its economic contribution, while Software and Databases' economic importance grew more than twofold. If the current trend persists, it is very likely that Software and Databases will overtake Press and Literature in a few years. Although, at the beginning of the decade, Advertising Services was approximately the same size as Software and Databases, the 50 percent increase in the economic share of Advertising Services was still too low to keep pace with Software and Databases; the advertising industry was left far behind the software industry in 2008. The economic share of Visual and Graphic Arts was fairly stable over the decade, while the share of Photography contracted twofold.

Table 5: Core Copyright Industry Contribution to Gross Value Added, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Press and Literature	1.48	1.46	1.06	1.27	1.28	1.09	1.03	0.90	0.87
2. Music, Theatrical Productions, Operas	0.07	0.09	0.06	0.07	0.09	0.11	0.08	0.09	0.15
3. Motion Picture and Video	0.24	0.21	0.19	0.18	0.14	0.11	0.09	0.10	0.15
4. Radio and Television	0.43	0.47	0.60	0.42	0.38	0.37	0.20	0.25	0.41
5. Photography	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.02
6. Software and Databases	0.32	0.58	0.48	0.52	0.56	0.58	0.54	0.64	0.69
7. Visual and Graphic Arts	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.02	0.03
8. Advertising Services	0.31	0.27	0.35	0.45	0.43	0.41	0.45	0.47	0.47
9. Copyright Collecting Societies	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Core Copyright Industry	2.92	3.15	2.84	3.00	2.96	2.73	2.45	2.51	2.79

Looking at the nominal values of the core copyright industry, it is evident that there were not many contractions in subcategories measured at basic prices, while the growth looks far more impressive. In nominal terms, even Photography, which contracted the most, was virtually flat, if 2000 and 2008 are compared. Accounting in LTL, the growth of Software and Databases looks even more impressive. In addition, tables with data in LTL million allow looking beyond rounded economic contribution shares. The data collected on Copyright Collecting Societies is a good example of usefulness of the data in LTL million. In this study, as a rule, measurements are provided both in percentages and in LTL million.

Table 6: Value Added of Core Copyright Industry, LTL million

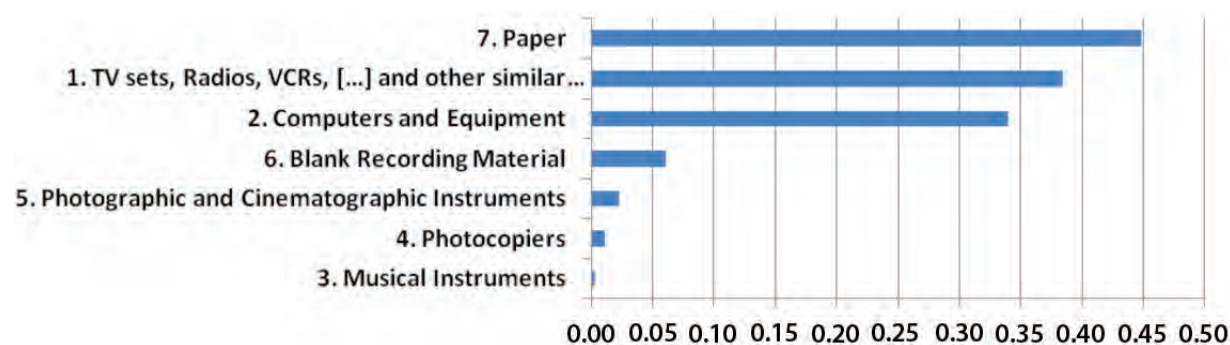
Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Press and Literature	578.9	619.5	460.1	622.6	689.6	687.4	760.7	800.0	869.5
2. Music, Theatrical Productions, Operas	29.0	36.0	25.7	34.0	46.3	67.1	62.0	82.2	150.8
3. Motion Picture and Video	92.7	88.1	83.9	89.0	78.1	67.7	68.9	87.2	149.8
4. Radio and Television	167.4	197.0	257.5	207.0	202.2	236.2	143.8	224.3	411.7
5. Photography	17.6	16.7	16.7	21.4	21.6	19.5	16.8	17.1	17.5
6. Software and Databases	125.4	245.9	208.3	253.3	304.1	365.6	399.9	565.2	687.4
7. Visual and Graphic Arts	11.0	13.3	17.6	16.6	17.5	20.2	17.4	21.8	33.4
8. Advertising Services	120.0	113.7	151.7	219.9	232.9	258.3	328.2	417.3	466.7
9. Copyright Collecting Societies	2.2	3.4	5.3	3.2	3.5	4.1	4.0	4.3	4.8
Core Copyright Industry	1,144	1,334	1,227	1,467	1,596	1,726	1,802	2,219	2,792

Interdependent Copyright Industry

Interdependent copyright industries are industries that are engaged in the production, manufacturing and sales of equipment, the only or primary function of which is to facilitate the creation, production or use of works and any other protected subject matter. The interdependent copyright industry is subdivided into seven activities.

There are three interdependent copyright industries, relatively large in size. Paper, TV Sets *et al*, and Computers and Equipment contribute between 0.3 and 0.45 percent each. While the economic contribution of Blank Recording Material, and Photographic and Cinematographic Instruments was still economically significant, the contribution numbers for Musical Instruments were not significant.

Figure 7: Interdependent Copyright Industry Contribution to Gross Value Added in 2008, %



The growth trend of Paper confirms that the more computers there are on the market, the more paper the economy needs to serve them. The paper industry has grown more than twice in terms of economic contribution and took over first place from TV Sets *et al*. Interestingly, Paper grew faster than Computers and Equipment. Photographic and Cinematographic Instruments kept its share over the decade. Table 7 below depicts the evolution of shares to the gross value added of all interdependent copyright industry subgroups.

Table 7: Interdependent Copyright Industry Contribution to Gross Value Added, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. TV Sets, Radios, VCRs, [...] and other similar equipment	0.45	0.50	0.57	0.51	0.54	0.47	0.50	0.44	0.38
2. Computers and Equipment	0.17	0.21	0.22	0.21	0.32	0.25	0.30	0.29	0.34
3. Musical Instruments	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
4. Photocopiers	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01
5. Photographic and Cinematographic Instruments	0.02	0.10	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6. Blank Recording Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06
7. Paper	0.19	0.22	0.24	0.35	0.41	0.37	0.35	0.29	0.45
Interdependent Copyright Industry	0.84	1.04	1.06	1.10	1.30	1.13	1.17	1.06	1.27

As in many other rapidly growing economies with some inflation, the numbers in nominal terms appear more optimistic than those which reflect a structural composition. For the sake of completeness, the nominal numbers for the interdependent copyright industry are presented in Table 8 below.

Table 8: Value Added of Interdependent Copyright Industry, LTL million

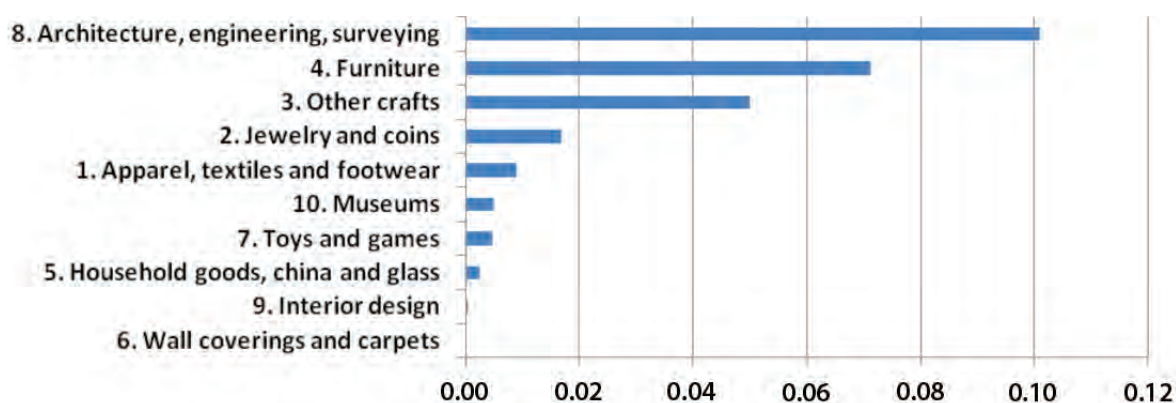
Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. TV Sets, Radios, VCRs, [...] and other similar equipment	174.8	213.8	244.6	248.3	289.8	300.3	364.9	387.0	384.1
2. Computers and Equipment	67.3	89.6	93.1	104.8	169.8	160.0	217.2	255.2	339.8
3. Musical Instruments	2.0	2.7	3.2	2.2	2.2	4.6	2.8	3.9	2.4
4. Photocopiers	1.7	2.2	2.1	2.7	3.1	2.5	2.8	5.3	10.8
5. Photographic and Cinematographic Instruments	8.8	41.5	10.7	10.8	13.2	13.8	15.9	20.0	22.2
6. Blank Recording Material	0.0	0.0	0.0	0.0	0.0	0.1	0.4	12.2	60.2
7. Paper	73.3	91.8	105.5	170.5	223.4	232.5	256.4	257.9	447.8
Interdependent Copyright Industry	328.0	441.7	459.2	539.3	701.5	713.8	860.5	941.5	1,267.4

Partial Copyright Industry

Partial copyright industries are industries where 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. They are divided into ten separate activities.

Partial copyright activities created 0.26 percent of the country's gross value added in 2008. Lithuanian partial copyright activities were largely dominated by three groups: Architecture, Engineering, Surveying, Furniture and Other Crafts. The first group created 0.10 percent of GVA, the second 0.07 percent and the third 0.05 percent respectively. Jewellery and Coins, which ranked in fourth place, reached 0.02 percent share by 2008. All other minor activities had shares equal or less than 0.01 percent of GVA.

Figure 8: Figure 8. Partial Copyright Industry Contribution to Gross Value Added in 2008, %



The partial copyright industry increased its share from 0.19 percent in 2000 to 0.26 percent in 2008 relatively smoothly in the country's gross value added over the interval analysed. The sector experienced only two minor contractions in its share, during 2005 and 2007. Architecture, Engineering, Surveying, even though it was the largest group, developed at a rather flat rate (the sector grew at the same rate as the rest of the economy) by starting and ending developments with 0.10 percent share. Furniture throughout the period was rapidly catching up with the first group and managed to close half of the gap by moving from 0.04 to 0.07 percent share of GVA. Other Crafts exhibited an even larger jump, augmenting its share. Jewellery and Coins grew several times during the same period, although from a very low base.

Table 9: Partial Copyright Industry Contribution to Gross Value Added, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Apparel, Textiles and Footwear	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
2. Jewellery and Coins	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02
3. Other Crafts	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.05
4. Furniture	0.04	0.05	0.06	0.06	0.08	0.07	0.08	0.07	0.07
5. Household Goods, China and Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Wall Coverings and Carpets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Toys and Games	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Architecture, Engineering, Surveying	0.10	0.11	0.09	0.10	0.09	0.09	0.09	0.10	0.10
9. Interior Design	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Museums	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Copyright Industry	0.19	0.21	0.21	0.23	0.24	0.23	0.25	0.24	0.26

Table 10 provides data measured in LTL million for the sake of completeness, as well as aiming to show what really hides behind the zero percentages of some contributions. The table reveals that Toys and Games grew 12 times over during the decade in nominal terms. Among many other rapid developments, the value added of museums grew more than three times over the period. Although these trends are significant and important, when aggregated, they pale behind the LTL 100.9 million of Architecture, Engineering, Surveying in 2008.

Table 10: Value Added of Partial Copyright Industry, LTL million

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Apparel, Textiles and Footwear	8.3	8.9	6.8	7.6	8.9	8.6	9.2	9.9	8.9
2. Jewellery and Coins	1.6	2.1	2.7	3.4	5.2	7.2	9.8	8.9	16.8
3. Other Crafts	6.4	8.1	9.6	14.1	19.2	25.3	30.3	33.1	49.9
4. Furniture	17.5	21.4	25.3	31.5	42.6	45.2	57.4	64.8	71.1
5. Household Goods, China and Glass	1.3	1.3	1.0	1.3	1.5	2.4	2.3	2.7	2.5
6. Wall Coverings and Carpets	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
7. Toys and Games	0.5	1.5	1.1	2.0	1.9	1.8	2.8	2.5	4.7
8. Architecture, Engineering, Surveying	37.5	44.9	40.8	49.3	46.0	54.5	66.5	88.7	100.9
9. Interior Design	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.5
10. Museums	1.6	2.1	1.5	2.1	2.4	3.1	3.0	3.1	5.0
Partial Copyright Industry	75.2	90.8	89.4	111.7	128.2	148.6	181.7	214.3	260.3

Non-dedicated Support Copyright Industry

Non-dedicated support copyright industries are industries where a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matters, and the activities of which do not fall into the category of core copyright industries. Although it is an economically large group, it is subdivided into just three subgroups.

This copyright industry group, which captures induced economic impact of the copyright, created 1.07 percent of the national annual value added in 2008. The General Transportation contribution to the national gross value added was 0.53 percent, while General Wholesale and Retailing contributed 0.43 percent. Telephony and Internet produced a much smaller contribution of 0.11 percent.

Figure 9: Non-Dedicated Support Copyright Industry Contribution to Gross Value Added in 2008, %



Looking closer at the development patterns, a clear, if not peculiar, phenomenon of the contraction of Telephony and Internet may be easily observed. The share of Telephony and Internet was contracting by a third over the decade. In contrast, both General Wholesale and Retailing, and General Transportation were expanding over the same period.

Table 11: Non-dedicated Support Copyright Industry Contribution to Gross Value Added, %

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. General Wholesale and Retailing	0.39	0.48	0.47	0.45	0.44	0.38	0.39	0.37	0.43
2. General Transportation	0.37	0.48	0.43	0.51	0.52	0.54	0.52	0.49	0.53
3. Telephony and Internet	0.16	0.22	0.23	0.21	0.16	0.13	0.12	0.11	0.11
Non-dedicated Support Copyright Industry	0.92	1.18	1.13	1.17	1.12	1.06	1.03	0.97	1.07

If the contribution is analysed in LTL million, then the growth rates, as in previous cases, are much higher. Even Telephony and Internet nearly doubled in a decade, counting in nominal terms. Technically speaking, different factors were applied for non-dedicated support copyright industries for each year. Table 12 presents estimates of the economic contribution in nominal terms.

Table 12: Value Added of Non-dedicated Support Copyright Industry, LTL million

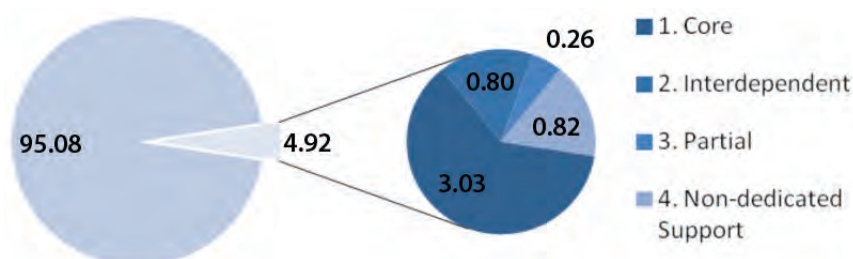
Category	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. General Wholesale and Retailing	154.0	201.4	204.2	221.7	235.9	243.0	283.7	323.7	428.8
2. General Transportation	143.1	203.7	186.0	247.1	281.0	343.3	380.8	437.4	529.1
3. Telephony and Internet	62.6	93.0	98.2	101.0	86.9	83.9	90.1	98.4	112.9
Non-dedicated Support Copyright Industry	359.7	498.1	488.4	569.8	603.7	670.2	754.5	859.5	1,070.8

3.2 Employment in the Copyright Industry

3.2.3 General Employment Trends

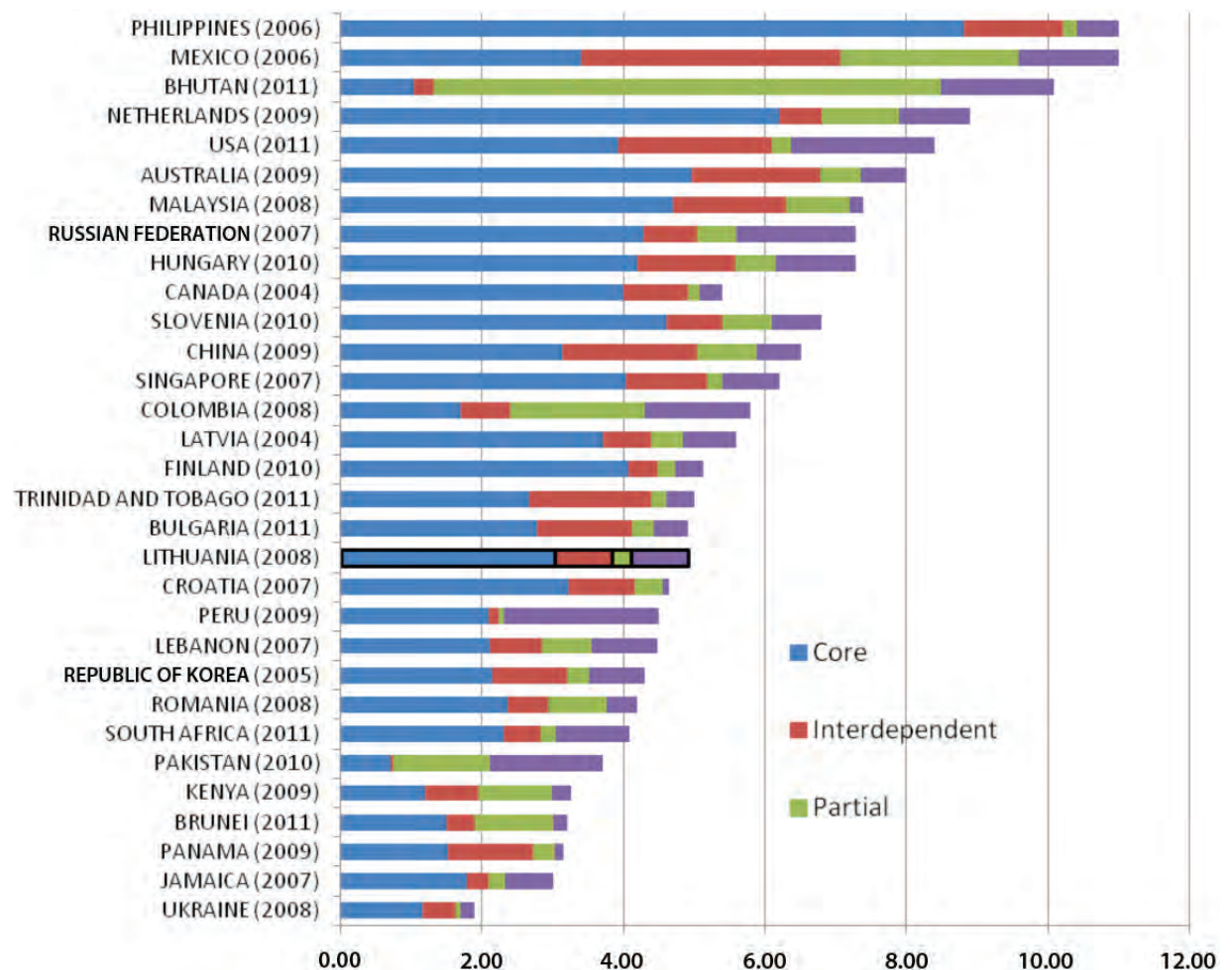
The copyright industry generated less employment than value added for the Lithuanian economy. In 2008, employment in the Lithuanian copyright industry comprised 4.92 percent of the total employment. Moreover, more than half of it, 3.03 percent, was generated by the core copyright industry. The interdependent copyright industry made up 0.80 percent, while the partial copyright industry created 0.26 percent of overall employment. Finally, the non-dedicated support copyright industry comprised 0.82 percent of the overall employment. The employment structure with regard to the Lithuanian copyright industry is shown in Figure 10.

Figure 10: Employment by Copyright Industry in Lithuania in 2008, %



The international comparison shows that, due to differences in productivity across different countries, the Lithuanian copyright economy ranks lower in terms of the employment measure. It generates less employment than in Latvia and Finland, to which Lithuania is ranked very closely in terms of the value added contribution. Nonetheless, Lithuania falls between Bulgaria and Croatia. In fact, the lower ranking means that the copyright industry is relatively productive. Figure 11 below compares employment in the Lithuanian copyright industry with other countries.

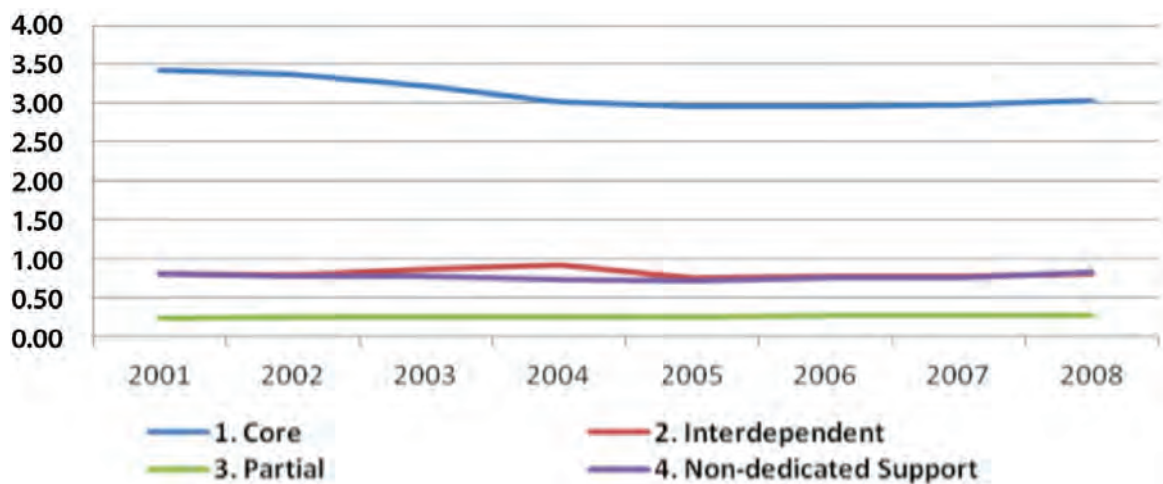
Figure 11: Contribution of Copyright Industries to Employment, %



Source: WIPO

In general, the dynamics of employment over the years is far smoother than corresponding developments of gross value added for the copyright industry. Figure 12 shows that employment in the core copyright industry steadily declined until 2005, but was extremely stable afterwards, as if some medium-term equilibrium was achieved, with some small rebound at the end of the decade. Similarly, the other parts of the copyright industry were far flatter in terms of employment than in terms of value added.

Figure 12: Copyright Industry Employment by Industry Type, %



Similarly to the core copyright industry, the interdependent copyright industry also hit bottom in 2005. That year, the contribution of employment in the interdependent copyright industry made up 0.75 percent, but it recovered afterwards. Similarly, the partial copyright industry had a local minimum in 2005. Not surprisingly, the same pattern is observed for employment in non-dedicated support copyright industries.

Table 13: Copyright Industry Employment by Industry Type, %

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	3.43	3.36	3.21	3.01	2.96	2.97	2.97	3.03
2. Interdependent	0.81	0.78	0.86	0.92	0.75	0.77	0.78	0.80
3. Partial	0.23	0.24	0.26	0.25	0.25	0.26	0.27	0.26
4. Non-dedicated Support	0.81	0.78	0.77	0.73	0.72	0.75	0.76	0.82
Total	5.29	5.17	5.10	4.92	4.68	4.75	4.78	4.92

Table 14 below provides employment figures of the copyright industry in full time equivalent terms for the Lithuanian economy. It is important to observe that employment in the copyright industry grew from 53.2 thousand to 57.4 thousand. Bearing in mind that the workforce in Lithuania was contracting during the reporting period, it shows that its importance to employment was growing.

Table 14: Copyright Industry Employment by Industry Type, full time units

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	34,502	34,455	33,468	31,533	31,976	33,257	34,594	35,402
2. Interdependent	8,183	8,007	8,963	9,671	8,045	8,675	9,057	9,334
3. Partial	2,354	2,507	2,677	2,597	2,701	2,940	3,087	3,067
4. Non-dedicated Support	8,145	7,971	8,008	7,661	7,739	8,370	8,843	9,552
Total copyright industry	53,185	52,941	53,116	51,461	50,461	53,243	55,581	57,354
Total national employment*	1,005,716	1,024,217	1,042,231	1,046,756	1,078,898	1,121,463	1,163,678	1,166,651

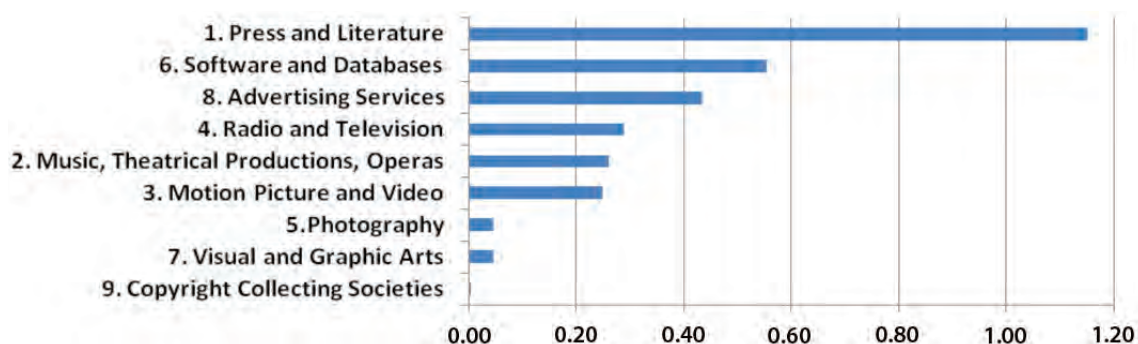
* The statistics of national accounts show that total national employment grew 16 percent from 2001 to 2008. By contrast, it should be noted that the population in Lithuania has shrunk several percentage points over the same period.

3.2.4 Employment of Separate Copyright Industries

Core Copyright Industry

Starting with the core copyright industry, it is obvious that, if Press and Literature was not far ahead of Software and Databases in terms of its economic contribution, it was still two times more important in terms of employment at the end of the reporting period. This is explained by much higher productivity in the Software and Databases industry. Because of productivity reasons, Photography and Visual and Graphic Arts have different national employment rankings when compared to their value added rankings, while other economic activities have the same ranking in employment as in their contribution to GVA.

Figure 13: Core Copyright Industry Contribution to Employment in 2008, %



The tables below provide complete data for the core copyright industry for every constituent. Measuring the contribution of employment, four groups of the core copyright industry showed a clear contraction trend, three were growing, while Visual and Graphic Arts and Copyright Collecting Societies were rather flat.

Table 15: Core Copyright Industry Contribution to Employment, %

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Press and Literature	1.34	1.29	1.25	1.22	1.16	1.14	1.14	1.15
2. Music, Theatrical Productions, Operas	0.23	0.23	0.23	0.23	0.26	0.27	0.28	0.26
3. Motion Picture and Video	0.59	0.53	0.41	0.25	0.26	0.24	0.23	0.25
4. Radio and Television	0.59	0.53	0.43	0.35	0.33	0.31	0.29	0.29
5. Photography	0.09	0.09	0.09	0.07	0.07	0.06	0.05	0.05
6. Software and Databases	0.27	0.31	0.36	0.43	0.42	0.48	0.49	0.56
7. Visual and Graphic Arts	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05
8. Advertising Services	0.27	0.33	0.38	0.43	0.43	0.43	0.44	0.43
9. Copyright Collecting Societies	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
Core Copyright Industry	3.43	3.36	3.21	3.01	2.96	2.97	2.97	3.03

Table 16: Employment in Core Copyright Industry, full time units

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Press and Literature	13,494	13,200	13,058	12,721	12,561	12,743	13,241	13,417
2. Music, Theatrical Productions, Operas	2,286	2,311	2,447	2,391	2,799	3,043	3,309	3,046
3. Motion Picture and Video	5,942	5,451	4,303	2,637	2,808	2,661	2,704	2,899
4. Radio and Television	5,897	5,426	4,511	3,617	3,538	3,502	3,345	3,363
5. Photography	923	949	896	700	749	628	597	543
6. Software and Databases	2,708	3,209	3,728	4,517	4,484	5,412	5,754	6,477
7. Visual and Graphic Arts	454	494	495	431	393	444	498	526
8. Advertising Services	2,744	3,337	3,981	4,467	4,590	4,770	5,091	5,073
9. Copyright Collecting Societies	55	78	48	52	55	56	54	58
Core Copyright Industry	34,502	34,455	33,468	31,533	31,976	33,257	34,594	35,402

Interdependent Copyright Industry

The employment contribution picture of the interdependent copyright industries is essentially different, if compared with its contribution to GVA. Paper and Blank Recording Material generates essentially less employment than value added in percentage terms.

Figure 14: Interdependent Copyright Industry Contribution to Employment in 2008, %

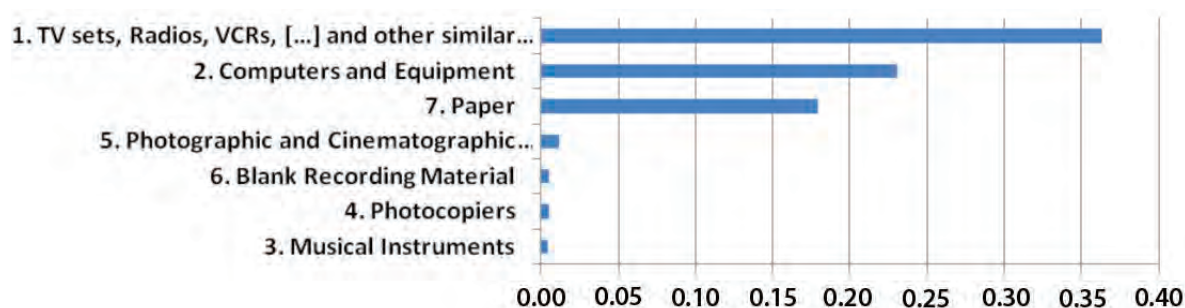


Table 17 depicts detailed employment developments in the interdependent copyright industry by providing employment figures in terms of its contribution to national employment.

Table 17: Interdependent Copyright Industry Contribution to Employment, %

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. TV Sets, Radios, VCRs, [...] and other similar equipment	0.44	0.46	0.49	0.55	0.37	0.37	0.36	0.36
2. Computers and Equipment	0.14	0.15	0.15	0.17	0.17	0.20	0.22	0.23
3. Musical Instruments	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
4. Photocopiers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Photographic and Cinematographic Instruments	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01
6. Blank Recording Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
7. Paper	0.21	0.15	0.19	0.18	0.18	0.19	0.18	0.18
Interdependent Copyright Industry	0.81	0.78	0.86	0.92	0.75	0.77	0.78	0.80

Table 18 measures the employment in the interdependent copyright industry in full time units. As in earlier cases, it allows looking behind the zero shares; for example, for Photocopiers or Blank Recording Material.

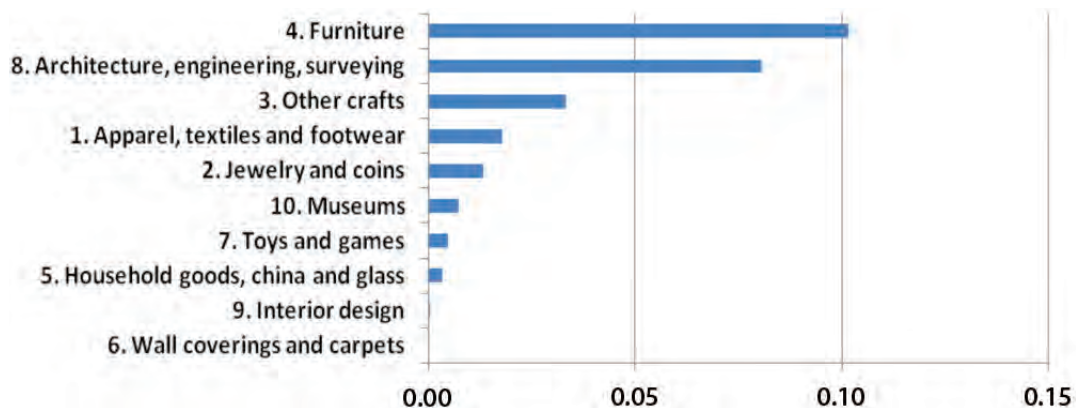
Table 18: Employment in Interdependent Copyright Industry, full time units

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. TV Sets, Radios, VCRs, [...] and other similar equipment	4,458	4,680	5,131	5,717	4,018	4,166	4,180	4,241
2. Computers and Equipment	1,440	1,498	1,604	1,805	1,854	2,197	2,526	2,692
3. Musical Instruments	38	39	47	46	51	58	58	52
4. Photocopiers	36	40	43	50	37	37	55	58
5. Photographic and Cinematographic Instruments	143	185	181	118	134	130	136	135
6. Blank Recording Material	0	0	2	4	2	4	33	64
7. Paper	2,068	1,565	1,955	1,932	1,949	2,083	2,070	2,091
Interdependent Copyright Industry	8,183	8,007	8,963	9,671	8,045	8,675	9,057	9,334

Partial Copyright Industry

The analysis of employment in the partial copyright industry reveals its clearly expressed heterogeneous character. The largest contributor to national employment is Furniture which ranked second in terms of GVA. Architecture, Engineering, Surveying is the second contributor to employment in this group, even though it was the first-ranked contributor to GVA. Jewellery and Coins, the fourth item on the value added list, is the fifth according to the employment ranking within the group, due to high productivity in the activity of striking coins. In contrast, Apparel, Textiles and Footwear shifted in the opposite direction, employing more than Jewellery and Coins. Although other sectors differed in productivity, they still managed to hold the same value added and employment rankings.

Figure 15: Partial Copyright Industry Contribution to Employment in 2008, %



The time series of individual partial copyright activities demonstrate a clear upward trend for Furniture, which increased its employment share from 0.06 to 0.10. In the meantime, Architecture, Engineering, Surveying decreased its employment contribution. Apparel, Textiles and Footwear, as well as Wall Coverings and Carpets, slowly and monotonically lost its importance in terms of employment.

Table 19: Partial Copyright Industry Contribution to Employment, %

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Apparel, Textiles and Footwear	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
2. Jewellery and Coins	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
3. Other Crafts	0.02	0.03	0.04	0.03	0.03	0.04	0.03	0.03
4. Furniture	0.06	0.08	0.08	0.09	0.10	0.10	0.10	0.10
5. Household Goods, China and Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Wall Coverings and Carpets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Toys and Games	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
8. Architecture, Engineering, Surveying	0.09	0.08	0.08	0.07	0.07	0.07	0.08	0.08
9. Interior Design	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Museums	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Partial Copyright Industry	0.23	0.24	0.26	0.25	0.25	0.26	0.27	0.26

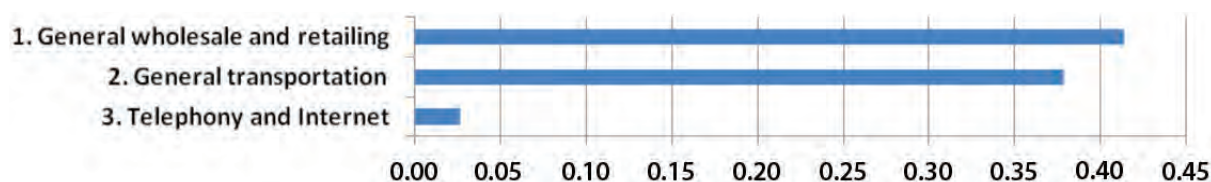
If measured in full time units (FTU), the partial copyright industry managed to expand job creation over the eight years surveyed. Its employment grew from 2,354 FTU to 3,067 FTU. The data show that Architecture, Engineering, Surveying, being a dominating contributor, went from 884 employees to 941 employees.

Table 20: Employment in Partial Copyright Industry, full time units

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. Apparel, Textiles and Footwear	271	282	277	259	238	241	226	209
2. Jewellery and Coins	110	137	141	117	142	154	177	154
3. Other Crafts	245	329	371	357	358	401	402	390
4. Furniture	645	769	871	962	1,066	1,177	1,182	1,186
5. Household Goods, China and Glass	43	41	41	42	48	48	47	40
6. Wall Coverings and Carpets	4	4	5	5	2	2	2	2
7. Toys and Games	72	62	76	76	57	66	67	55
8. Architecture, Engineering, Surveying	884	803	809	704	714	768	887	941
9. Interior Design	4	6	4	4	4	4	5	5
10. Museums	76	74	82	72	71	79	92	86
Partial Copyright Industry	2,354	2,507	2,677	2,597	2,701	2,940	3,087	3,067

Non-Dedicated Support Copyright Industry

Rather remarkably, non-dedicated support activities started with a 0.81 percent employment share made a U-turn and then rebounded to 0.82 percent. Obviously, job creation in non-dedicated support copyright industries was concentrated in General Wholesale and Retailing, as well as in General Transportation.

Figure 16: Non-Dedicated Support Copyright Industry Contribution to Employment in 2008, %

Table 21: Non-dedicated Support Copyright Industry Contribution to Employment, %

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. General wholesale and retailing	0.41	0.39	0.39	0.38	0.37	0.38	0.38	0.41
2. General transportation	0.35	0.35	0.35	0.33	0.32	0.34	0.35	0.38
3. Telephony and Internet	0.04	0.04	0.03	0.02	0.03	0.03	0.03	0.03
Non-dedicated support copyright industry	0.81	0.78	0.77	0.73	0.72	0.75	0.76	0.82

Table 22: Employment in Non-dedicated Support Copyright Industry, full time units

Category	2001	2002	2003	2004	2005	2006	2007	2008
1. General wholesale and retailing	4,164	4,018	4,049	3,962	4,011	4,308	4,478	4,827
2. General transportation	3,541	3,585	3,639	3,441	3,453	3,764	4,046	4,411
3. Telephony and Internet	441	368	320	258	275	298	319	314
Non-dedicated support copyright industry	8,145	7,971	8,008	7,661	7,739	8,370	8,843	9,552

Although this study applied the common approach as to how to measure non-dedicated support industries, which makes the results comparable with other studies, it seems that the evaluation method (practically applied by all copyright studies) is positive for some activities in open economies. The method seems to work well in Lithuania for General Wholesale and Retailing, as well as for Telephony and Internet which, by and

large, serve domestic customers. For General Transportation, more refined methods might be desirable in the future, if the country's economy provides many transport services to other countries.

3.3 Productivity in Major Copyright Activities

In this section, the comparison of value added and employment shares of major copyright economic activities provides important insights into the evolution of their trends. The Figures below eloquently speak for themselves by giving answers as to how the growth or contraction of value added and employment are interrelated. A positive difference between them shows the productivity advantage of the particular copyright sector against the overall economy. If value added is higher than employment, then productivity in the copyright activity under investigation is higher than in the economy in general. If the gap between the two lines is increasing, then the productivity gap is growing. Obviously, the opposite statements hold if the employment line lies above the value added curve.

This section reviews the three economically most significant groups from each of the copyright group (core, interdependent, partial and non-dedicated support), explaining their productivity advantages or disadvantages against the rest of the economy.

Figure 17: Press and Literature Contribution to Economy, %

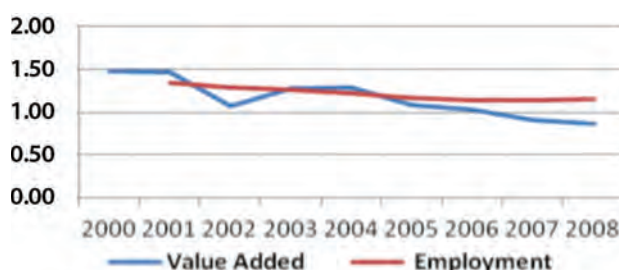


Figure 18: Software and Databases Contribution to Economy, %

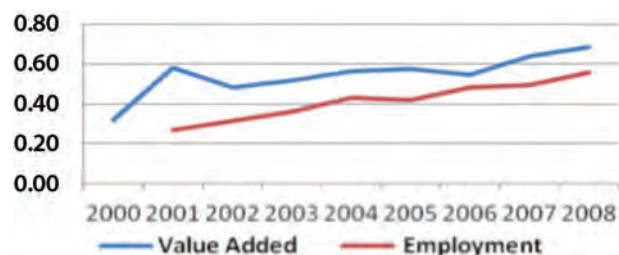
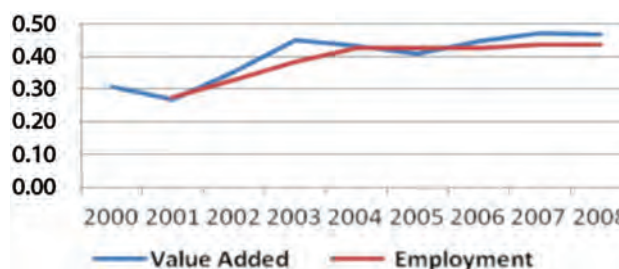


Figure 19: Advertising Services Contribution to Economy, %



Press and Literature, which is the largest activity among core copyright activities, has been less productive than the economy in general since 2005. Moreover, the productivity gap was constantly increasing at the end of the period. By contrast, Press and Literature was more productive compared to the overall economy in 2001 and 2004.

Contrary to the common perception, a positive productivity advantage of Software and Databases was very slowly reducing over the reporting period. The contribution of this group to gross value added was always

above its employment contribution, but instead of growing this gap has been slowly shrinking over the last six years at least.

Advertising Services, which is the third group by size in the Lithuanian core copyright industry, contributed more to gross value added than to employment over most of the reporting period with the only exception for 2005. The data prove that any clear direction in the productivity advantage of Advertising Services compared to the overall economy did not exist.

The three largest Lithuanian interdependent copyright industries are highly productive and clearly contribute a lot to the overall productivity of the copyright industry.

Figure 20: Paper Contribution to Economy, %

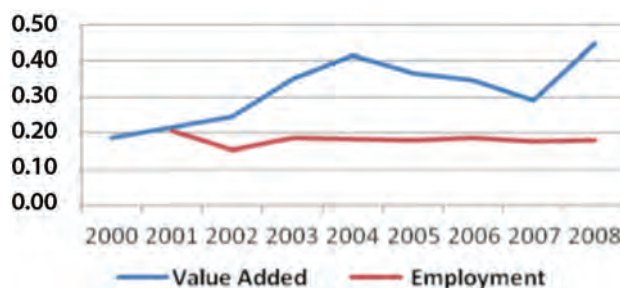


Figure 21: TV Sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Gaming Equipment, Other Similar Equipment Contribution to Economy, %

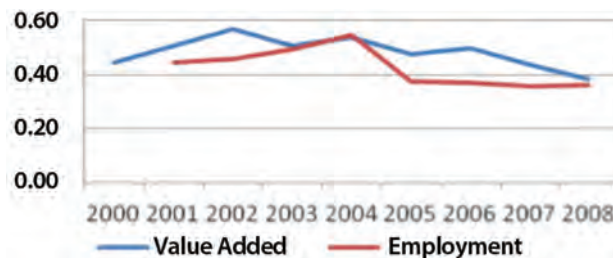


Figure 22: Computers and Equipment Contribution to Economy, %

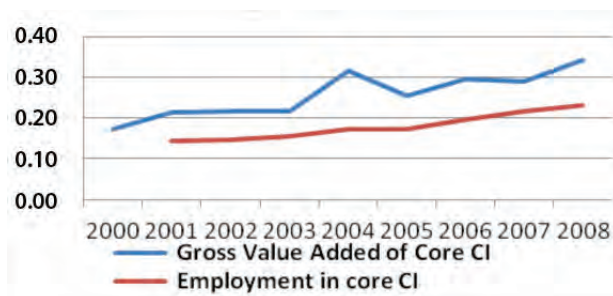
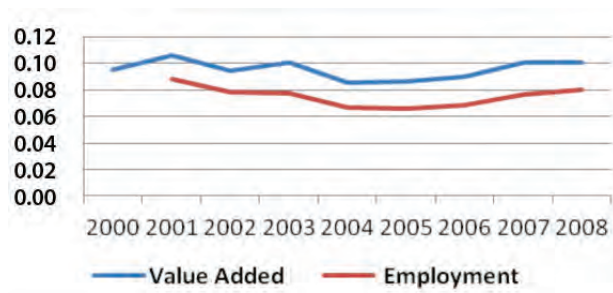


Figure 23: Architecture, Engineering, Surveying Contribution to Economy, %



The productivity gap is largest in the Paper subgroup. The statistical data show that, for some years, the value added share of this group was twice as large as its contribution to employment.

The second largest group, TV Sets *et al*, was relatively productive. However, from 2002, it gradually lost its economic significance, ending up in the second place in the interdependent group. Although this extremely heterogeneous group contributed much more to employment than the Paper activities, its value added was smaller at the end of the period.

Although the Computers and Equipment sub-category was only third in the interdependent group in 2008 by its size, it exhibited the steepest trend upwards over the decade. It is evidently more efficient than the Lithuanian economy in general and it showed no signs of giving up this comparative advantage.

The largest activities in the partial copyright activities group have completely different productivity patterns, which can be explained by the heterogeneity of this group. The largest group, Architecture, Engineering, Surveying, created a larger value added share than the employment share. Moreover, its productivity advantage showed no sign of decline as both red and blue lines have moved closely in parallel over the years. Rather remarkably, this group bottomed in 2004–2005 without any loss in its productivity.

Figure 24: Furniture Contribution to Economy, %

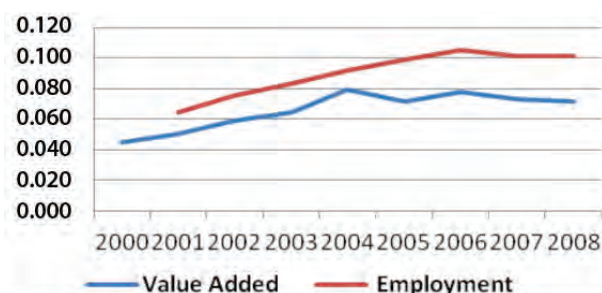


Figure 25: Other Crafts Contribution to Economy, %

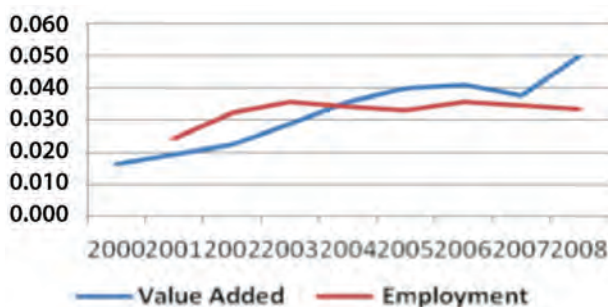


Figure 26: General Wholesale and Retailing Contribution to Economy, %

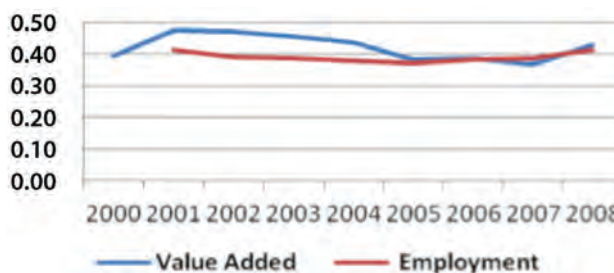




Figure 27: General Transportation Contribution to Economy, %

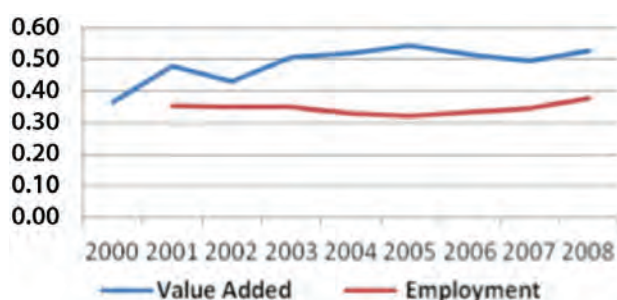


Figure 28: Telephony and Internet Contribution to Economy, %

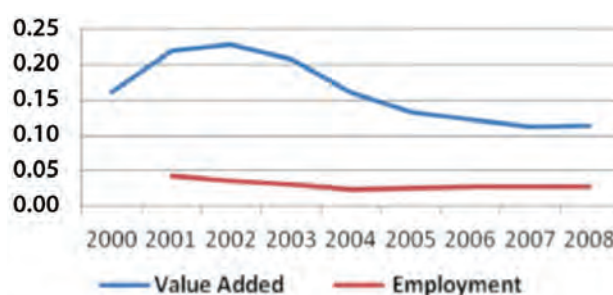


Figure 24 shows developments in the growing sector of Furniture which at the same time managed to increase the productivity disadvantage during the period of robust growth. Its productivity disadvantage managed to widen while growing steadily.

Other Crafts, being the third largest partial copyright group, managed to turn productivity disadvantage to advantage. The change took place in 2004. Also, some additional productivity jump was observed at the end of the period.

The fourth copyright group of non-dedicated support industries is far more productive than the overall Lithuanian economy. Non-dedicated support copyright industries consist only of three subgroups. Their productivity developments over time are reflected in the Figures 26–28. General Wholesale and Retailing has lost the efficiency advantage it previously had at the beginning of the decade.

General Transportation increased its productivity with a clear peak in 2005, both in value added and in productivity. Partial loss of the earlier gained efficiency advantage occurred together with a rapid growth in employment in 2006–2008, which were the end of the economic bubble years.

Telephony and Internet preserved its productivity advantage. However, it was substantially reduced compared to the telecoms bubble years of 2001–2003. Even after these sudden shifts were largely over during 2007–2008, this sector seems to be outstanding in its ability to create three times more value added per person employed than the Lithuanian economy in general.

This section showed how different and even incomparable developments in specific copyright industries are. Some copyright industries were gaining economic advantage, while others were losing it.

3.4 Comparison of foreign trade, value added and employment

The third investigated feature of the copyright industry in Lithuania is its contribution to exports of goods and services. The international trade analysis relied directly on the available data in publicly available statistical data sources. Fortunately and uniquely in this context, there was no need to impute trade data or make it consistent with overall aggregates, as was previously the case with value added and employment, when the structural statistics data were reconciled with national accounting statistics.

The share of foreign trade was assessed by analysing separately trade in goods and trade in services. The statistics of trade in goods were available according to the Classification of Products by Activity (CPA) which

is perfectly consistent with the Classification of Economic Activities in the European Community (NACE); therefore, the shares of exports and imports were calculated directly using the same copyright factors and the same calculation structure in general as for the value added calculations. Unfortunately, the statistics of services are not collected in accordance with the corresponding classification of economic activities. Fortunately, the balance of payment statistics could be applied for the copyright industry analysis.

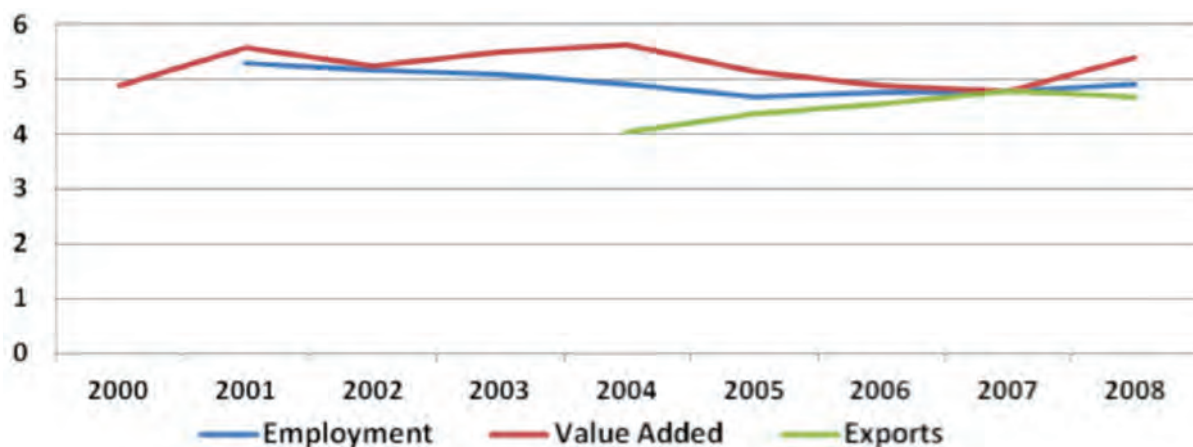
The contribution to exports in goods was remarkably close to that of employment and made up 4.68 percent in 2008. Since the copyright economy comprised 5.40 percent of the value added, it shows that the domestic role of the copyright industry was somewhat higher than its ability to contribute revenues from abroad. The proximity of the export share to the employment contribution value of 4.92 percent shows that the copyright industry export and employment shares managed to converge substantially over the reporting period.

Figure 29: Exports Shares in 2008, %



The value added and employment of the Lithuanian copyright industry were rather closely correlated, while the copyright industry exports had a rather different and more pronounced dynamic. Developments in value added have more volatility compared to a much smoother employment trend. Nevertheless, they both demonstrated movements in the same direction, with a single exception in 2003–2004. In contrast, the contribution of the copyright industry to foreign trade is evolving along somewhat smoother lines than value added but, remarkably, it moves in the opposite direction. In addition, annual shifts in the foreign trade of the copyright industry are much more pronounced if compared to changes in value added or employment contributions. Table 23 clearly summarises the Lithuanian economic copyright history over 2000–2008 by putting the copyright industry foreign exports contributions to the overall exports in the context of gross value added and employment.

Figure 30: Copyright Industry Contribution to Lithuanian Economy, %



All in all, the copyright industry seems to be less cyclical than the overall economy. Lithuanian data support the hypothesis that the best years for the copyright industry are the early stages of an economic recovery. When the economy overheats, the construction sector and other sectors related to it are also prone to overheating. As a consequence, during bubble years, the economic contribution of the copyright economy is smaller in percentage terms. It could be said that people do not start to write and read more books when they are building more, but people do not give up writing and reading if they start building less. Accordingly, during a recession or in hardship years, the copyright sector makes a greater contribution to the economy.

To some extent, the copyright economy contributes to a less pronounced business cycle. This is evident from Figure 30 as 2005–2007 were bubble years in the Lithuanian economy.

Table 23: Copyright Industry Contribution to the Economy, %

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment		5.29	5.17	5.10	4.92	4.68	4.75	4.78	4.92
Value Added	4.87	5.58	5.24	5.50	5.62	5.15	4.89	4.79	5.40
Exports of Goods and Services					4.03	4.37	4.56	4.78	4.68

From 2004 to 2008, the Lithuanian copyright industry managed to increase its share in exports of goods and services, taken together, quite substantially, while the exports of services on their own exhibited a 'V' shape movement by hitting the bottom in 2006. Although exports of copyright goods were rapidly gaining momentum, they decreased somewhat in 2008, when international trade was negatively affected both globally and regionally. The shares of the copyright goods exports were on a par with the value added contribution, while the copyright exports of services had a much smaller share than the copyright industry contribution to value added. Contribution of copyright services exports was just 1.28 percent in 2008. In Table 24, exports of copyright goods are compared to the total exports of goods, while exports of services are compared to exports of services. That is why the figures should not, and do not, add up.

Table 24: Copyright Industry Contribution to Exports, %

	2004	2005	2006	2007	2008
Exports of Goods	4.66	5.18	5.49	5.67	5.37
Exports of Services	1.66	1.27	0.95	1.00	1.28
Exports of Goods and Services	4.03	4.37	4.56	4.78	4.68

The overall decline of the contribution of the copyright exports of services is primarily explained by a drop in the share of Computer and Information Services. These services fell as low as 0.51 percent of the exports in services and recovered to 1.07 percent in 2009. Quite remarkably, the least volatile contribution to the export of services was generated by Personal, Cultural and Recreational Services, which fluctuated around 0.4 percent of the overall exports of services. The contribution of Royalties and Licence Fees contracted twofold over the 2004–2010 period. It is important to mention that, for Computer and Information Services, as well as for Personal, Cultural and Recreational Services, the copyright factor was 1, while Royalties and Licence Fees was attributed the value of 0.5. More details can be found in Annexes 8 and 10. Table 25 provides the contribution shares to the exports of services up to 2010.

Table 25: Copyright Industry Contribution to the Export of Services, %

	2004	2005	2006	2007	2008	2009	2010
Computer and Information Services	1.26	0.91	0.51	0.59	0.88	1.07	0.94
Royalties and Licence Fees	0.02	0.03	0.01	0.00	0.01	0.00	0.01
Personal, Cultural and Recreational Services	0.39	0.33	0.43	0.41	0.39	0.43	0.40
Export of Copyright Services	1.66	1.27	0.95	1.00	1.28	1.50	1.34

The Lithuanian economy is much more dependent on the imports of copyright goods than on their exports. This statement is valid for both foreign trade in goods and foreign trade in services. If the copyright exports of goods made up 5.62 percent in 2008, the corresponding imports share was 6.28 percent. Similarly, with copyright services, the copyright exports of services made up 1.28 percent and the corresponding imports share was 1.56 percent in 2008. More details on the copyright imports of services can be found in Annexes 9 and 11.

Table 26: Copyright Industry Contribution to Imports, %

	2004	2005	2006	2007	2008
Imports of Goods	6.92	6.90	6.69	6.70	5.90
Imports of Services	1.87	1.73	1.47	1.17	1.56
Imports of Goods and Services	6.33	6.29	6.08	6.03	5.38

Although copyright-related imports in the Lithuanian economy are dominated by Computer and Information Services, other items also make up a substantial share. All three items on the services imports list were rising, if compared to GVA. This reflects the rapidly growing openness of the Lithuanian economy. Imports of Computer and Information Services grew from 1.23 percent share in 2004 to 1.33 percent in 2010. Royalties and Licence Fees grew from 0.55 percent to 0.61 percent accordingly. Even though Personal, Cultural and Recreational Services increased its percentage share four times over the reporting period, its annual exports share was always higher than the corresponding imports share.

Table 27: Copyright Industry Contribution to the Imports of Services, %

	2004	2005	2006	2007	2008	2009	2010
Computer and Information Services	1.23	1.11	0.90	0.79	0.94	1.26	1.33
Royalties and Licence Fees	0.55	0.50	0.48	0.32	0.41	0.49	0.61
Personal, Cultural and Recreational Services	0.09	0.12	0.09	0.06	0.21	0.33	0.36
Import of Copyright Services	1.87	1.73	1.47	1.17	1.56	2.08	2.30

Looking at actual amounts in LTL million, it turns out that the balance between exports and imports of copyright-related services was positive until 2005, but it turned out substantially negative in 2008–2010. The largest negative contribution was generated by Royalties and Licence Fees which earned 1.1 LTL million in 2010, while imports were LTL 45.4 million. The balance between imports and exports of Computer and Information Services is nearly neutral in 2010, after this category lost its positive significant contribution. Analysing in nominal terms is especially valuable for foreign trade which is far more volatile than employment or gross value added. The tables below present exports and imports of the copyright industry.

Table 28: Copyright Industry Export of Services, LTL million

	2004	2005	2006	2007	2008	2009	2010
Computer and Information Services	85.6	78.3	50.4	59.8	97.9	98.4	100.8
Royalties and Licence Fees	1.1	2.7	1.0	0.2	1.1	0.5	1.2
Personal, Cultural and Recreational Services	26.4	28.9	42.8	41.2	43.8	39.1	42.5
Exports of Copyright Services	113.1	109.9	94.2	101.1	142.8	138.0	144.5

Table 29: Copyright Industry Imports of Services, LTL million

	2004	2005	2006	2007	2008	2009	2010
Computer and Information Services	55.8	63.7	62.5	67.4	92.2	92.9	98.1
Royalties and Licence Fees	25.0	28.8	33.4	27.2	40.4	36.3	45.4
Personal, Cultural and Recreational Services	4.0	6.7	6.6	5.4	20.3	24.3	26.3
Imports of Copyright Services	84.8	99.1	102.5	100.0	152.9	153.4	169.8

3.5 The Most Important Core Copyright Industries

This section deals with three most important core copyright industries, keeping a close eye on the lowest level of aggregation. As explained above, in terms of the contribution to value added and employment the most important industries are Press and Literature, Software and Databases, and Advertising Services. Hereafter, the structure of these industries is described by drilling down to the NACE four digit level, both for value added and for employment. Moreover, business demography is provided for these most important industries. As in previous sections, a dynamic picture over the business cycle is presented, completing the picture. It is important to note that information provided in this section takes into account sharing factors for those economic activities that are shared, i.e., values assigned to a specific code reflect only that part of a four digit economic activity which is assigned to a particular copyright group under investigation.¹⁸ This equally applies to their value added, employment and the number of enterprises.

3.5.1 Press and Literature

This subsection looks at the structural composition of value added, employment and business demography of Press and Literature, which is the largest, but shrinking, part of the core copyright industry. The analysis of Press and Literature starts with its business demography. The number of enterprises in Press and Literature has gradually fallen with some very small rebounds. Nevertheless, this decline in number of enterprises was still much less pronounced than the contraction of employment. The value added share of Press and Literature was falling even more abruptly than employment.

The number of enterprises in Press and Literature reduced from 1,266 in 2000 to 1,163 in 2008, while different activities exhibited opposite movements. The number of enterprises increased substantially only in two activities: 22.13 and 22.22. All other activities were either showing no significant growth, were falling or had just a few enterprises.

Table 30: Number of Enterprises in Press and Literature

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.11	Publishing of books	229	308	237	209	199	218	218	215	197
22.12	Publishing of newspapers	162	128	170	121	107	110	111	112	96
22.13	Publishing of journals and periodicals	114	92	94	146	149	146	148	150	170
22.15	Other publishing	74	69	75	74	79	89	89	95	81
22.21	Printing of newspapers	63	53	56	33	25	22	17	18	13
22.22	Printing n.e.c.	148	160	179	184	189	185	209	208	229
22.23	Bookbinding	17	20	12	16	12	9	12	10	12
22.24	Pre-press activities	11	10	9	19	17	19	19	17	18
22.25	Ancillary activities related to printing	36	31	35	43	41	43	37	36	39
52.47	Retail sale of books, newspapers and stationery	336	291	302	294	272	269	233	223	213
52.50	Retail sale of second-hand goods in stores	31	28	28	26	25	24	24	23	22
74.87	Other business activities n.e.c.	24	23	25	14	13	14	17	21	24
92.31	Artistic and literary creation and interpretation	16	16	14	16	12	17	21	25	34
92.40	News agency activities	4	5	4	5	4	4	6	5	5
92.51	Library and archives activities	2	5	6	10	8	6	6	10	10
Press and Literature		1,266	1,238	1,246	1,210	1,152	1,175	1,167	1,168	1,163

¹⁸This is dealt with in the last Part of the study and in Annex 12.

For reasons of comparability, it is important to look at the value added shares of economic activities because the Lithuanian economy was rapidly developing during the reporting period. As has already been explained, this copyright group contracted substantially in terms of value added: from 1.48 percent in 2000 to 0.87 percent in 2008. This quite dramatic decline measured at the aggregated level covers both happier and unhappier cases if aggregated at the lower level. Interestingly, Publishing of Books (22.11) in eight years shed 32 enterprises out of 229 in 2000, but its value added share in the economy contracted by more than a factor of three over the same period from 0.40 percent to 0.13 percent. Publishing of Newspapers (22.12) followed the unfortunate fate of book publishing by contracting from 0.25 percent in 2000 to 0.13 percent in 2008. Publishing of Journals and Periodicals (22.13) did exceptionally well by expanding from 0.07 percent share of the economy to 0.10 percent. Table 31 makes it easy to see which activities were gaining or losing in economic importance.

Table 31: Value Added in Press and Literature, %

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.11	Publishing of books	0.40	0.41	0.26	0.14	0.16	0.14	0.13	0.13	0.13
22.12	Publishing of newspapers	0.25	0.21	0.13	0.30	0.33	0.26	0.19	0.14	0.13
22.13	Publishing of journals and periodicals	0.07	0.07	0.06	0.15	0.14	0.10	0.10	0.09	0.10
22.15	Other publishing	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.01
22.21	Printing of newspapers	0.17	0.15	0.07	0.08	0.07	0.06	0.05	0.04	0.01
22.22	Printing n.e.c.	0.17	0.17	0.19	0.25	0.26	0.22	0.33	0.31	0.30
22.23	Bookbinding	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.24	Pre-press activities	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01
22.25	Ancillary activities related to printing	0.02	0.02	0.01	0.03	0.04	0.03	0.03	0.03	0.04
52.47	Retail sale of books, newspapers and stationery	0.29	0.30	0.23	0.19	0.19	0.19	0.13	0.10	0.10
52.50	Retail sale of second-hand goods in stores	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.87	Other business activities n.e.c.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
92.31	Artistic and literary creation and interpretation	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00
92.40	News agency activities	0.05	0.05	0.04	0.04	0.03	0.02	0.01	0.01	0.02
92.51	Library and archives activities	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Press and Literature		1.48	1.46	1.06	1.27	1.28	1.09	1.03	0.90	0.87

Evaluating in terms of LTL million allows the study to see in which activities contraction was even nominal. For example, Publishing of Books (22.11) contracted nominally over the period from LTL 172.9 million in 2001 to LTL 126.2 million in 2008. Although Publishing of Newspapers (22.12) grew in nominal terms only modestly, Publishing of Journals and Periodicals grew by nearly a factor of four. Printing of Newspapers (22.21) contracted by more than ten times over the period because the activity, most likely, had shifted to Printing n.e.c. (22.22) which has grown approximately by four and a half times over the period. Consistently with the developments in publishing, activity 52.47 of Retail Sale was not growing either. Table 32 presents information on the value added (at four digit NACE level) in Press and Literature, accounting in LTL million.

Table 32: Value Added in Press and Literature, LTL million

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.11	Publishing of books	156.4	172.9	113.1	69.8	86.6	91.6	96.7	110.7	126.2
22.12	Publishing of newspapers	97.2	89.8	57.6	148.0	177.6	163.5	140.7	125.3	126.7
22.13	Publishing of journals and periodicals	26.7	30.4	26.0	71.5	74.6	66.4	70.6	81.9	95.2
22.15	Other publishing	13.2	12.6	9.2	13.9	18.0	13.9	16.4	16.0	12.7

Table 32: Value Added in Press and Literature, LTL million (continued)

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.21	Printing of newspapers	68.1	64.0	31.4	41.2	37.7	34.9	38.4	38.0	6.6
22.22	Printing n.e.c.	65.1	73.3	83.2	124.5	137.4	141.2	243.9	269.9	296.0
22.23	Bookbinding	2.8	2.4	0.5	1.0	0.7	0.2	0.6	0.6	1.0
22.24	Pre-press activities	4.7	6.3	6.0	11.0	10.0	9.0	10.6	10.8	12.1
22.25	Ancillary activities related to printing	6.8	8.3	2.8	16.7	18.9	21.9	24.7	27.6	35.1
52.47	Retail sale of books, newspapers and stationery	112.2	127.8	99.6	91.7	102.2	117.4	94.3	91.5	104.6
52.50	Retail sale of second-hand goods in stores	1.2	1.7	1.1	1.4	1.6	2.3	2.5	2.2	3.3
74.87	Other business activities n.e.c.	2.8	3.4	5.7	3.7	3.8	4.3	4.1	5.1	6.2
92.31	Artistic and literary creation and interpretation	2.7	3.7	2.8	6.1	2.6	3.8	2.5	1.2	3.1
92.40	News agency activities	18.9	22.8	18.5	19.3	13.8	11.2	8.1	8.0	16.1
92.51	Library and archives activities	0.1	0.2	2.7	2.7	4.1	6.0	6.4	11.2	24.7
Press and Literature		578.9	619.5	460.1	622.6	689.6	687.4	760.7	800.0	869.5

Employment in Press and Literature did not change significantly over the seven years. It started with 13.5 thousand FTU in 2001 and ended with 13.4 thousand in 2008. In between, it exhibited a 'U' pattern with the lowest dip in 2005. If Publishing of Books contracted from 2,866 employees to 1,078, a factor of nearly three, Publishing of Journals and Periodicals expanded by a factor of three from 642 to 1,828 employees. At the end of the period, the biggest employment was created by Printing n.e.c. (22.22) with 3,651 employees in 2008.

Table 33: Employment in Press and Literature, full time units

Code	Description	2001	2002	2003	2004	2005	2006	2007	2008
22.11	Publishing of books	2,866	2,527	1,175	977	1,208	1,179	1,288	1,078
22.12	Publishing of newspapers	1,951	1,887	2,532	2,583	2,295	1,875	1,932	2,345
22.13	Publishing of journals and periodicals	642	866	1,708	1,637	1,597	1,509	1,609	1,828
22.15	Other publishing	273	293	262	248	282	276	340	271
22.21	Printing of newspapers	1,371	966	685	666	411	371	397	105
22.22	Printing n.e.c.	1,351	2,066	2,193	2,143	2,560	3,147	3,360	3,651
22.23	Bookbinding	64	27	39	24	14	15	17	31
22.24	Pre-press activities	113	119	201	188	202	173	174	107
22.25	Ancillary activities related to printing	140	93	233	217	262	256	263	250
52.47	Retail sale of books, newspapers and stationery	2,938	2,774	2,607	2,856	2,614	2,640	2,506	2,339
52.50	Retail sale of second-hand goods in stores	55	55	55	47	53	56	67	59
74.87	Other business activities n.e.c.	138	210	139	142	143	143	162	187
92.31	Artistic and literary creation and interpretation	469	377	396	173	185	189	248	264
92.40	News agency activities	1,113	845	675	574	379	387	346	337
92.51	Library and archives activities	9	95	159	245	357	527	532	565
Press and Literature		13,494	13,200	13,058	12,721	12,561	12,743	13,241	13,417

The employment share of Press and Literature contracted less dramatically than its value added. It fell from 1.34 in 2001 to 1.15 in 2008. Table 34 presents employment shares of separate four digit activities compared to the total employment of the economy. Interestingly, in 2008, Printing n.e.c. was the biggest contributor, delivering 0.31 percent share of the total employment in the economy, even though it started from a very low base with 0.13 percent share in 2001.

Table 34: Employment in Press and Literature, %

Code	Description	2001	2002	2003	2004	2005	2006	2007	2008
22.11	Publishing of books	0.28	0.25	0.11	0.09	0.11	0.11	0.11	0.09
22.12	Publishing of newspapers	0.19	0.18	0.24	0.25	0.21	0.17	0.17	0.20
22.13	Publishing of journals and periodicals	0.06	0.08	0.16	0.16	0.15	0.13	0.14	0.16
22.15	Other publishing	0.03	0.03	0.03	0.02	0.03	0.02	0.03	0.02
22.21	Printing of newspapers	0.14	0.09	0.07	0.06	0.04	0.03	0.03	0.01
22.22	Printing n.e.c.	0.13	0.20	0.21	0.20	0.24	0.28	0.29	0.31
22.23	Bookbinding	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.24	Pre-press activities	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01
22.25	Ancillary activities related to printing	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
52.47	Retail sale of books, newspapers and stationery	0.29	0.27	0.25	0.27	0.24	0.24	0.22	0.20
52.50	Retail sale of second-hand goods in stores	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01
74.87	Other business activities n.e.c.	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
92.31	Artistic and literary creation and interpretation	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02
92.40	News agency activities	0.11	0.08	0.06	0.05	0.04	0.03	0.03	0.03
92.51	Library and archives activities	0.00	0.01	0.02	0.02	0.03	0.05	0.05	0.05
Press and Literature		1.34	1.29	1.25	1.22	1.16	1.14	1.14	1.15

3.5.2 Software and Databases

Software and Databases was the real growth champion in the Lithuanian copyright industry, growing its share in the national economy approximately twice over. To be more precise, the number of enterprises nearly doubled, while value added and employment grew more than twice over during 2000–2008.

The number of enterprises in Software and Databases grew from 560 in 2000 to 1,040 in 2008. Other Software Consultancy and Supply (72.22) reached 605 enterprises in 2008, accounting for more than half of the enterprises in the sector. Database Activities was a growth champion in its own class by increasing the number of enterprises from 39 in 2000 to 128 in 2008. Data Processing Activities and Other Computer Related Activities were growing less steeply than the entire sector of Software and Databases. Remarkably, Publishing of Software was significantly contracting in business establishments from 101 in 2000 to 73 in 2008. For more details on the growth pattern in business demography see Table 35.

Table 35: Number of Enterprises in Software and Databases

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.33	Reproduction of computer media	7	6	9	13	11	9	8	7	5
72.21	Publishing of software	101	124	138	140	93	77	65	71	73
72.22	Other software consultancy and supply	227	277	309	314	349	422	492	551	605
72.30	Data processing	48	46	47	44	46	39	39	52	67
72.40	Database activities	39	43	58	59	51	49	59	95	128
72.60	Other computer related activities	138	145	156	192	174	169	177	162	162
Software and Databases		560	641	717	762	724	765	840	938	1,040

The contribution of Software and Databases to the economy measured in basic prices increased from 0.32 percent in 2000 to 0.69 percent in 2008. The only year when its economic share was not rising was 2002, which was the year when the economic recovery was about to start. If Other Software Consultancy and Supply (72.22) made up a quarter of the sector with 0.08 percent value, after a decade of impressive growth, it was making up nearly two thirds of the sector with a 0.45 percent contribution in 2008. Other Computer Related Activities (72.60), which also started low with 0.01 percent in 2000, was the second by economic size in 2008. Database Activities (72.40), the third largest group in 2005, increased its contribution from 0.04 percent in 2000 to 0.05 percent in 2008. Publishing of Software (72.21) lost its leading position in 2000, when it contributed 0.13 percent, and fell to the fourth place with a 0.04 percent contribution.

Table 36: Value Added in Software and Databases, %

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.33	Reproduction of computer media	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.21	Publishing of software	0.13	0.24	0.19	0.24	0.14	0.10	0.08	0.08	0.04
72.22	Other software consultancy and supply	0.08	0.15	0.12	0.15	0.32	0.35	0.35	0.41	0.45
72.30	Data processing	0.06	0.09	0.05	0.04	0.03	0.05	0.04	0.06	0.07
72.40	Database activities	0.04	0.05	0.03	0.05	0.05	0.05	0.04	0.06	0.05
72.60	Other computer related activities	0.01	0.05	0.08	0.04	0.02	0.02	0.03	0.03	0.09
Software and Databases		0.32	0.58	0.48	0.52	0.56	0.58	0.54	0.64	0.69

Evaluating in terms of LTL million shows that, in nominal terms, Software and Databases grew by five and a half times from 2000 to 2008. It is not surprising that activity 72.22 with its large share contributed the most. It is easy to figure out that the software industry had only two nominally contracting sectors: Reproduction of Computer Media (22.33) and Publishing of Software (72.21). Table 37 below presents information on value added (at the four digit NACE level) in Software and Databases, accounted in LTL million.

Table 37: Value Added in Software and Databases, LTL million

Code	Description	2000	2001	2002	2003	2004	2005	2006	2007	2008
22.33	Reproduction of computer media	0.6	0.5	0.2	0.3	0.9	1.6	1.6	0.4	0.4
72.21	Publishing of software	49.3	100.5	81.6	116.2	74.3	62.1	57.0	74.1	35.1
72.22	Other software consultancy and supply	31.3	63.9	51.9	73.9	172.8	222.6	258.7	358.8	448.2
72.30	Data processing	25.0	39.4	23.5	20.9	17.6	33.1	32.9	51.2	65.6
72.40	Database activities	14.3	20.5	15.1	24.8	25.5	30.7	31.0	54.8	47.3
72.60	Other computer related activities	5.0	21.2	36.0	17.3	13.1	15.5	18.7	25.9	90.8
Software and Databases		125.4	245.9	208.3	253.3	304.1	365.6	399.9	565.2	687.4

Employment in Software and Databases grew nearly as fast as its value added. The total contribution of this sector to employment increased more than twice from 2001 to 2008. It made up 0.27 percent of the total employment in 2001 and, after growing without any deviations, reached 0.56 percent of the country's employment in 2008. The employment contribution of Other Software Consultancy and Supply grew nearly three and a half times from 0.08 percent to 0.35 percent of the total employment over the period. Table 38 provides more information on employment in every single activity of Software and Databases.

Table 38: Employment in Software and Databases, %

Code	Description	2001	2002	2003	2004	2005	2006	2007	2008
22.33	Reproduction of computer media	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.21	Publishing of software	0.08	0.09	0.11	0.08	0.07	0.07	0.06	0.04
72.22	Other software consultancy and supply	0.08	0.09	0.11	0.22	0.22	0.30	0.30	0.35
72.30	Data processing	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.05
72.40	Database activities	0.03	0.04	0.06	0.06	0.05	0.05	0.06	0.05
72.60	Other computer related activities	0.05	0.06	0.05	0.04	0.04	0.04	0.05	0.07
Software and Databases		0.27	0.31	0.36	0.43	0.42	0.48	0.49	0.56

Data presented in FTU reiterate the story of success of Software and Databases. It grew from 2,708 FTU in 2000 to 6,477 FTU in 2008. More than 4,000 FTUs were created in Other Software Consultancy and Supply (72.22). Looking at FTU, it is easy to see that employment developments in Data Processing (72.30) and Database Activities (72.40) were remarkably parallel. The first started with 336 FTUs, the other one with 334 FTUs. In 2008, Data Processing employed 563 workers, while Database Activities created 585 jobs.

Table 39: Employment in Software and Databases, full time units

Code	Description	2001	2002	2003	2004	2005	2006	2007	2008
22.33	Reproduction of computer media	8	17	27	16	36	13	6	4
72.21	Publishing of software	781	920	1,197	785	729	742	668	476
72.22	Other software consultancy and supply	764	900	1,172	2,298	2,426	3,328	3,463	4,026
72.30	Data processing	336	330	254	314	283	343	358	563
72.40	Database activities	334	408	602	639	574	520	726	585
72.60	Other computer related activities	485	634	476	464	436	466	534	822
Software and Databases		2,708	3,209	3,728	4,517	4,484	5,412	5,754	6,477

3.5.3 Advertising Services

Advertising Services has a significant share of the copyright economy which, by and large, was rapidly growing with some ups and downs. The first decade of the millennium was a real story of success for Advertising Services, while the number of enterprises, value added and employment were growing in this activity. It is worth noting that the NACE 1.1 classification does not give Advertising Services proper attention, putting everything into one basket in the four digit code; 74.40. This rough classification does not allow in depth analysis of its structure as it was possible for Press and Literature, and Software and Databases.

The growth rates of value added, employment and the number of enterprises grew at different rates. The most moderate growth rate was in the number of enterprises. The number of enterprises grew from 946 in 2000 to 1,103 in 2008. Employment in advertising was boosted from 0.27 percent to 0.47 percent in 2008, if measured in terms of the total employment. The value added growth of Advertising Services was a little above that of employment. It went from 0.27 percent in 2001 to 0.47 percent in 2008. Nonetheless, Advertising Services performed less successfully than the rest of the economy during 2004–2005, as its economic contribution share fell to 0.41 percent in 2005. However, employment was not contracting accordingly at the same time. Table 40 below provides information on value added and employment in comparative terms.

Table 40: Information on Advertising Services (74.40), %

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of Enterprises	946	747	870	883	849	936	999	1,025	1,103
Value Added of Advertising, %	0.31	0.27	0.35	0.45	0.43	0.41	0.45	0.47	0.47
Employment of Advertising, %		0.27	0.33	0.38	0.43	0.43	0.43	0.44	0.43

As in previously analysed cases, the information in nominal terms is useful to look at to evaluate whether there was any nominal contraction in a sector. Table 41 shows that 2001 was the lowest year for Advertising Services, when even this sector could not withstand the contracting forces in the recession economy. In 2001 the value added contracted to LTL 113.7 million.

Table 41: Information on Advertising Services (74.40), in nominal terms

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of Enterprises	946	747	870	883	849	936	999	1,025	1,103
Value Added of Advertising, LTL million	120.0	113.7	151.7	219.9	232.9	258.3	328.2	417.3	466.7
Employment of Advertising, full time unit		2,744	3,337	3,981	4,467	4,590	4,770	5,091	5,073

4. Analytical Approach

This Part explains in detail the statistical data sources of the copyright industry, including the structural business statistics and national accounts. The second half of this Part explains the selection of copyright factors, and provides a comprehensive description of all copyright activities at a detailed four digit NACE level. Naturally, some economic activities may be included into several clusters; therefore the reasons for their attribution in the Lithuanian case and the sharing patterns are discussed as well. Finally, due to reasons of complexity, the imputation procedures of filling in missing values, and the statistical techniques of reconciling the structural business statistics with the national accounts data are explained in Annex 1.

The methodology used in this study is based on the WIPO methodology, i.e., the WIPO Guide. The process of research was divided into three steps:

The first step included the identification of the copyright and related rights-based industries to be studied, using as a reference point, Annex I and Annex III of the WIPO Guide, as well as country studies which used NACE 1.1 classification of economic activities. This was done in consultation with the Ministry of Culture and WIPO experts. The categorisation of the copyright and related rights-based industries followed the advice presented in the WIPO Guide: core, interdependent, partial and non-dedicated support copyright industries. Nevertheless, there were nine NACE codes that had to be attributed to several copyright industries. These codes, which are referred to as *shared* in this study, are shared among corresponding industries.



Based on the established classification according to NACE 1.1 of economic activities, the data collection stage was carried out. This involved compiling available statistical data by industry classes, imputing data where needed and possible, and collecting additional statistics by direct methods where imputation was impossible. The data were disaggregated to the required level of detail. In addressing specific areas, direct surveys were conducted, providing the data needed.



The third step was to measure and calculate the contribution of the copyright and related rights-based industries studied to gross value added, national output, employment, and foreign trade, using a selective approach based on the WIPO Guide. The study followed the gross value added approach (GVA) by measuring value added at basic prices. The gross domestic product (GDP) approach of measuring value added at market prices was deduced from GVA analysis and available national accounts data. Thus, as a first step, value added was measured at basic prices or, similarly, at market prices, excluding net taxes on products (taxes minus subsidies). The chosen approach better reflects the value added aspect important to copyright industry, because some copyright sectors are heavily subsidised by the government. If subsidies are high, then they reduce a market price accordingly. This would distort the measurement of the value added that is created. Moreover, information about net taxes on products is available only at the level of the two digit NACE code which is too aggregated for copyright industry analysis. In order to have comparability with other country studies, the value added at market prices was established at the NACE four digit level and, consequently, for copyright industry groups. Since neither national accounting nor business statistics provide value added at market prices at the four digit level,¹⁹ information from national accounting for the two digit level is used. It is assumed that net taxes on products and non-deductable VAT are homogeneously distributed among four digit codes sharing the same first two digits.

The overall methodological approach consisted of two principal statistical data components:

- (1) **Derivation of specific statistical data** for various copyright and related rights-based industries from the National Statistical Office of Lithuania (NSO), the Bank of Lithuania (BoL) and some specific surveys. Firstly, the statistical datasets had many missing values which had to be imputed. Secondly, for selected copyright and related rights-based activities, their contribution was shared between copyright industries (core, interdependent, partial, and non-dedicated support) following the Bulgarian copyright study. In the partial and non-dedicated support copyright industries, only some part of the output is copyright-related. The economic classification of economic activities in the study was based on the NACE Rev. 1.1. Thirdly, this stage included deriving a dataset for the copyright industry which is compatible with the national accounts definitions. The annual supply and use tables were publicly available for the years 2000–2007 from the Eurostat database. The supply and use tables for 2008 were released by the Lithuanian Department of Statistics (LDS) during the conduct of the study, and consequently employed.
- (2) **The establishment and application of copyright factors** which estimate how much a specific economic activity on the lower level of NACE is related to the copyright industry. This stage relied heavily on copyright studies from countries of similar economic structure, namely Bulgaria and Malaysia (in one case). The total impact comprises the direct, indirect and induced impacts. Direct impact is generated in core and interdependent industries, indirect in partial industries and induced in non-dedicated support industries. These impacts were established for value-added, employment, and foreign trade.²⁰

In general, as in other similar studies, the copyright industry was split into four categories by industry type: core, interdependent, partial, and non-dedicated support. Moreover, the core copyright industry was further split into nine subcategories, interdependent into seven, partial into ten, and finally, non-dedicated support into three subcategories. This followed strictly the classification guidelines of the WIPO Guide.

In total, if divided into **three levels of impact** these industry classes are as follows:

- (1) **The direct impact** consists of core and interdependent copyright sector
- (2) **The indirect impact** consists of partial copyright sector
- (3) **The induced impact** is limited to the group of non-dedicated support copyright industries.

An employment vector was compiled following the same pattern as for value added at basic prices in all details.

In contrast, the trade data were calculated for all copyright economy without further breakdowns by industry type. The balance of payments statistics had the necessary breakdowns from 2004; thus foreign trade in services could be analysed starting from that year. Hence, the study of foreign trade covers the annual data for 2004–2010.

This section is rather technical in its use of relatively complicated statistical notation originating from structural business statistics, national accounts, and balance of payments areas. Not all technical concepts could be sufficiently covered in what is a relatively short explanation. To gain a better understanding of underlying statistical concepts of the analytical approach, it is advised to consult the Organisation for Economic Co-operation and Development (OECD) Glossary of Statistical Terms. If more knowledge of statistical terms is required, then the United Nations System of National Accounts 1993 and the International Monetary Fund's Fifth Balance of Payments Manual 1993 should be consulted.

4.1 Targeted Data

Specific data for the analysis of copyright activities were provided by two primary institutions of official statistics: the Lithuanian Department of Statistics (LDS) and the Bank of Lithuania (BoL). Statistics on the domestic sector is compiled by LDS, while statistics on the external sector is a shared responsibility of both

¹⁹No country in the EU is able to produce this.

²⁰The WIPO Guide recommends using income approach for the calculation of GDP if the value added calculation cannot be employed directly. Alternative methods were not needed as the value added statistics were available for this research.

institutions. Trade data are available at LDS, whereas data on services and cross-border income transactions (royalties) are available at BoL.

LDS provided the requested information, which was not confidential. Since part of the required data was neither confidential nor publicly available, LDS was directly addressed to provide the dataset in as complete a fashion as possible. The request was completed, although some values were missing for confidentiality reasons.

The statistical dataset upon which this research is based consists of two sorts of data. The first comes from structural business statistics and provides detailed information on each single activity from the Complete Copyright Activity List (CCAL). CCAL is presented in Annex 12, with corresponding attributes and factors. It is important to notice that CCAL includes not only four digit codes taken directly from the WIPO Guide, but also higher (as in more general) positions of these codes (the first two digit and three digit codes from the CCAL) which are essential for consistency and plausibility checks during the estimation phase. Moreover, the data for the upper NACE levels were crucial when detailed information at the four digit level was confidential. As is the case in many countries, the structural business statistics dataset is inconsistent with the national accounts data, due to a narrower coverage than that found in national accounts.

The second part of the data comprises Lithuanian supply and use tables (SU) for 2000–2008. As SU tables are presented at a two digit level; the data for the CCAL had to be estimated at the lower four digit NACE levels.

4.1.1 *Datasets Time Series*

LDS and BoL were asked for specific annual indicator values for the period 2000–2008 and for each economic activity from CCAL. In general, it meant that LDS had to provide a table for each statistical indicator from item one to seven. In the dataset, a specific NACE code was attributed to each row, and years from 2000 to 2008 are assigned to columns. Moreover, items eight and nine were publicly available on the Eurostat or LDS web sites. All in all, LDS was a direct or indirect source for the following detailed datasets:

- (1) Number of enterprises in operation (structural business statistics) for 2000–2008.
- (2) Value added at factor costs (structural business statistics) for 2000–2008.
- (3) Value added at basic prices (structural business statistics) for 2000–2007.
- (4) Output at factor costs (structural business statistics) for 2000–2008.
- (5) Number of employees in full time units (structural business statistics) for 2001–2008.
- (6) Exports (Classification of Products by Activity at two and four digit level).
- (7) Imports (Classification of Products by Activity at two and four digit level).
- (8) Supply and use tables for 2000–2008.
- (9) Average number of employees by sector in full time units, economic activity
- (10) (NACE 1.1) for 2000–2008.

The received datasets were incomplete in many aspects; thus, not readily appropriate for aggregation. Whereas some items lacked specific values, other items lacked all the data for some years. Although five datasets out of seven were relatively complete in covering 2000–2008, two datasets were fundamentally incomplete. The average number of employees in full time units (item five) was not yet calculated in Lithuania in 2000; the data compilation started in 2001. The calculation of value added at basic prices (item three) was discontinued after 2007, although the value added at factor costs was still available for 2008. These two incomplete aspects were dealt with differently. Value added was imputed, while employment was analysed starting from 2001. Imputation techniques are explained in the corresponding section dealing with imputations.

Item one was needed to support the establishment of some very specific imputations, where official statistics regarding economic activity were insufficient. Regrettably, LDS refused to provide a list of the largest enterprises for each code from CCAL. This information could be valuable as it would allow the establishment of more accurate copyright factors for specific NACE codes from CCAL. Although the confidentiality rules do not apply to an economic activity of an enterprise, LDS explained that it applies to the lists of enterprises of a certain economic activity.

Items three to seven were directly employed in calculations, while item two was used to impute the dataset for item three.

BoL, in its annual External Statistics Bulletin, publishes annual trade in services data broken down by type of services. BoL was asked to provide a dataset where columns are attributed to the period of 2000–2008 and rows to the specific services of interest. BoL provided the data for 2000–2010, more information than requested. BoL could not provide a breakdown by NACE activity; the information on services is not aggregated on the basis of the main economic activity of an institutional unit which provides or consumes services with regard to non-residents. Thus, the data on trade in services were calculated for the national economy as a whole.

The following indicators for services (rows) were covered in the dataset:

1. Exports of services.
 - 1.1. Total services in kind.
 - 1.1.1. Computer and information services.
 - 1.1.1.1. Computer services.
 - 1.1.1.2. Information services.
 - 1.1.1.2.1. News agency services.
 - 1.1.1.2.2. Other information provision services.
 - 1.1.2. Royalties and licence fees.
 - 1.1.2.1. Franchises and similar rights.
 - 1.1.2.2. Other royalties and licence fees.²¹
 - 1.1.3. Personal cultural and recreational services.
 - 1.1.3.1. Audio-visual and related services.
 - 1.1.3.2. Other personal, cultural and recreational services.
2. Imports of services.
 - 2.1. Total services in kind.
 - 2.1.1. Computer and information services.
 - 2.1.1.1. Computer services.
 - 2.1.1.2. Information services.
 - 2.1.1.2.1. News agency services.
 - 2.1.1.2.2. Other information provision services.
 - 2.1.2. Royalties and licence fees.
 - 2.1.2.1. Franchises and similar rights.
 - 2.1.2.2. Other royalties and licence fees.
 - 2.1.3. Personal cultural and recreational services.
 - 2.1.3.1. Audio-visual and related services.
 - 2.1.3.2. Other personal, cultural and recreational services.

²¹ The Lithuanian version of this category is formulated as 'Payments for copyrights and licences' and the data are collected from enterprises. In the text above, the official translation from the annual BoL bulletin is provided.

4.1.2 *Supply and Use Tables*

The Lithuanian supply and use tables (2000–2008) were downloaded from the Eurostat website. These datasets on the Eurostat website are supplied by the LDS. The level of detail in these publicly available datasets is restricted to the two digit code of the NACE. Alternatively, although not covering all the years, the same datasets are available at the website of LDS <http://www.stat.gov.lt/en/pages/view/?id=1585>. At the beginning of the research, SU annual tables were available up to 2007. However, according to the LDS advance release calendar, the 2008 SU tables were released on November 30, 2011. Thus, it was possible to integrate this dataset into the analysis at a final stage. Finally, to derive GDP contribution shares from GVA contribution shares the breakdown of net taxes by economic activities was needed. This was available only in the supply and use tables for 2005 which are publicly available only in paper format. Fortunately, LDS kindly provided the electronic version of these specific tables.

In order to derive estimations for the copyright industries, firstly, the missing variables in the statistics datasets had to be imputed. Secondly, on the basis of the complete structural business statistics dataset of value added at basic prices for economic activities, the value added estimations, consistent with national accounts, were derived.

The collected statistical datasets had three sorts of incompleteness. Firstly, some data for an entire year were missing. Secondly, in some time series, some values were present and others were missing. Thirdly, some time series did not have any single value at all. The first issue originated from peculiarities of the Lithuanian Programme of Official Statistics, while the second and the third were due to confidentiality reasons. Estimating value added at market prices on the basis of gross value added contributions and net taxes on products could be attributed to the third category.

The authors managed to impute data values with appropriate statistical methods, which are explained in a dedicated annex below, due to the highly technical statistical character of the techniques applied. As most of the previous national studies have lacked transparent presentations of these techniques, it is evident that missing values is a recurrent problem, especially for smaller economies, so the authors anticipate that this annex will be of special interest for those willing to conduct studies themselves. An effective imputation is never a trivial thing to construct; nevertheless, its simplicity is a greatly desirable feature at the same time, allowing users to understand the reliability of derived estimates.

4.2 Copyright Factors

The copyright factors for economic activities are set out in this study by relying on the methodological recommendations in the WIPO Guide and the findings of the Bulgarian copyright study commissioned by WIPO. The choice of Bulgaria was based on its geographical proximity and economic similarity. Due to limited funding, this study could not conduct specifically targeted surveys in order to establish copyright factors. All the copyright factors used in this study are provided in Annex 12.

The copyright factors for core, interdependent and partial industries were taken to be the same as in the Bulgarian study for 2005. The copyright factors for core and interdependent copyright groups were also taken and are equal to 1. The copyright factors for partial copyright group were smaller than 1, as it should be, according to the definition of the partial copyright group, strictly following the Bulgarian shares as well.

The copyright factors for non-dedicated support activities were estimated for each year separately and the same factor was applied, calculating GVA contribution, GDP contribution, employment, and trade. According to the recommendation of the WIPO Guide, the value added of the first three groups was divided by the gross value added, minus the value added of non-dedicated support copyright industry. The derived copyright factor of the non-dedicated support copyright industry was applied for employment and foreign trade of non-dedicated support activities. Moreover, the same copyright factors were applied for value added aggregates at market prices, which were needed to derived estimates comparable to GDP.

Table 42 presents a comparison of selected factors adopted in different country studies. It is easy to see that differences between countries are relatively small; using the Bulgarian estimates for purposes of this study seems justified.

Table 42: Copyright Factors of Selected Countries

Industry	Singapore	Latvia*	Hungary	Jamaica	Bulgaria	Lebanon	Malaysia	China	Average Factor
Apparel, Textiles & Footwear	0.4%	0.4%	0.5%	0.5%	0.6%	2.0%	15.0%	0.40%	2.48%
Jewellery & Coins	25.2%	8.69%	25.0%	25.0%	20.0%	25.0%		8.00%	19.55%
Other Crafts	42.0%		40.0%		40.0%		26.7%	40.00%	37.74%
Furniture	5.0%	41.00%	5.0%	5.0%	5.0%	5.0%	35.0%	5.0%	13.25%
Household Goods, China & Glass	0.6%		0.5%	0.5%	0.5%	2.5%	0.4%	0.3%	0.75%
Wall Coverings & Carpets	1.7%	1.65%	2.0%	0.5%	0.4%	2.5%	1.08%	2.0%	1.48%
Toys & Games	42.0%	45.50%	50.0%	50.0%	40.0%	50.0%	26.7%	40.0%	43.03%
Architecture	8.3%		10.0%	50.0%	10.0%	10.0%	5.3%	6.0%	14.23%
Interior Design	8.3%			2.0%			5.28%	5.0%	5.15%
Museums			50.0%	50.0%	50.0%	50.0%		0.5%	40.10%
Miscellaneous Manufacturing		45.50%							
Wholesale & Retail of partial copyright industries			5.0%	5.0%		6.0%			5.33%

* Average of Singapore and USA factors. The Philippine study adopted Singapore's factors. Mexico used the average of USA and Hungary factors.

Source: Brunei Darussalam Copyright Study commissioned by WIPO, 2011.

For Lithuania, all the copyright factors are exactly the same as for Bulgaria in Table 2 with some additions, as the Bulgarian study missed some copyright industry classes. The copyright factor for Interior Design in Lithuania was taken as 5.28 percent, as in Malaysia, which is a country of comparable economic development.

Copyright factors for foreign trade in goods and services

The factors applied to CPA activities were the same as those applied to the corresponding NACE code while measuring economic contribution to gross value added. The application of copyright factors to trade in goods was rather straightforward, since, as was explained in the section dealing with statistical issues, the foreign trade data were available with the breakdown according to the CPA. This matches perfectly with the NACE classification.

The copyright factors for trade in services were set equal to 1 or 0.5 depending on the type of services. To measure foreign trade in services of the copyright industry, three categories of services from the balance of payments services account were singled out which were relevant for copyright activities:

- (1) computer and information services;
- (2) royalties and licence fees; and
- (3) personal, cultural, and recreational services.

The computer and information services category was estimated to have a copyright factor equal to 1. This category covers resident/non-resident transactions related to hardware consultancy, software implementation, information services (data processing, databases, news agency), and maintenance and repair of computers and related equipment.

For the copyright factor of the royalties and licence fees category the value 0.5 was assigned. Royalties and licence fees cover receipts (exports) and payments (imports) of residents and non-residents for (i) the authorised use of intangible non-produced, non-financial assets and proprietary rights, such as trademarks, copyrights, patents, processes, techniques, designs, manufacturing rights, franchises, etc., and (ii) the use, through licensing agreements, of produced originals or prototypes, such as manuscripts, films, etc.

The copyright factor of the personal, cultural, and recreational services category was set equal to 1. Personal, cultural, and recreational services cover (i) audiovisual and related services, and (ii) other cultural services provided by residents to non-residents, and vice versa. Included under (i) are services associated with the production of motion pictures on films or videotape, radio and television programmes, and musical recordings. Examples of these services are rentals and fees received by actors, producers, etc., for productions and for distribution rights sold to the media. Included under (ii) are other personal, cultural, and recreational services, such as those associated with libraries, museums, and other cultural and sporting activities.

The copyright factors for international trade in services are provided in Annexes 8–11.

4.3 List of Copyright Activities

Copyright and related rights activities are characterised as activities that are identifiably related to the copyright issue, even bearing in mind the fact that explicit definitions might vary between countries. Grouping of these activities is well-developed in the WIPO Guide and it is therefore used in this study. The WIPO Guide provides a list in its Annex II (ISIC version) and Annex III (NACE version). The Annex III list, with corresponding extensions, we call the Complete Copyright Activities List (CCAL). The list contains four categories that cluster economic activities according to the extent to which they are based on, and related to, copyright and related rights. Being more specific, the groups are:

- (1) **Core CIs.** Core Copyright Industries (CCI) are industries that are fully engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and any other protected subject matter.
- (2) **Interdependent CIs.** Interdependent Copyright Industries (ICI) are industries that are engaged in production, manufacturing and sales of equipment, the only or primary function of which is to facilitate the creation, production or use of works and any other protected subject matter.
- (3) **Partial CIs.** Partial Copyright Industries (PCI) are industries where a portion of the activities is related to works and other protected subject matter, and may involve the creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales.
- (4) **Non-dedicated support CIs.** Non-Dedicated Support Copyright Industries (NDCI) are industries where a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matters, and the activities of which do not fall into the category of CCI.

The current classification of economic activities in Lithuania is based on NACE Rev. 2. However, it has been used only from 2008 and is not comparable with longer statistical time series or any available Lithuanian supply and use tables. Since there is a clear need to make international comparisons of the Lithuanian copyright economy and its development over time, the NACE 1.1 classification will be used in the Lithuanian study. Moreover, this methodological choice allows the examination of the development of the copyright industries' contribution to the Lithuanian economy throughout most of the last business cycle. A follow up study of the Lithuanian copyright industries (which could be conducted in a few years time) will be evidently based on NACE Rev. 2. Moreover, this study covers all the data produced according to the NACE 1.1 framework.

A complete structure of the economic activities related to copyright investigated in this study is presented in Table 43. The table provides a coding for copyright industry categories and their groups which is used throughout the study. Since NACE was created without any regard for copyright studies, there are some economic activities which fall into several categories; thus they had to be split up applying certain sharing patterns. The last column shows whether a particular economic activity is attributed to a single group or is shared with other groups in the classification. The categories and groups in the list are in line with the WIPO Guide.

Table 43: Complete Copyright Activities List Used in the Study

Category	Groups	NACE 1.1	Description	Attribution
I. Core CIs	1. Press and Literature	22.11	Publishing of books	Single
		22.12	Publishing of newspapers	Single
		22.13	Publishing of journals and periodicals	Single
		22.15	Other publishing	Single
		22.21	Printing of newspapers	Single
		22.22	Printing n.e.c.	Single
		22.23	Bookbinding	Single
		22.24	Pre-press activities	Single
		22.25	Ancillary activities related to printing	Single
		52.47	Retail sale of books, newspapers and stationery	Single
		52.50	Retail sale of second-hand goods in stores	Shared
		74.87	Other business activities n.e.c.	Shared
		92.31	Artistic and literary creation and interpretation	Shared
		92.40	News agency activities	Single
	92.51	Library and archives activities	Single	
	2. Music, Theatrical Productions, Operas	22.14	Publishing of sound recordings	Single
		22.31	Reproduction of sound recording	Single
		51.43	Wholesale of electrical household appliances and radio and television goods	Shared
		52.45	Retail sale of electrical household appliances and radio and television goods	Shared
		74.87	Other business activities n.e.c.	Shared
		92.31	Artistic and literary creation and interpretation	Shared
		92.32	Operation of arts facilities	Single
		92.34	Other entertainment activities n.e.c.	Single
	3. Motion Picture and Video	22.32	Reproduction of video recording	Single
		51.43	Wholesale of electrical household appliances and radio and television goods	Shared
		74.87	Other business activities n.e.c.	Shared
		92.11	Motion picture and video production	Single
		92.12	Motion picture and video distribution	Single
		92.13	Motion picture projection	Single
		92.31	Artistic and literary creation and interpretation	Shared
	4. Radio and Television	92.20	Radio and television activities	Single
	5. Photography	74.81	Photographic activities	Single
	6. Software and Databases	22.33	Reproduction of computer media	Single
		72.21	Publishing of software	Single
		72.22	Other software consultancy and supply	Single
		72.30	Data processing	Single
		72.40	Database activities	Single
		72.60	Other computer related activities	Single
	7. Visual and Graphic Arts	74.87	Other business activities n.e.c.	Shared
		92.31	Artistic and literary creation and interpretation	Shared
		92.52	Museums activities and preservation of historical sites and buildings	Shared
	8. Advertising Services	74.40	Advertising	Single
	9. Copyright Collecting Societies	74.87	Other business activities n.e.c.	Shared

Table 43: Complete Copyright Activities List Used in the Study (continued)

Category	Groups	NACE 1.1	Description	Attribution	
II. Interdependent CIs	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 or video recording or reproducing apparatus and associated goods	Single	
		51.43	Wholesale of electrical household appliances and radio and television goods	Shared	
		52.45	Retail sale of electrical household appliances and radio and television goods	Shared	
	2. Computers and Equipment	30.02	Manufacture of computers and other information processing equipment	Single	
		51.84	Wholesale of computers, computer peripheral equipment and software	Single	
		51.85	Wholesale of other office machinery and equipment	Shared	
		71.33	Renting of office machinery and equipment, including computers	Single	
	3. Musical Instruments	36.30	Manufacture of musical instruments	Single	
		52.45	Retail sale of electrical household appliances and radio and television goods	Shared	
	4. Photocopiers	30.01	Manufacture of office machinery	Shared	
		51.85	Wholesale of other office machinery and equipment	Shared	
	5. Photographic and Cinematographic Instruments	33.40	Manufacture of optical instruments and photographic equipment	Single	
	6. Blank Recording Material	24.64	Manufacture of photographic chemical material	Single	
		24.65	Manufacture of prepared unrecorded media	Single	
	7. Paper	21.11	Manufacture of pulp	Single	
		21.12	Manufacture of paper and paperboard	Single	
		24.30	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Single	
		29.55	Manufacture of machinery for paper and paperboard production	Single	
		51.56	Wholesale of other intermediate products	Single	
	III. Partial CIs	1. Apparel, Textiles and Footwear	17.60	Manufacture of knitted and crocheted fabrics	Single
			17.71	Manufacture of knitted and crocheted hosiery	Single
			17.72	Manufacture of knitted and crocheted pullovers, cardigans and similar articles	Single
			18.10	Manufacture of leather clothes	Single
18.21			Manufacture of workwear	Single	
18.22			Manufacture of other outerwear	Single	
18.23			Manufacture of underwear	Single	
18.24			Manufacture of other wearing apparel and accessories n.e.c.	Single	
19.30			Manufacture of footwear	Single	
29.54			Manufacture of machinery for textile, apparel and leather production	Single	
51.42			Wholesale of clothing and footwear	Single	
52.41			Retail sale of textiles	Single	
52.42			Retail sale of clothing	Single	
52.43	Retail sale of footwear and leather goods	Single			

Table 43: Complete Copyright Activities List Used in the Study (continued)

Category	Groups	NACE 1.1	Description	Attribution
III. Partial CIs (continued)	2. Jewellery and Coins	36.21	Striking of coins	Single
		36.22	Manufacture of jewellery and related articles n.e.c.	Single
		36.61	Manufacture of imitation jewellery	Single
	3. Other Crafts	36.63	Other manufacturing n.e.c.	Single
	4. Furniture	36.11	Manufacture of chairs and seats	Single
		36.12	Manufacture of other office and shop furniture	Single
		36.13	Manufacture of other kitchen furniture	Single
		36.14	Manufacture of other furniture	Single
		36.15	Manufacture of mattresses	Single
		51.85	Wholesale of other office machinery and equipment	Shared
		52.44	Retail sale of furniture, lighting equipment and household articles n.e.c.	Shared
		5. Household Goods, China and Glass	20.51	Manufacture of other products of wood
	20.52		Manufacture of articles of cork, straw and plaiting materials	Single
	26.12		Shaping and processing of flat glass	Single
	26.13		Manufacture of hollow glass	Single
	26.14		Manufacture of glass fibres	Single
	26.15		Manufacture and processing of other glass, including technical glassware	Single
	26.21		Manufacture of ceramic household and ornamental articles	Single
	26.22		Manufacture of ceramic sanitary fixtures	Single
	26.23		Manufacture of ceramic insulators and insulating fittings	Single
	26.24		Manufacture of other technical ceramic products	Single
	26.25		Manufacture of other ceramic products	Single
	26.26		Manufacture of refractory ceramic products	Single
	28.75		Manufacture of other fabricated metal products n.e.c.	Single
	31.50		Manufacture of lighting equipment and electric lamps	Single
	52.44		Retail sale of furniture, lighting equipment and household articles n.e.c.	Shared
	6. Wall Coverings and Carpets	17.51	Manufacture of carpets and rugs	Single
		21.24	Manufacture of wallpaper	Single
		21.25	Manufacture of other articles of paper and paperboard n.e.c.	Single
	7. Toys and Games	36.50	Manufacture of games and toys	Single
	8. Architecture, Engineering, Surveying	74.20	Architectural and engineering activities and related technical consultancy	Single
	9. Interior Design	74.87	Other business activities n.e.c.	Shared
	10. Museums	52.50	Retail sale of second-hand goods in stores	Shared
		92.52	Museums activities and preservation of historical sites and buildings	Shared

Table 43: Complete Copyright Activities List Used in the Study (continued)

Category	Groups	NACE 1.1	Description	Attribution
IV. Non-dedicated support CIs	1. General Wholesale and Retailing	51.11	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	Single
		51.12	Agents involved in the sale of fuels, ores, metals and industrial chemicals	Single
		51.13	Agents involved in the sale of timber and building materials	Single
		51.14	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	Single
		51.15	Agents involved in the sale of furniture, household goods, hardware and ironmongery	Single
		51.16	Agents involved in the sale of textiles, clothing, footwear and leather goods	Single
		51.17	Agents involved in the sale of food, beverages and tobacco	Single
		51.18	Agents specialising in the sale of particular products or ranges of products n.e.c.	Single
		51.19	Agents involved in the sale of a variety of goods	Single
		51.41	Wholesale of textiles	Single
		51.43	Wholesale of electrical household appliances and radio and television goods	Shared
		51.44	Wholesale of china and glassware, wallpaper and cleaning materials	Single
		51.45	Wholesale of perfume and cosmetics	Single
		51.46	Wholesale of pharmaceutical goods	Single
		51.47	Wholesale of other household goods	Single
		51.81	Wholesale of machine tools	Single
		51.82	Wholesale of mining, construction and civil engineering machinery	Single
		51.83	Wholesale of machinery for the textile industry and of sewing and knitting machines	Single
		51.85	Wholesale of other office machinery and equipment	Shared
		51.86	Wholesale of other electronic parts and equipment	Single
		51.87	Wholesale of other machinery for use in industry, trade and navigation	Single
		51.88	Wholesale of agricultural machinery and accessories and implements, including tractors	Single
		51.90	Other wholesale	Single
		52.11	Retail sale in non-specialised stores with food, beverages or tobacco predominating	Single
		52.12	Other retail sale in non-specialised stores	Single
		52.45	Retail sale of electrical household appliances and radio and television goods	Shared
		52.48	Other retail sale in specialised stores	Single
		52.50	Retail sale of second-hand goods in stores	Shared
		52.61	Retail sale via mail order houses	Single
		52.62	Retail sale via stalls and markets	Single
		52.63	Other non-store retail sale	Single
		71.40	Renting of personal and household goods n.e.c.	Single

Table 43: Complete Copyright Activities List Used in the Study (continued)

Category	Groups	NACE 1.1	Description	Attribution	
IV. Non-dedicated support CIs (continued)	2. General Transportation	60.10	Transport via railways	Single	
		60.21	Other scheduled passenger land transport	Single	
		60.22	Taxi operation	Single	
		60.23	Other land passenger transport	Single	
		60.24	Freight transport by road	Single	
		61.10	Sea and coastal water transport	Single	
		61.20	Inland water transport	Single	
		62.10	Scheduled air transport	Single	
		62.20	Non-scheduled air transport	Single	
		63.11	Cargo handling	Single	
		63.12	Storage and warehousing	Single	
		63.21	Other supporting land transport activities	Single	
		63.22	Other supporting water transport activities	Single	
		63.23	Other supporting air transport activities	Single	
		63.30	Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	Single	
		63.40	Activities of other transport agencies	Single	
		64.11	National post activities	Single	
		64.12	Courier activities other than national post activities	Single	
			3. Telephony and Internet	64.20	Telecommunications

4.4 Shared Copyright Activities

This section details how shared activities are distributed to different copyright industries. There are nine shared codes that are repeatedly used in the above list. This is consistent with the WIPO Guide Annex I, even although it is not explicit in Annex III of the WIPO Guide. In fact, much of the work extending the code list of NACE Rev.1.1 has been carried out in the Bulgarian study²² of the copyright industry conducted in 2007.

Table 44 portrays these nine shared economic activities attributed to the copyright activities groups. Groups are referred to in compliance with the codes introduced in Table 43.

²²'The Economic Contribution of Copyright-Based Industries in Bulgaria.' May 2007. <http://www.wipo.int/ip-development/en/creative_industry/pdf/1009E-4.pdf>

Table 44: Shared Copyright Activities List

Activity		Group					
Code	Description	First	Second	Third	Fourth	Fifth	Sixth
30.01	Manufacture of office machinery	II.4					
51.43	Wholesale of electrical household appliances and radio and television goods	I.2	I.3	II.1	IV.1		
51.85	Wholesale of other office machinery and equipment	II.2	II.4	III.4	IV.1		
52.44	Retail sale of furniture, lighting equipment and household articles n.e.c.	III.4	III.5				
52.45	Retail sale of electrical household appliances and radio and television goods	I.2	II.1	II.3	IV.1		
52.50	Retail sale of second-hand goods in stores	I.1	III.10	IV.1			
74.87	Other business activities n.e.c.	I.1	I.2	I.3	I.7	I.9	III.9
92.31	Artistic and literary creation and interpretation	I.1	I.2	I.3	I.7		
92.52	Museums activities and preservation of historical sites and buildings	I.7	III.10				

In the next step, the attribution factors, which give the exact percentage contribution to each group, have to be derived. Depending on the derived estimation, the shares may or may not add up to 1. The nine economic activities described in Table 44 have to be distributed to corresponding copyright industry categories and subcategories. It was necessary to estimate two parameters (the share for value added and another share for employment) because the current study focuses on the value added and employment measures. For the foreign trade measure, the value added sharing pattern was applied. The major source for analysing the shares was the Bulgarian study referred to above, where calculations were carried out for 2003 and 2005. In this analysis, the Bulgarian calculations of 2005 were taken as a basis for Lithuanian estimations.

Table 44 also gives a useful summary of the NACE 1.1 incompatibility with the needs of copyright economic analysis. The most 'awkward' code is 74.87 with the rank of six. Slightly less awkward but still incompatible with copyright analysis needs are four codes: 51.43, 51.85, 52.45, and 92.31. The other codes could be considered as being less incompatible with the needs of copyright economic analysis.

It might seem peculiar to find code 30.01 in Table 44 as it is attributed to one group (II.4). There is a very practical reason for this. There are two codes in Table 44 that are attributed to group II.4 with different sharing percentages. As copyright factors are established for groups, but not for codes, in order to capture the attribution of different percentages the code should be treated as shared. In fact, it is shared between the copyright industry and the rest of the economy. It might also be appropriate to observe that some of Photocopiers category content might be classified under code 22.22, but we attribute this code to group I.1 in full. Assigning some part of 52.44 to the Photocopiers category is possible only theoretically, but practically highly unlikely. Accordingly, this code is not assigned to group II.4.

There was no need or justification to estimate a parameter which would allow the distribution of the number of enterprises within a specific copyright industry activity, as was attempted in the Bulgarian study. This study does not attempt to address the structural business statistics of the copyright industry. The specific enterprise might not be attributable to any copyright industry subgroup at all, if it conducts these activities only as secondary activities. Nevertheless, we calculated the number of enterprises in I.1, I.6 and I.8 group applying copyright factors, but fortunately these codes do not appear in Table 44.

The Bulgarian study managed to establish the distribution of shared copyright economic activities. The summary of these estimates is provided in Table 45.²³

²³ More information on the derivation of these estimates may be found in the Bulgarian study.

Table 45: Distribution of Shared Copyright Economic Activities in Bulgaria, 2005

Industries, economic activities	Value added		Employment	
	thousand BGN	%	number employed	%
I.2	7,558	0.6		0.6
I.3	6,753	0.6		0.6
II.1	415,132	33.8		33.8
IV.1		65.0		65.0
51.43	429,443	100.0		100.0
II.2	2,766	37.0	139	16.0
III.4	4,700	63.0	730	84.0
IV.1	0	0.0	0	0.0
51.85	7,466	100.0	869	100.0
III.4	18,673	42.6	4,782	57.2
III.5	25,194	57.4	3,575	42.8
52.44	43,867	100.0	8,357	100.0
I.2	16,425	2.4		2.4
II.1	216,126	30.9		30.9
II.3	12,009	1.7		1.7
IV.1		65.0		65.0
52.45	244,560	100.0		100.0
I.1		10.0		10.0
III.9		10.0		10.0
IV.1		80.0		80.0
52.50		100.0		100.0
I.1		5.1		12.8
I.2		5.6		3.5
I.3		13.5		5.9
I.7		10.8		12.8
74.87		35.0		35.0
I.1	1,628	20.5	311	51.2
I.2	1,781	22.4	85	14.0
I.3	4,285	54.0	144	23.7
I.7	248	3.1	67	11.0
92.31	7,942	100.0	607	100.0
I.7		80.0		80.0
III.9		20.0		20.0
92.52		100.0		100.0

The Lithuanian and Bulgarian economies share a great similarity in their recent economic history and their economic structure; therefore, the Bulgarian shares of the copyright activities would seem to be a very good proxy for defining the Lithuanian distribution. It was decided that Bulgarian shares are appropriate in six out of nine cases when defining Lithuanian sharing patterns. Two other distributions, for activities 74.87 and 52.50, were modified, and distribution for 30.01 was introduced, if compared to Bulgarian estimates.

Activity 74.87 is broken down into six subcategories while the Bulgarian study broke it down into four subcategories. The four components of the 74.87 were transferred from the Bulgarian study. In order to estimate I.9, all copyright collecting societies were surveyed. The societies have been surveyed for their full time employment figures during 2000-2008. Consequently, the employment share of I.9 in 74.87 was calculated for each year. Moreover, the same shares were used to single out the I.9 component for value added as well. The collected data for group I.9 and estimates are presented in Table 46.

Table 46: Employment of Copyright Collecting Societies in Lithuania

Activity, industry, society*	2000	2001	2002	2003	2004	2005	2006	2007	2008
LATGA-A	26	30	35	34	35	36	38	35	38.5
AGATA	3	7	10	14	17	19	18	19	19
Copyright collecting societies	29	37	45	48	52	55	56	54	57.5
74.87	716	731	945	1082	1111	1118	1121	1265	1460
Share of I.9 in 74.87, %	4.1	5.1	4.8	4.4	4.7	4.9	5.0	4.3	3.9

* Only two out of four currently operating collecting societies were operating in the period of 2000-2008.

The Interior Design (III. 9) component in code 74.87 was estimated as being 7 percent for Lithuania. This was derived from expenditure approach considering firms and households expenditures.

The estimates of the copyright content of activity 52.50 in the Lithuanian economy were significantly reduced when compared to the Bulgarian estimates. The Bulgarian study assumed that copyright economic activities made up 20 percent (10 percent + 10 percent) of 52.50. This is too high for the Lithuanian economy. The shares of sales of second-hand books and antiques were also reduced from the Bulgarian estimate of 10 percent to 3 and 5 percent respectively in the Lithuanian case. The major part of a retail sale of second-hand goods in stores consists of the resale of second-hand automobile parts and second-hand clothes.

The remaining sharing differences with the Bulgarian study are due to the Photocopiers group on the Lithuanian list according to the Guide. The Bulgarian shares of value added and employment are applied for code 51.85 only after 5 percent are assigned to group II.4. Moreover, we treat the code 30.01 as a shared activity by assigning 5 percent to group II.4. We consistently apply the same sharing factor to the production and wholesale categories.

Altogether, Table 47 presents the Lithuanian estimates of shared economic activities applied to the nine shared economic activities.

Table 47: Distribution of Shared Copyright Economic Activities in Lithuania, 2000–2008

Industries, economic activities	Distribution	
	Value added, %	Employment, %
II.4	5.0	5.0
30.01	5.0	5.0
I.2	0.6	0.6
I.3	0.6	0.6
II.1	33.8	33.8
IV.1	65.0	65.0
51.43	100.0	100.0
II.2	35.1	15.2
II.4	5.0	5.0
III.4	59.9	79.8
IV.1	0.0	0.0
51.85	100.0	100.0



Table 47: Distribution of Shared Copyright Economic Activities in Lithuania, 2000–2008 (continued)

Industries, economic activities	Distribution	
	Value added, %	Employment, %
III.4	42.6	57.2
III.5	57.4	42.8
52.44	100.0	100.0
I.2	2.4	2.4
II.1	30.9	30.9
II.3	1.7	1.7
IV.1	65.0	65.0
52.45	100.0	100.0
I.1	3.0	3.0
III.9	5.0	5.0
IV.1	92.0	92.0
52.50	100.0	100.0
I.1	5.1	12.8
I.2	5.6	3.5
I.3	13.5	5.9
I.7	10.8	12.8
I.9	3.9-5.1	3.9-5.1
III.10	7.0	7.0
74.87	45.9-47.1	45.9-47.1
I.1	20.5	51.2
I.2	22.4	14.0
I.3	54.0	23.7
I.7	3.1	11.0
92.31	100.0	100.0
I.7	80.0	80.0
III.9	20.0	20.0
92.52	100.0	100.0

Although this study derives annual time series for all copyright industries, the shared activities constitute only a small fraction of overall copyright activities. Therefore, there was no particular analytical need to derive individual copyright estimates for each year. In the case of the copyright collecting societies, there was an apparent necessity to conduct a specific survey. Taking this opportunity, the annual data for the copyright collecting societies better captures the dynamics over the decade than the other seven shared economic activities.

5. Conclusion and Recommendations

This part sums up the major conclusions of the analysis of the Lithuanian copyright industries. Based on these conclusions, the recommendations aim to reinforce the growth of the copyright and related rights industries in Lithuania and lay foundations for the development of the national monitoring system of the copyright industries.

The Lithuanian copyright and related rights industry made up around 5 percent of the country's economy over the last decade, hovering around this number depending on the measure (value added, employment, trade) and the specific year. The copyright industry in Lithuania is more important in terms of gross value added than in terms of employment, as it is more productive than the economy in general. The contribution of creative industries to the country's foreign exports falls close to its contribution to the national employment. The core copyright industry contributes around 3 percent to the national employment. The largest copyright industry in 2000–2008 was Press and Literature with a little less than 1 percent contribution at the end of the period, while Software and Databases has rapidly been catching up.

On the basis of the detailed statistical analysis of the value added of economic activities, it was established that, in 2008, the Lithuanian copyright industry comprised 5.40 percent of gross value added. Moreover, more than half of it, 2.79 percent, comprised the core copyright industry. The interdependent copyright industry, which is the section most closely related to the core copyright section, made up 1.27 percent of the national economy. The partial copyright industry created 0.26 percent of the value added in the economy. Finally, the part of the economy which serves the copyright industry, which is traditionally classified as the non-dedicated support industry, comprised 1.07 percent of the gross value added. The numbers for 2008 were derived from the structural business statistics by reconciling them with the national accounts data.

The copyright industry generated less employment than value added – in 2008, employment in the Lithuanian copyright industry comprised 4.92 percent of total employment (compared to 5.40 percent of the gross value added). Moreover, the largest part of employment, namely 3.03 percent, was generated by the core copyright industry. The interdependent copyright industry made up 0.80 percent, while the partial copyright industry created 0.26 percent of overall employment. Finally, the non-dedicated support copyright industry comprised 0.82 percent of employment.

The third investigated feature of the copyright industry in Lithuania was its contribution to exports of goods and services. The contribution to exports was the lowest measure compared to employment and value added. It made up 4.68 percent in 2008. Since the copyright economy comprises 5.40 percent of value added, it shows that the domestic role of the copyright industry is higher than its ability to contribute revenues from abroad.

All in all, the copyright industry was less cyclical than the overall national economy during the last business cycle. When the economy is overheating, the construction sector and sectors related to it are prone to excessive expansion. As a consequence, during the so-called bubble years, the copyright economy makes less of an economic contribution in percentage terms. By contrast, during recession or hardship years, the copyright sector makes a greater contribution to the economy. To some extent, the copyright economy contributes to a less pronounced business cycle in Lithuania.

Legal regulation of the copyright and related rights activities is well-advanced and is in conformity with the provisions of EU directives and international agreements. Therefore, it does not pose any major legal obstacles to the development of any economic activities related to copyright. At this stage of development, efforts in legal regulation have to be concentrated on issues of legal enforcement and legal implementation.

The study of the Lithuanian copyright and related rights industry reveals several areas where both national and international practices might be improved. The recommendations below address how to conduct follow-up studies in the most efficient way.

Recommendations to **the Ministry of Culture of the Republic of Lithuania** and other national institutions:

- (i) The implementation of a follow-up copyright economy study, taking the funding needed into account. The next study should cover years starting with 2009.
- (ii) The implementation of the next national study should be timed after methodological work is completed which relates the European classification of economic activities NACE Rev.2 with the relevant classification of the copyright industry. On the other hand, the next study should be conducted no later than when the NACE Rev.2 is updated again. As the updates in the classification are made approximately once in a decade, the periodicity of studies should be less than a decade. If the funding is available, it would be more appropriate to conduct it every five years. Taking costs and merits into account, an annual conduct of studies seems excessive.
- (iii) A national statistical compilation of the Copyright and Related Rights Economic Statistics every five or ten years. The Lithuanian Statistics Department or the Ministry of Culture could execute this task. It would be extremely beneficial to incorporate such a study into the Lithuanian Programme of Official Statistics, whereby resolving confidentiality constraints, which have significantly burdened the conduct of this current study. It would be even more useful to produce annual data for the past five years rather than to compile statistics only for a current year.
- (iv) The production of a report regarding economic and legal developments of the copyright industry (e.g., annual or every five years) based on statistical data collected on the copyright sector. If deemed necessary, light touch annual studies could be carried out which could focus on some narrow subclasses of the copyright and related rights industry, which gain specific national attention.
- (v) Bearing in mind that this study revealed the sub-industries of the copyright economy to be extremely dynamic, it seems appropriate that the Ministry of Culture conducts specific surveys of the most dynamic sectors (both expanding and contracting) addressing the issues of legal regulation, legal implementation and enforcement of copyright law.
- (vi) To pay close attention to methodological developments coordinated by WIPO with the aim of ensuring that future national research is compatible with new developments.

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Annexes

Annex 1. Data Imputation and Estimation

The collected statistical datasets for the copyright study had three areas of incompleteness. Firstly, some data for an entire year was missing. Secondly, in some time series, some values were present and others were missing. Thirdly, some time series did not have any single value at all. The first issue originated from peculiarities of the Lithuanian Programme of Official Statistics, while the second and the third were due to confidentiality reasons.

The authors managed to impute data values with appropriate statistical methods, which are explained in this annex, but not in the main text, due to the extremely technical character of the statistical methods applied. As most previous national studies have lacked transparent presentations of these techniques or sometimes even omitted any reference to them, it is evident that missing values is a recurrent problem, especially for smaller economies, so the authors anticipate that this annex will be of special interest for those willing to conduct studies themselves.

As this study attempted to cover the copyright industry over the period 2000–2008, both value added and employment data were desirable for these years. The values for value added were imputed for 2000–2008, for employment, however, for 2001–2008.

Fortunately, datasets for foreign trade in goods and for foreign trade in services did not have any missing values. The BoL data from 2004 were collected according to a more detailed breakdown than in previous years, but the datasets did not contain confidential values. Thus trade in goods and services was analysed for 2004–2008, because starting from 2004 the dataset on trade in services was complete. It did not require any imputations of the trade data altogether.

An effective imputation is never trivial to construct; nevertheless, its simplicity is a greatly desirable feature at the same time, allowing users to understand reliability of estimates.

1. Imputation of Basic Prices for Entire Year

As explained previously, the LDS had not provided value added data at basic prices for 2008 at all; thus, it had to be imputed. Fortunately, in the structural business statistics, value added was available at factor cost. The difference between factor cost and basic price is relatively minor for current purposes. The basic price includes taxes on production minus subsidies on production. It is natural to assume that the government intervention level stayed approximately similar in 2008 compared with 2007. This was used for imputation.

Assuming that factor costs and basic prices were growing at the same rate, the value added at basic prices for 2008 was estimated in the following way:

$$VA_{BP,2008} = VA_{BP,2007} \cdot \frac{VA_{FC,2008}}{VA_{FC,2007}},$$

where VA_{BP} denotes value added at basic prices, and VA_{FC} denotes value added at factor costs. In other words, it is assumed that net taxes on production, i.e., taxes on products minus subsidies on production, were changing proportionally to the factor costs for copyright industries. It is appropriate to mention that there were no essential policy changes in 2008 in taxation or in policies related to subsidies.

2. Imputation of single missing values in the datasets

The LDS dataset originating from structural business statistics had a great number of missing values, especially at four digit level, due to confidentiality requirements. If in some copyright economic activities with four digit NACE codes less than three enterprises were operating, the values were not provided. Such values were imputed with appropriate linear methods which fit the purposes of the study. These linear methods were deployed for two indicators lying at the focal point of this study: value added at basic prices, and employment in full time units. In addition, imputations were calculated for output of economic activities.

The initially available incomplete structural statistics dataset was fortunately complete for two digits of NACE codes, partially complete for three digits of the NACE code, and incomplete for some four digit codes. The initial dataset had all the values for a code XY, for any code XYZW belonging to the CCAL. Moreover, each code XYZ had at least one value for some year. There were ten economic activities at the four digit level which had no values at all, for value added or employment.

To describe a method formally, some mathematical notation has to be employed. Let $XYZW$ be a four digit code, where X, Y, Z, W denote first, second, third and fourth digit accordingly. Let $I_{year}(XYZW)$ denote a value of an indicator for an activity $XYZW$ in a specific year measured in thousands of LTL or full time employment units depending on what is under imputation. Let $I_{year}^{Relative}(XYZW)$ denote a value of an indicator for activity $XYZW$ in a specific year measured as a share in percentage points, which it has compared to its higher position $I_{year}(XYZ)$.

In order to impute values for three digit NACE codes, first, the indicator was brought into a relative form, second, it was interpolated and third, it was transformed back into an absolute form. At the final step, the value for $I_{year}(XYZ)$ is imputed.

Thus, starting with the first step, it is transformed into a relative form:

$$I_{year}^{Relative}(XYZ) = \frac{I_{year}(XYZ)}{I_{year}(XY)}$$

Second, it is interpolated or extrapolated, depending upon which values are missing. For interpolation, if between two values $I_{year}^{Relative}(XYZ)$ and $I_{year+n}^{Relative}(XYZ)$ all $n-1$ values are missing, an interpolation is linear:

$$I_{year+i}^{Relative}(XYZ) = I_{year}^{Relative}(XYZ) + \frac{i}{n} \cdot (I_{year+n}^{Relative}(XYZ) - I_{year}^{Relative}(XYZ)).$$

For extrapolation, a constant function $I_{year\pm i}^{Relative}(XYZ) = I_{year}^{Relative}(XYZ)$ is employed, using a plus or minus sign depending on a direction of an extrapolation.

After interpolation and extrapolation of values in a relative form are completed, the absolute values are calculated in an obvious way:

$$I_{year+i}(XYZ) = I_{year+i}^{Relative}(XYZ) \cdot I_{year+i}(XY).$$

The imputed values have a substantial deficiency in that they are inconsistent with a value $I_{year+i}(XY)$. This obstacle is resolved by a reconciliation procedure, which adjusts these values in the following way. All the imputed three digit values out of $I_{year+i}(XY)$ are added up to get $Estimates(I_{year+i}(XY))$. Separately, by subtracting from $I_{year+i}(XY)$ all the estimated three digit values a sum of these estimates is calculated, which is denoted as a $Sum_of_imputations(I_{year+i}(XY))$. To receive a consistent set of imputations, the values have to be adjusted with regard to adding up in the following way:

$$I_{year+i}^{consistent}(XYZ) = I_{year+i}(XYZ) \cdot \frac{Estimates(I_{year+i}(XY))}{Sum_of_imputations(I_{year+i}(XY))}$$

By this method, all the values for three digits were successfully imputed. Moreover, the same linear method allowed imputing all the values for four digit codes with an exception for ten economic activities. The remaining ten economic activities had to be dealt with separately by a completely different method, which is explained in the next section.

3. Imputation of Entire Time Series

As the LDS structural business statistics dataset did not entail any of the ten time series at four digit level at all, they had to be imputed relying on publicly available data. In fact, this imputation was the last step in designing a complete structural statistics dataset. In the dataset provided by the LDS, the empty time series for which all data values were missing included the following NACE codes: 2111, 2124, 2464, 2465, 2614, 2622, 2623, 2624, 2955, and 3621. For purposes of this study it was sufficient to impute values for 2111,

2124, 2464+2465, 2614+2622+2623+2624, 2955, and 3621 because the third and fourth group fall into the same category of the CCAL. For purposes of this study, there was no need to decompose this group any further as it fell into the same copyright category. Thus, only six values needed to be imputed instead of ten.

Firstly, the LDS agreed to provide data separately for both aggregated groups: $G1=2614+2622+2623+2624$ and $G2=2111+2124+2464+2465+2955+3621$. The data for group G1 were incomplete, but still could be imputed by the method described in the previous section. The group G2 was heterogeneous and had to be decomposed further.

Secondly, a private data vendor engaged in the collection of publicly available business data was approached. The Lithuanian establishment 'Credit Reform' kindly agreed to provide data which the company sells on the market. As annual financial statements of firms are publicly available, the data vendor collects, stores and sells on the market this information. It was fortunate that the data vendor not only tracked output and employment but also the four digit NACE code as well. Although it was a cumbersome procedure to find out what was really needed (the database had to be searched through looking for enterprises within a special code), the data were received for companies falling into all six activities: 2111, 2124, 2464, 2465, 2955, and 3621. Moreover, since only one enterprise was involved in economic activity for the category 3621 (striking of coins), this enterprise was asked to provide its data. The publicly available data for separate activities, when added up, were relatively close in matching the LDS data provided for the entire group G2. The discrepancies between the totals of G2 data collected by the research team and the LDS totals for G2 were around 10 percent. Consequently, the disaggregated data for economic activities were adjusted in order to comply with the LDS aggregated data. The derived employment estimations are presented below.

Table A: Imputed employment values (full time equivalents)

Economic activity	2000	2001	2002	2003	2004	2005	2006	2007	2008
2111	0	0	0	0	0	0	1	0	1
2124	0	0	0	0	0	0	0	0	0
2464+2465	0	0	0	2	4	3	4	38	69
2955	55	85	114	163	188	210	174	156	149
3621	47	45	45	46	50	53	63	65	76

Source: Survey and estimations by the Authors

Although the imputation was rather straightforward for employment, it was much more complex for value added. It was possible to impute only output for these economic activities. On the basis of output values, the value added at basic prices was estimated, applying linear methods.

4. Imputing National Accounts Data

This section describes a step of deriving value added and employment data that is consistent with national accounts methodology. In fact, this is an essential request of the WIPO Guide as it seeks to achieve comparability of national copyright studies. Practically speaking, this might be achieved only by reconciling all the data with national accounts definitions. The national accounts are harmonised between countries to a large extent. The structural business statistics, a primary source for this study, is inconsistent with national accounts data and, still worse, rather different, non-harmonised in every country. This section describes the method which provides value added and employment estimates for the copyright activities which are consistent with national accounts data.

However peculiar it might appear, this last step started with an imputation of the national accounts data itself for 2008. The reason for this was the fact that the supply and use tables for 2008 were released according to the more recent NACE Rev.2 which is not comparable for the purposes of this study. The two digit values of 2008 for NACE Rev.1.1 had to be imputed. Fortunately, the LDS still disseminates value added data for two digit codes, according to NACE Rev.1.1, at market prices in the framework of national accounts.

The imputation method applied relies on the assumption that, in 2008, the value added at basic prices grew at the same rate as market prices for two digit economic activities. Every single value at basic prices for two

digit code in 2008 was computed by multiplying a corresponding value added at basic prices in 2007 by a corresponding growth rate for market values.

$$Estimate_{-}(VA_{2008}^{Basic_prices}) = VA_{2007}^{Basic_prices} * \frac{VA_{2008}^{Market_prices}}{VA_{2007}^{Market_prices}}$$

After this step, it should be ensured that estimations are consistent with regard to adding up to gross value added. The following reconciliation of derived estimates produces consistent values for two digit codes:

$$(VA_{2008}^{Basic_prices}) = Estimate_{-}(VA_{2008}^{Basic_prices}) * \frac{\sum VA_{2008}^{Basic_prices}}{\sum Estimate_{-}(VA_{2008}^{Basic_prices})}$$

Although national accounts data are subject to constant revisions, the supply and use tables are never revised in Lithuania, or in other countries. For this reason, the analysis in this study of the copyright economy entirely relies upon the value added data from supply and use tables. As to not analysing 2009 data, it should be mentioned that supply and use tables for 2009 were not available during the research and are planned to be released only at the end of 2013.

5. Data Reconciliation with National Accounts

In this section, the final estimates of value added and employment are presented which are consistent with national accounts framework. Hitherto the methodology has explained how to calculate a complete dataset for structural business statistics. By contrast, the value added in the framework of national accounts was derived only for two digit codes. Moreover, if all the four digit sub-values from the structural business statistics for a particular two digit value are added up, then this estimate stemming from the structural business statistics differs from the corresponding value derived from the national accounts framework. To produce the copyright industry contribution to the economy, value added at basic prices in the national accounts framework has to be calculated for each four digit NACE code, ensuring consistency of aggregation.

The natural way to follow is to reconcile structural business statistics data $VA^{Basic_prices}(XYZW)$ at hand with two digit totals $VA_{NA_Basic_prices}(XY)$ from national accounts. The procedure is run for each two digit code XY and its sub-activity $XYZW$ deriving national accounts consistent estimates of value added for each four digit NACE code $VA_{NA_Basic_prices}(XYZW)$:

$$VA_{NA_Basic_prices}(XYZW) = VA^{Basic_prices}(XYZW) * \frac{VA_{NA_Basic_prices}(XY)}{VA^{Basic_prices}(XY)}$$

After this step, all the required value added data, consistent with national accounts, are estimated.

A similar adjustment is needed for the structural business statistics employment data. In order to properly reflect copyright economy employment with regard to total employment in the economy, the employment at four digit NACE codes level had to be estimated. It has to be kept in mind that the structural business statistics do not reflect all the employment in the economy. The imputation procedure for employment data follows entirely the same procedure as the one for value added, which is captured in the formula above.

$$Employment_{NA}(XYZW) = Employment^{SBS}(XYZW) * \frac{Employment_{NA}(XY)}{Employment^{SBS}(XY)}$$

Instead of the value added, the employment figure is substituted. The place of the value added from structural business statistics takes the employment in full time units from structural business statistics $Employment^{SBS}(...)$ (item five according to the list in the section on data). $Employment_{NA}(...)$ for two digit codes denotes the indicator 'Average number of employees by sector in full time units, economic activity (NACE 1.1)' for 2000-2008 (item nine according to the same list).

6. Value Added at Market Prices

In this section, it is explained how estimates of the value added at market prices are derived from the value added at basic prices, net taxes on products and value added tax. This step is needed to compare value added aggregates with GDP, hence there is a need to estimate value added at market prices at four digit NACE level. Needless to say, this information is unavailable both in the structural business statistics and in the national accounts. Firstly, the net taxes on products (which does not include VAT) is examined; secondly, the VAT itself.

Net taxes on products broken down to two digit level by economic activity are made available in Lithuania every five years, for this study, the 2005 data. Specifically, this information for the Lithuanian economy is available in the supply and use table at basic prices for 2005. Moreover, in national accounting as a rule, net taxes on products are calculated annually for an economy as a whole without any breakdown. Only once in five years, two and a half years after the accounting period, is a two digit level distribution of net taxes on products disseminated in supply and use tables. This table is compiled every five years, together with an input-output table compilation.

Given this information, the net taxes on products are estimated for every year in the following way:

$$NetTaxes_on_products_{year}(XY) = NetTaxes_on_products_{year} \cdot \frac{NetTaxes_on_products_{2005}(XY)}{NetTaxes_on_products_{2005}}$$

Supply and use tables are designed in a way that only a minor part of the value added tax amount is shared between economic activities. This is the case in all EU countries' national statistics. In these tables, the total VAT amount is disaggregated into three major parts: (i) non-deductible VAT; (ii) VAT paid by households (also non-deductible), and (iii) VAT of gross capital formation. The fourth residually minor part relates to revaluations and is not relevant to the current analysis. The first part on non-deductible VAT may be shared among economic activities while (ii) and (iii) cannot.

The information on non-deductible VAT is available for every year in a corresponding annual use table from SUT in the national accounts. A corresponding cell we denote as $Non_deductible_VAT_{year}(XY)$.

Having assigned to economic activities net taxes on products and non-deductible VAT, it is a trivial operation to add up both taxes for each economic activity. It is denoted as $NetTaxes(XY)$, where argument XY is an economic activity two digit code:

$$NetTaxes_{year}(XY) = NetTaxes_on_products_{year}(XY) + Non_deductible_VAT_{year}(XY).$$

Since it is always obvious which year is referred to, a sub-index referring to a particular year is omitted below.

Assuming that net taxes spread out homogenously across the different constituents of four digit economic activity, the value added estimates at market prices are obtained at the four digit level:

$$NetTaxes(XYZW) = NetTaxes(XY) \cdot \frac{VA_{NA_Basic_prices}(XYZW)}{VA_{NA_Basic_prices}(XY)},$$

where the value added variables were defined in the previous section and the net taxes on products $NetTaxes(XY)$ were defined above. By having net taxes on products at the four digit level, value added at market prices can be finally calculated:

$$VA_{NA_market_prices}(XYZW) = VA_{NA_Basic_prices}(XYZW) + NetTaxes(XYZW).$$

It is a rather straightforward corollary that the estimated value added at market prices at the four digit level is consistent with the aggregation value added at the two digit level.

For employment numbers nothing is required as it is measured in full time equivalents. This completes exposition of imputation and estimation methods.

Annex 2. Value Added of Copyright Industry, LTL million

Category	Subcategory	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	579	620	460	623	690	687	761	800	870
	2. Music, Theatrical Productions, Operas	29	36	26	34	46	67	62	82	151
	3. Motion Picture and Video	93	88	84	89	78	68	69	87	150
	4. Radio and Television	167	197	257	207	202	236	144	224	412
	5. Photography	18	17	17	21	22	20	17	17	17
	6. Software and Databases	125	246	208	253	304	366	400	565	687
	7. Visual and Graphic Arts	11	13	18	17	17	20	17	22	33
	8. Advertising Services	120	114	152	220	233	258	328	417	467
	9. Copyright Collecting Societies	2	3	5	3	3	4	4	4	5
1. Core Total		1,144	1,334	1,227	1,467	1,596	1,726	1,802	2,219	2,792
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	175	214	245	248	290	300	365	387	384
	2. Computers and Equipment	67	90	93	105	170	160	217	255	340
	3. Musical Instruments	2	3	3	2	2	5	3	4	2
	4. Photocopiers	2	2	2	3	3	3	3	5	11
	5. Photographic and Cinematographic Instruments	9	42	11	11	13	14	16	20	22
	6. Blank Recording Material	0	0	0	0	0	0	0	12	60
	7. Paper	73	92	106	171	223	233	256	258	448
2. Interdependent Total		328	442	459	539	701	714	860	941	1,267
3. Partial	1. Apparel, Textiles and Footwear	8	9	7	8	9	9	9	10	9
	2. Jewellery and Coins	2	2	3	3	5	7	10	9	17
	3. Other Crafts	6	8	10	14	19	25	30	33	50
	4. Furniture	18	21	25	31	43	45	57	65	71
	5. Household Goods, China and Glass	1	1	1	1	2	2	2	3	3
	6. Wall Coverings and Carpets	0	0	0	0	0	0	0	0	0
	7. Toys and games	0	2	1	2	2	2	3	3	5
	8. Architecture, Engineering, Surveying	37	45	41	49	46	55	66	89	101
	9. Interior Design	0	0	0	0	0	0	0	0	0
	10. Museums	2	2	2	2	2	3	3	3	5
3. Partial Total		75	91	89	112	128	149	182	214	260
4. Non-dedicated Support	1. General Wholesale and Retailing	154	201	204	222	236	243	284	324	429
	2. General Transportation	143	204	186	247	281	343	381	437	529
	3. Telephony and Internet	63	93	98	101	87	84	90	98	113
4. Non-dedicated Support Total		360	498	488	570	604	670	755	859	1,071
Grand Total		1,907	2,364	2,264	2,688	3,029	3,259	3,598	4,235	5,390

Annex 3. Copyright Industry Contribution to Gross Value Added, %

Category	Subcategory	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	1.48	1.46	1.06	1.27	1.28	1.09	1.03	0.90	0.87
	2. Music, Theatrical Productions, Operas	0.07	0.09	0.06	0.07	0.09	0.11	0.08	0.09	0.15
	3. Motion Picture and Video	0.24	0.21	0.19	0.18	0.14	0.11	0.09	0.10	0.15
	4. Radio and Television	0.43	0.47	0.60	0.42	0.38	0.37	0.20	0.25	0.41
	5. Photography	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.02
	6. Software and Databases	0.32	0.58	0.48	0.52	0.56	0.58	0.54	0.64	0.69
	7. Visual and Graphic Arts	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.02	0.03
	8. Advertising Services	0.31	0.27	0.35	0.45	0.43	0.41	0.45	0.47	0.47
	9. Copyright Collecting Societies	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
1. Core Total		2.92	3.15	2.84	3.00	2.96	2.73	2.45	2.51	2.79
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	0.45	0.50	0.57	0.51	0.54	0.47	0.50	0.44	0.38
	2. Computers and Equipment	0.17	0.21	0.22	0.21	0.32	0.25	0.30	0.29	0.34
	3. Musical Instruments	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
	4. Photocopiers	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01
	5. Photographic and Cinematographic Instruments	0.02	0.10	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	6. Blank Recording Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06
	7. Paper	0.19	0.22	0.24	0.35	0.41	0.37	0.35	0.29	0.45
2. Interdependent Total		0.84	1.04	1.06	1.10	1.30	1.13	1.17	1.06	1.27
3. Partial	1. Apparel, Textiles and Footwear	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
	2. Jewellery and Coins	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02
	3. Other Crafts	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.05
	4. Furniture	0.04	0.05	0.06	0.06	0.08	0.07	0.08	0.07	0.07
	5. Household Goods, China and Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6. Wall Coverings and Carpets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7. Toys and Games	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8. Architecture, Engineering, Surveying	0.10	0.11	0.09	0.10	0.09	0.09	0.09	0.10	0.10
	9. Interior Design	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10. Museums	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Partial Total		0.19	0.21	0.21	0.23	0.24	0.23	0.25	0.24	0.26
4. Non-dedicated Support	1. General Wholesale and Retailing	0.39	0.48	0.47	0.45	0.44	0.38	0.39	0.37	0.43
	2. General Transportation	0.37	0.48	0.43	0.51	0.52	0.54	0.52	0.49	0.53
	3. Telephony and Internet	0.16	0.22	0.23	0.21	0.16	0.13	0.12	0.11	0.11
4. Non-dedicated Support Total		0.92	1.18	1.13	1.17	1.12	1.06	1.03	0.97	1.07
Grand Total		4.87	5.58	5.24	5.50	5.62	5.15	4.89	4.79	5.40

Annex 4. Output of Copyright Industry, LTL million

Category	Subcategory	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	1,034	1,076	938	1,183	1,294	1,319	1,477	1,672	1,817
	2. Music, Theatrical Productions, Operas	53	71	55	95	85	107	144	235	217
	3. Motion Picture and Video	148	133	137	138	117	144	145	260	292
	4. Radio and Television	380	311	338	287	284	315	333	471	536
	5. 5. Photography	31	32	28	29	33	32	28	29	33
	6. Software and Databases	268	371	365	447	501	632	700	947	1,114
	7. Visual and Graphic Arts	26	56	57	43	58	71	78	105	134
	8. Advertising Services	397	392	522	640	746	856	1,018	1,280	1,376
	9. Copyright Collecting Societies	4	7	8	5	8	9	9	9	11
1. Core Total		2,341	2,449	2,447	2,866	3,126	3,484	3,932	5,007	5,529
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	390	442	534	639	779	764	810	789	845
	2. Computers and Equipment	125	152	166	182	236	285	282	377	499
	3. Musical Instruments	3	5	5	4	4	5	4	6	4
	4. Photocopiers	3	3	3	4	4	3	4	8	18
	5. Photographic and Cinematographic Instruments	23	22	27	24	24	24	28	35	38
	6. Blank Recording Material	0	0	0	0	0	0	0	13	36
	7. Paper	173	165	193	306	351	369	387	419	459
2. Interdependent Total		717	789	928	1,159	1,398	1,450	1,516	1,648	1,899
3. Partial	1. Apparel, Textiles and Footwear	17	19	17	17	17	17	18	19	20
	2. Jewellery and Coins	4	5	6	7	11	14	20	23	34
	3. Other Crafts	12	16	21	24	33	39	44	55	58
	4. Furniture	47	52	64	76	100	108	133	159	184
	5. Household Goods, China and Glass	3	3	3	3	4	6	6	7	6
	6. Wall Coverings and Carpets	1	1	1	1	1	0	0	0	0
	7. Toys and Games	3	4	3	4	5	4	4	4	4
	8. Architecture, Engineering, Surveying	54	60	63	97	79	94	103	128	160
	9. Interior design	0	1	1	0	1	1	1	1	1
	10. 1Museums	3	6	6	5	7	8	9	12	15
3. Partial Total		146	165	184	233	256	289	339	410	482
4. Non-dedicated Support	1. General Wholesale and Retailing	225	249	289	311	323	327	356	441	484
	2. General Transportation	293	327	355	424	467	540	660	859	907
	3. Telephony and Internet	92	117	137	151	136	132	131	155	157
4. Non-dedicated Support Total		610	692	781	885	927	999	1,148	1,455	1,548
Grand Total		3,813	4,096	4,340	5,143	5,706	6,222	6,935	8,519	9,459

Annex 5. Copyright Industry Contribution to Output, %

Category	Subcategory	2000	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	1.34	1.30	1.06	1.23	1.20	1.04	1.00	0.96	0.89
	2. Music, Theatrical Productions, Operas	0.07	0.09	0.06	0.10	0.08	0.08	0.10	0.14	0.11
	3. Motion Picture and Video	0.19	0.16	0.15	0.14	0.11	0.11	0.10	0.15	0.14
	4. Radio and Television	0.49	0.38	0.38	0.30	0.26	0.25	0.23	0.27	0.26
	5. Photography	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	6. Software and Databases	0.35	0.45	0.41	0.46	0.46	0.50	0.48	0.55	0.54
	7. Visual and Graphic Arts	0.03	0.07	0.06	0.04	0.05	0.06	0.05	0.06	0.07
	8. Advertising Services	0.52	0.47	0.59	0.66	0.69	0.68	0.69	0.74	0.67
	9. Copyright Collecting Societies	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1. Core Total		3.04	2.95	2.76	2.97	2.90	2.75	2.67	2.89	2.70
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	0.51	0.53	0.60	0.66	0.72	0.60	0.55	0.45	0.41
	2. Computers and Equipment	0.16	0.18	0.19	0.19	0.22	0.22	0.19	0.22	0.24
	3. Musical Instruments	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	4. Photocopiers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	5. Photographic and Cinematographic Instruments	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
	6. Blank Recording Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
	7. Paper	0.23	0.20	0.22	0.32	0.33	0.29	0.26	0.24	0.22
2. Interdependent Total		0.93	0.95	1.05	1.20	1.30	1.14	1.03	0.95	0.93
3. Partial	1. Apparel, Textiles and Footwear	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
	2. Jewellery and Coins	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
	3. Other Crafts	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
	4. Furniture	0.06	0.06	0.07	0.08	0.09	0.09	0.09	0.09	0.09
	5. Household Goods, China and Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6. Wall Coverings and Carpets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7. Toys and Games	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8. Architecture, Engineering, Surveying	0.07	0.07	0.07	0.10	0.07	0.07	0.07	0.07	0.08
	9. Interior Design	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10. Museums	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3. Partial Total		0.19	0.20	0.21	0.24	0.24	0.23	0.23	0.24	0.24
4. Non-dedicated Support	1. General Wholesale and Retailing	0.29	0.30	0.33	0.32	0.30	0.26	0.24	0.25	0.24
	2. General Transportation	0.38	0.39	0.40	0.44	0.43	0.43	0.45	0.50	0.44
	3. Telephony and Internet	0.12	0.14	0.15	0.16	0.13	0.10	0.09	0.09	0.08
4. Non-dedicated Support Total		0.79	0.83	0.88	0.92	0.86	0.79	0.78	0.84	0.76
Grand Total		4.95	4.94	4.89	5.34	5.29	4.91	4.71	4.91	4.61

Annex 6. Employment of Copyright Industry, full time units

Category	Subcategory	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	13,494	13,200	13,058	12,721	12,561	12,743	13,241	13,417
	2. Music, Theatrical Productions, Operas	2,286	2,311	2,447	2,391	2,799	3,043	3,309	3,046
	3. Motion Picture and Video	5,942	5,451	4,303	2,637	2,808	2,661	2,704	2,899
	4. Radio and Television	5,897	5,426	4,511	3,617	3,538	3,502	3,345	3,363
	5. Photography	923	949	896	700	749	628	597	543
	6. Software and Databases	2,708	3,209	3,728	4,517	4,484	5,412	5,754	6,477
	7. Visual and Graphic Arts	454	494	495	431	393	444	498	526
	8. Advertising Services	2,744	3,337	3,981	4,467	4,590	4,770	5,091	5,073
	9. Copyright Collecting Societies	55	78	48	52	55	56	54	58
1. Core Total		34,502	34,455	33,468	31,533	31,976	33,257	34,594	35,402
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	4,458	4,680	5,131	5,717	4,018	4,166	4,180	4,241
	2. Computers and Equipment	1,440	1,498	1,604	1,805	1,854	2,197	2,526	2,692
	3. Musical Instruments	38	39	47	46	51	58	58	52
	4. Photocopiers	36	40	43	50	37	37	55	58
	5. Photographic and Cinematographic Instruments	143	185	181	118	134	130	136	135
	6. Blank Recording Material	0	0	2	4	2	4	33	64
	7. Paper	2,068	1,565	1,955	1,932	1,949	2,083	2,070	2,091
2. Interdependent Total		8,183	8,007	8,963	9,671	8,045	8,675	9,057	9,334
3. Partial	1. Apparel, Textiles and Footwear	271	282	277	259	238	241	226	209
	2. Jewellery and Coins	110	137	141	117	142	154	177	154
	3. Other Crafts	245	329	371	357	358	401	402	390
	4. Furniture	645	769	871	962	1,066	1,177	1,182	1,186
	5. Household Goods, China and Glass	43	41	41	42	48	48	47	40
	6. Wall Coverings and Carpets	4	4	5	5	2	2	2	2
	7. Toys and Games	72	62	76	76	57	66	67	55
	8. Architecture, Engineering, Surveying	884	803	809	704	714	768	887	941
	9. Interior Design	4	6	4	4	4	4	5	5
	10. Museums	76	74	82	72	71	79	92	86
3. Partial Total		2,354	2,507	2,677	2,597	2,701	2,940	3,087	3,067
4. Non-dedicated Support	1. General Wholesale and Retailing	4,164	4,018	4,049	3,962	4,011	4,308	4,478	4,827
	2. General Transportation	3,541	3,585	3,639	3,441	3,453	3,764	4,046	4,411
	3. Telephony and Internet	441	368	320	258	275	298	319	314
4. Non-dedicated Support Total		8,145	7,971	8,008	7,661	7,739	8,370	8,843	9,552
Grand Total		53,185	52,941	53,116	51,461	50,461	53,243	55,581	57,354

Annex 7. Copyright Industry Contribution to Employment, %

Category	Subcategory	2001	2002	2003	2004	2005	2006	2007	2008
1. Core	1. Press and Literature	1.34	1.29	1.25	1.22	1.16	1.14	1.14	1.15
	2. Music, Theatrical Productions, Operas	0.23	0.23	0.23	0.23	0.26	0.27	0.28	0.26
	3. Motion Picture and Video	0.59	0.53	0.41	0.25	0.26	0.24	0.23	0.25
	4. Radio and Television	0.59	0.53	0.43	0.35	0.33	0.31	0.29	0.29
	5. Photography	0.09	0.09	0.09	0.07	0.07	0.06	0.05	0.05
	6. Software and Databases	0.27	0.31	0.36	0.43	0.42	0.48	0.49	0.56
	7. Visual and Graphic Arts	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05
	8. Advertising Services	0.27	0.33	0.38	0.43	0.43	0.43	0.44	0.43
	9. Copyright Collecting Societies	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
1. Core Total		3.43	3.36	3.21	3.01	2.96	2.97	2.97	3.03
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	0.44	0.46	0.49	0.55	0.37	0.37	0.36	0.36
	2. Computers and Equipment	0.14	0.15	0.15	0.17	0.17	0.20	0.22	0.23
	3. Musical Instruments	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	4. Photocopiers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5. Photographic and Cinematographic Instruments	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01
	6. Blank Recording Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	7. Paper	0.21	0.15	0.19	0.18	0.18	0.19	0.18	0.18
2. Interdependent Total		0.81	0.78	0.86	0.92	0.75	0.77	0.78	0.80
3. Partial	1. Apparel, Textiles and Footwear	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
	2. Jewellery and Coins	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
	3. Other Crafts	0.02	0.03	0.04	0.03	0.03	0.04	0.03	0.03
	4. Furniture	0.06	0.08	0.08	0.09	0.10	0.10	0.10	0.10
	5. Household Goods, China and Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6. Wall Coverings and Carpets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7. Toys and Games	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	8. Architecture, Engineering, Surveying	0.09	0.08	0.08	0.07	0.07	0.07	0.08	0.08
	9. Interior Design	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10. Museums	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3. Partial Total		0.23	0.24	0.26	0.25	0.25	0.26	0.27	0.26
4. Non-dedicated Support	1. General Wholesale and Retailing	0.41	0.39	0.39	0.38	0.37	0.38	0.38	0.41
	2. General Transportation	0.35	0.35	0.35	0.33	0.32	0.34	0.35	0.38
	3. Telephony and Internet	0.04	0.04	0.03	0.02	0.03	0.03	0.03	0.03
4. Non-dedicated Support Total		0.81	0.78	0.77	0.73	0.72	0.75	0.76	0.82
Grand Total		5.29	5.17	5.10	4.92	4.68	4.75	4.78	4.92

Annex 8. Exports of Services of Core Copyright Industry, LTL million

Code	Description	Factor	2004	2005	2006	2007	2008	2009	2010
B	Services		113.1	109.9	94.2	101.1	142.8	138.0	144.5
b.7	Computer and information services		85.6	78.3	50.4	59.8	97.9	98.4	100.8
b.7.1	Computer services	1	83.3	75.0	46.8	58.2	95.3	96.6	96.3
b.7.2	Information services		2.2	3.3	3.6	1.6	2.7	1.8	4.5
b.7.2.1	News agencies services	1	1.7	1.7	1.3	1.0	0.8	0.3	0.6
b.7.2.2	Other information services	1	0.5	1.6	2.3	0.6	1.9	1.5	3.9
b.8	Royalties and licence fees		1.1	2.7	1.0	0.2	1.1	0.5	1.2
b.8.1	Franchises and similar services	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.0
b.8.2	Other payments for copyrights and licences	0.5	0.6	2.1	1.0	0.2	1.1	0.5	1.2
b.10	Personal, cultural and recreational services		26.4	28.9	42.8	41.2	43.8	39.1	42.5
b.10.1	Audiovisual and related services	1	15.1	8.1	20.3	12.2	8.5	4.6	1.4
b.10.2	Other personal, cultural and recreational services	1	11.3	20.8	22.6	29.0	35.3	34.5	41.1

Annex 9. Imports of Services of Core Copyright Industry, LTL million

Code	Description	Factor	2004	2005	2006	2007	2008	2009	2010
B	Services		84.77	99.135	102.545	100.025	152.885	153.39	169.765
b.7	Computer and information services		55.76	63.68	62.54	67.41	92.16	92.86	98.12
b.7.1	Computer services	1	43.43	38.16	51.18	52.67	66.59	83.25	71.69
b.7.2	Information services		12.33	25.52	11.36	14.74	25.57	9.61	26.43
b.7.2.1	News agencies services	1	1.82	1.69	2.01	0.94	0.82	0.99	1.83
b.7.2.2	Other information services	1	10.51	23.83	9.35	13.8	24.75	8.62	24.6
b.8	Royalties and licence fees		24.99	28.775	33.445	27.175	40.395	36.26	45.355
b.8.1	Franchises and similar services	0.5	3.31	3.305	5.85	6.07	6.63	7.76	5.13
b.8.2	Other payments for copyrights and licences	0.5	21.68	25.47	27.595	21.105	33.765	28.5	40.225
b.10	Personal, cultural and recreational services		4.02	6.68	6.56	5.44	20.33	24.27	26.29
b.10.1	Audiovisual and related services	1	1.12	2.08	0.79	0.21	5.89	9.91	12.46
b.10.2	Other personal, cultural and recreational services	1	2.9	4.6	5.77	5.23	14.44	14.36	13.83

Annex 10. Copyright Industry Contribution to Exports of Services, %

Code	Description	Factor	2004	2005	2006	2007	2008	2009	2010
B	Services		1.66	1.27	0.95	1.00	1.28	1.50	1.34
b.7	Computer and information services		1.26	0.91	0.51	0.59	0.88	1.07	0.94
b.7.1	Computer services	1	1.23	0.87	0.47	0.57	0.85	1.05	0.90
b.7.2	Information services		0.03	0.04	0.04	0.02	0.02	0.02	0.04
b.7.2.1	News agencies services	1	0.02	0.02	0.01	0.01	0.01	0.00	0.01
b.7.2.2	Other information services	1	0.01	0.02	0.02	0.01	0.02	0.02	0.04
b.8	Royalties and licence fees		0.02	0.03	0.01	0.00	0.01	0.00	0.01
b.8.1	Franchises and similar services	0.5	0.01	0.01	0.00	0.00	0.00	0.00	0.00
b.8.2	Other payments for copyrights and licences	0.5	0.01	0.02	0.01	0.00	0.01	0.00	0.01
b.10	Personal, cultural and recreational services		0.39	0.33	0.43	0.41	0.39	0.43	0.40
b.10.1	Audiovisual and related services	1	0.22	0.09	0.20	0.12	0.08	0.05	0.01
b.10.2	Other personal, cultural and recreational services	1	0.17	0.24	0.23	0.29	0.32	0.38	0.38

Annex 11. Copyright Industry Contribution to Imports of Services, %

Code	Description	Factor	2004	2005	2006	2007	2008	2009	2010
B	Services		1.87	1.73	1.47	1.17	1.56	2.08	2.30
b.7	Computer and information services		1.23	1.11	0.90	0.79	0.94	1.26	1.33
b.7.1	Computer services	1	0.96	0.67	0.73	0.62	0.68	1.13	0.97
b.7.2	Information services		0.27	0.45	0.16	0.17	0.26	0.13	0.36
b.7.2.1	News agencies services	1	0.04	0.03	0.03	0.01	0.01	0.01	0.02
b.7.2.2	Other information services	1	0.23	0.42	0.13	0.16	0.25	0.12	0.33
b.8	Royalties and licence fees		0.55	0.50	0.48	0.32	0.41	0.49	0.61
b.8.1	Franchises and similar services	0.5	0.07	0.06	0.08	0.07	0.07	0.11	0.07
b.8.2	Other payments for copyrights and licences	0.5	0.48	0.45	0.40	0.25	0.34	0.39	0.54
b.10	Personal, cultural and recreational services		0.09	0.12	0.09	0.06	0.21	0.33	0.36
b.10.1	Audiovisual and related services	1	0.02	0.04	0.01	0.00	0.06	0.13	0.17
b.10.2	Other personal, cultural and recreational services	1	0.06	0.08	0.08	0.06	0.15	0.19	0.19

Annex 12. Complete Copyright Activity List with Corresponding Attributes and Factors, NACE 1.1

Category	Subcategory	Code	Contribution Type	Attribution	Split coef.	Factor	
1. Core	1. Press and Literature	22.11	Direct	Single	1	1	
		22.12	Direct	Single	1	1	
		22.13	Direct	Single	1	1	
		22.15	Direct	Single	1	1	
		22.21	Direct	Single	1	1	
		22.22	Direct	Single	1	1	
		22.23	Direct	Single	1	1	
		22.24	Direct	Single	1	1	
		22.25	Direct	Single	1	1	
		52.47	Direct	Single	1	1	
		52.50	Direct	Shared	0.03-0.038	1	
		74.87	Direct	Shared	0.051	1	
		92.31	Direct	Shared	0.205	1	
		92.40	Direct	Single	1	1	
		92.51	Direct	Single	1	1	
	2. Music, Theatrical Productions, Operas	22.14	Direct	Single	1	1	
		22.31	Direct	Single	1	1	
		51.43	Direct	Shared	0.006	1	
		52.45	Direct	Shared	0.021-0.029	1	
		74.87	Direct	Shared	0.056	1	
		92.31	Direct	Shared	0.224	1	
		92.32	Direct	Single	1	1	
		92.34	Direct	Single	1	1	
		3. Motion Picture and Video	22.32	Direct	Single	1	1
			51.43	Direct	Shared	0.006	1
	74.87		Direct	Shared	0.135	1	
	92.11		Direct	Single	1	1	
	92.12		Direct	Single	1	1	
	92.13		Direct	Single	1	1	
	92.31		Direct	Shared	0.54	1	
	92.20		Direct	Single	1	1	
	4. Radio and Television	92.20	Direct	Single	1	1	
5. Photography	74.81	Direct	Single	1	1		
6. Software and Databases	22.33	Direct	Single	1	1		
	72.21	Direct	Single	1	1		
	72.22	Direct	Single	1	1		
	72.30	Direct	Single	1	1		
	72.40	Direct	Single	1	1		
	72.60	Direct	Single	1	1		
	7. Visual and Graphic Arts	74.87	Direct	Shared	0.108	1	
92.31		Direct	Shared	0.031	1		
92.52		Direct	Shared	0.8	1		
8. Advertising Services	74.40	Direct	Single	1	1		
9. Copyright Collecting Societies	74.87	Direct	Shared	0.039-0.051	1		

Category	Subcategory	Code	Contribution Type	Attribution	Split coef.	Factor
2. Interdependent	1. TV Sets, Radios, VCRs, [...] and other similar equipment	32.30	Direct	Single	1	1
		51.43	Direct	Shared	0.338	1
		52.45	Direct	Shared	0.301-0.309	1
	2. Computers and Equipment	30.02	Direct	Single	1	1
		51.84	Direct	Single	1	1
		51.85	Direct	Shared	0.351	1
		71.33	Direct	Single	1	1
	3. Musical Instruments	36.30	Direct	Single	1	1
		52.45	Direct	Shared	0.011-0.019	1
	4. Photocopiers	30.01	Direct	Shared	0.05	1
		51.85	Direct	Shared	0.05	1
	5. Photographic and Cinematographic Instruments	33.40	Direct	Single	1	1
	6. Blank Recording Material	24.64	Direct	Single	1	1
		24.65	Direct	Single	1	1
	7. Paper	21.11	Direct	Single	1	1
		21.12	Direct	Single	1	1
		24.30	Direct	Single	1	1
		29.55	Direct	Single	1	1
		51.56	Direct	Single	1	1
3. Partial	1. Apparel, Textiles and Footwear	17.60	Indirect	Single	1	0.006
		17.71	Indirect	Single	1	0.006
		17.72	Indirect	Single	1	0.006
		18.10	Indirect	Single	1	0.006
		18.21	Indirect	Single	1	0.006
		18.22	Indirect	Single	1	0.006
		18.23	Indirect	Single	1	0.006
		18.24	Indirect	Single	1	0.006
		19.30	Indirect	Single	1	0.006
		29.54	Indirect	Single	1	0.006
		51.42	Indirect	Single	1	0.006
		52.41	Indirect	Single	1	0.006
		52.42	Indirect	Single	1	0.006
		52.43	Indirect	Single	1	0.006
	2. Jewellery and Coins	36.21	Indirect	Single	1	0.2
		36.22	Indirect	Single	1	0.2
		36.61	Indirect	Single	1	0.2
	3. Other Crafts	36.63	Indirect	Single	1	0.4
	4. Furniture	36.11	Indirect	Single	1	0.05
		36.12	Indirect	Single	1	0.05
		36.13	Indirect	Single	1	0.05
		36.14	Indirect	Single	1	0.05
		36.15	Indirect	Single	1	0.05
		51.85	Indirect	Shared	0.599	0.05
	5. Household Goods, China and Glass	52.44	Indirect	Shared	0.426	0.05
		20.51	Indirect	Single	1	0.005
		20.52	Indirect	Single	1	0.005
26.12		Indirect	Single	1	0.005	

Category	Subcategory	Code	Contribution Type	Attribution	Split coef.	Factor
		26.13	Indirect	Single	1	0.005
		26.14	Indirect	Single	1	0.005
		26.15	Indirect	Single	1	0.005
		26.21	Indirect	Single	1	0.005
		26.22	Indirect	Single	1	0.005
		26.23	Indirect	Single	1	0.005
		26.24	Indirect	Single	1	0.005
		26.25	Indirect	Single	1	0.005
		26.26	Indirect	Single	1	0.005
		28.75	Indirect	Single	1	0.005
		31.50	Indirect	Single	1	0.005
		52.44	Indirect	Shared	0.574	0.005
	6. Wall Coverings and Carpets	17.51	Indirect	Single	1	0.004
		21.24	Indirect	Single	1	0.004
		21.25	Indirect	Single	1	0.004
	7. Toys and Games	36.50	Indirect	Single	1	0.4
	8. Architecture, Engineering, Surveying	74.20	Indirect	Single	1	0.1
	9. Interior Design	74.87	Indirect	Shared	0.07	0.053
	10. Museums	52.50	Indirect	Shared	0.05-0.058	0.5
		92.52	Indirect	Shared	0.2	0.5
4. Non-dedicated Support	1. General Wholesale and Retailing	51.11	Induced	Single	1	0.043-0.051
		51.12	Induced	Single	1	0.043-0.052
		51.13	Induced	Single	1	0.043-0.053
		51.14	Induced	Single	1	0.043-0.054
		51.15	Induced	Single	1	0.043-0.055
		51.16	Induced	Single	1	0.043-0.056
		51.17	Induced	Single	1	0.043-0.057
		51.18	Induced	Single	1	0.043-0.058
		51.19	Induced	Single	1	0.043-0.059
		51.41	Induced	Single	1	0.043-0.060
		51.43	Induced	Shared	0.65	0.043-0.061
		51.44	Induced	Single	1	0.043-0.062
		51.45	Induced	Single	1	0.043-0.063
		51.46	Induced	Single	1	0.043-0.064
		51.47	Induced	Single	1	0.043-0.065
		51.81	Induced	Single	1	0.043-0.066
		51.82	Induced	Single	1	0.043-0.067
		51.83	Induced	Single	1	0.043-0.068
		51.85	Induced	Shared	0	0.043-0.069
		51.86	Induced	Single	1	0.043-0.070
		51.87	Induced	Single	1	0.043-0.071
		51.88	Induced	Single	1	0.043-0.072
		51.90	Induced	Single	1	0.043-0.073
		52.11	Induced	Single	1	0.043-0.074
		52.12	Induced	Single	1	0.043-0.075
		52.45	Induced	Shared	0.65-0.658	0.043-0.076
		52.48	Induced	Single	1	0.043-0.077
		52.50	Induced	Shared	0.92-0.928	0.043-0.078
		52.61	Induced	Single	1	0.043-0.079
		52.62	Induced	Single	1	0.043-0.080

Category	Subcategory	Code	Contribution Type	Attribution	Split coef.	Factor
		52.63	Induced	Single	1	0.043-0.081
		71.40	Induced	Single	1	0.043-0.082
	2. General Transportation	60.10	Induced	Single	1	0.043-0.083
		60.21	Induced	Single	1	0.043-0.084
		60.22	Induced	Single	1	0.043-0.085
		60.23	Induced	Single	1	0.043-0.086
		60.24	Induced	Single	1	0.043-0.087
		61.10	Induced	Single	1	0.043-0.088
		61.20	Induced	Single	1	0.043-0.089
		62.10	Induced	Single	1	0.043-0.090
		62.20	Induced	Single	1	0.043-0.091
		63.11	Induced	Single	1	0.043-0.092
		63.12	Induced	Single	1	0.043-0.093
		63.21	Induced	Single	1	0.043-0.094
		63.22	Induced	Single	1	0.043-0.095
		63.23	Induced	Single	1	0.043-0.096
		63.30	Induced	Single	1	0.043-0.097
		63.40	Induced	Single	1	0.043-0.098
		64.11	Induced	Single	1	0.043-0.099
		64.12	Induced	Single	1	0.043-0.100
	3. Telephony and Internet	64.20	Induced	Single	1	0.043-0.101

The Economic Contribution of Copyright-Based Industries in Malawi



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List of Acronyms

AES	Annual Economic Surveys
ARIPO	African Regional Intellectual Property Organization
BPAM	Book Publishers Association of Malawi
COSOMA	Copyright Society of Malawi
FAMA	Film Association of Malawi
GDP	Gross Domestic Product
IMF	International Monetary Fund
IP	Intellectual Property
ISIC	International Standard Industrial Classification of All Economic Activities
JUMA	Journalists Union of Malawi
K	Kwacha
MACRA	Malawi Communications Regulatory Authority
MAM	Musicians Association of Malawi
MAWU	Malawi Writers Union
MRA	Malawi Revenue Authority
NA	National Accounts
NDSI	Non-Dedicated Support Industries
NPISH	Non-Profit Institution Serving Households
NSO	National Statistical Office
NTAM	National Theatre Association of Malawi
OECD	Organisation for Economic Co-operation and Development
PHOTAMA	Photographers Association of Malawi
SME	Small and Medium-Sized Enterprise
SNA	System of National Accounts
SUT	Supply and Use Tables
UN	United Nations
VA	Value Added
VAAM	Visual Artists Association of Malawi
VAT	Value Added Tax
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Organization
WPPT	WIPO Performances and Phonograms Treaty

Acknowledgements

This study was requested by the Government of Malawi through the Copyright Society of Malawi (COSOMA), in light of the increasing importance of copyright goods and services to Malawi's economy. It is expected that the results of the study will provide robust data on the actual economic contribution of creative activities, which can serve as a basis for adjusting policies and strategies aimed at promoting growth and development in the country's copyright-based sectors.

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Lizzie Chikoti

Executive Summary

The importance of copyright-based industries has been recognised by a growing number of international studies conducted in recent times. Copyright is defined as the protection of ‘the rights in literary and artistic works’ and is an important aspect of intellectual property (IP), for it encompasses every form of production in the literary, scientific and artistic work regardless of the mode or form of expression.

There is a growing interest in the copyright-based industries today, due to the recognition that creativity is the very basis for the social, economic and cultural development of nations. Based on the World Intellectual Property Organization (WIPO) *Guide on Surveying the Economic Contribution of the Copyright-Based Industries* (2003) (hereinafter referred to as ‘the WIPO Guide’), studies have been conducted to quantify the contribution of copyright-based industries in several European, American, Asian and African countries. In this report, studies have been reviewed that were conducted in Singapore, the United States of America, Canada, Latvia and Kenya on the basis of the recommendations contained in the WIPO Guide. The results provide convincing evidence of the substantive contribution of copyright-based activities to economic growth.

The Guide provides a methodology for measuring the contribution of copyright-based industries, in economic terms, to a country’s development; it has been used as a methodological tool in over 35 country studies. The study undertaken in Malawi has proceeded based on this Guide, having been requested by the Government of Malawi through the Copyright Society of Malawi (COSOMA) in light of the increasing importance of copyright goods and services to Malawi’s economy.

The economic indicators in this analysis have been obtained from the 2009 Annual Economic Survey (AES) and the National Accounts of Malawi for 2009. The AES provides total value-added, profitability and fixed capital formation in the 15 sectors of the large-scale and some medium-scale sectors. The AES, which formed the main source of data in this study, used the ISIC Rev 3.1 for its economic activities classification (until 2009) and the Malawi National Accounts was based on the same source. Since the main data used in this study were the official statistics from the National Statistical Office (NSO), the study used ISIC Rev 3.1 that has been aggregated slightly as per the nature of the Malawian industries.

The economic contribution of the copyright-based industries in Malawi is estimated using the following key summary indicators: gross output, gross domestic product (GDP), remuneration (employee incomes) and employment share in the economy. The selection of these indicators has primarily been determined by the availability and type of data that are used in the compilation of National Accounts figures for Malawi by the NSO.

The total copyright-based industries as defined by WIPO are estimated to have contributed to the Malawi economy in 2009 as follows:

- K30,478,125,760 of value added or 3.46% of GDP
- K65,181,173,630 of the gross output or 3.65% of total output
- K9,053,969,130 of the wages or 3.98% of the total employees’ income
- Employed 26,704 persons or 3.35% of the total national work force (government and private sector)

The economic contribution of copyright-based industries in Malawi of 3.46% of the GDP is the eighth ranking contributor to GDP, surpassing sectors like transportation, construction, and mining and quarrying. In comparison to other countries that have conducted a similar analysis, Kenya’s copyright-based industries contributed 5.3% of GDP in 2007, Mexico’s contributed 4.77% in 2003 and Jamaica’s contributed 4.8% in 2005.

The estimated contribution of the core copyright-based industries of 0.5% in Malawi is relatively low, because the AES does not capture a number of core copyright-based industries, including activities of professional organisations, motion pictures, other recreation activities, and libraries and archives.

For gross output, it is noted that the core copyright-based industries contributed K10,302,313,330.00, the interdependent industries contributed K47,381,051,380.00, the partial industries contributed

K1,904,199,530.00 and the non-dedicated support industries contributed K5,593,609,390.00. This implies that of the total contribution of copyright-based industries to gross output, 16% came from core copyright industries, 73% from interdependent copyright-based industries, 3% from the partial copyright-based industries and 8% from the non-dedicated support industries.

Labour productivity was highest in the non-dedicated support industries, followed by the interdependent copyright-based industries and the core copyright-based industries. The contribution of core copyright-based industries to gross output was K10,302,300,000 and their contribution to GDP was K4,417,200,000. When this is decomposed, the press and literature sector contributed 44% within this category, followed by music, theatrical productions and opera at 35% and the copyright collecting society at 1%. The core copyright-based industries employed 5,153 persons. When this is decomposed, the press and literature employed 1,339 persons, music, theatrical productions and opera employed 2,645 persons and the copyright collecting society employed 20 persons.

The interdependent copyright-based industries contributed K47,381,100,000 to gross output. When this is decomposed, computer and equipment activity contributed the highest output at 55%, followed by paper manufacturing at 41%, paper retail sales at 2% and musical instruments at 1%. The industries contributed K23,219,300,000 to GDP. If we consider the sub-industries, computer and equipment activity contributed the highest output (62%) followed by paper manufacturing (37%), paper retail sales and musical instruments, the last two contributing less than 1% each.

The interdependent copyright-based industries employed 19,366 persons. Among the activities in this category, computers and equipment employed 10,294 persons, paper manufacturing employed 8,800, paper retail sales employed 174 and musical instruments employed 98 persons. The partial copyright-based industries contributed K1,904,200,000 to gross output, with furniture contributing the highest gross output of 49%. Architecture, engineering and surveying contributed 29%, while apparel, textiles and footwear contributed 19%.

The results of this study indicate that copyright-based industries in Malawi in 2009 contributed significantly to the national economy. The contribution of 3.46% of the total value added, about 3.65% to the gross output and 3.35% to the total employment, shows that the sector is important to the Malawi economy. The contribution of the copyright-based industries to the national economy based on GDP was higher than that of the mining and quarrying, human health, education, construction and transport and storage sectors.

This is the first time this type of study has been done in Malawi. The major challenge of the study was the availability of relevant data in the National Accounts. Most of the creative industries in Malawi, as in most developing countries, are small-scale enterprises, usually not registered and in many cases with undetailed financial records. Therefore, there is a need for registration of these enterprises with government authorities, as this will ensure a strong trust and recognition from the government. The copyright-based industries need to learn the culture of keeping records for ease of monitoring and evaluation of their performance.

The use of aggregated data and estimations for the small enterprises may have resulted in the underestimation of the economic contribution of copyright-based industries to the economy of Malawi. Nonetheless, the study has shown that the copyright-based industries are important and there is a need for all stakeholders to take the necessary measures if their contribution is to be acknowledged by the government. The NSO, working with other stakeholders, should be encouraged to take extra effort to include the data collection of creative industries.

1. Background and Introduction

1.1 Introduction

Copyright laws are important in enabling right holders to derive an economic benefit from the utilisation of their works. Copyright protection aims to optimise resource allocation efficiency, thereby enhancing the welfare and growth of a nation. The interaction between law and economics has often been of interest to scholars and the importance of copyright-based industries has been recognised by a growing number of international studies conducted in recent times.¹ The concepts of copyright and other related rights are defined in each country's legislation and these are mostly consistent with the provisions provided within the Berne Convention.² Copyright is defined as the protection of 'the rights in literary and artistic works' and is an important aspect of intellectual property (IP), for it encompasses every form of production in the literary, scientific and artistic work regardless of mode or form of expression.³ The concept of copyright protection is only afforded to the expression of the idea and not the idea itself.

1.2 The Main Intellectual Property Laws of Malawi

Copyright and related rights are part of the IP system, created for the purpose of promoting creativity and protecting creators by granting those rights for a limited period. The other part is industrial property, which includes trademarks, patents, industrial designs, integrated circuits, utility models and geographical indications.

There are five main IP laws in Malawi, namely the Trademarks Act (Cap.49:01), the Patents Act (Cap.49:02), the Copyright Act (Cap.49:03), the Trade Description Act (Cap.49:04) and the Registered Designs Act (Cap.49:05). The Environment Management Act (Cap.48:04) and the Competition and Fair Trading Act (Cap.60:02) also contain elements of IP, but to a lesser degree. The Registrar General's Office is responsible for the administration of the three industrial property pieces of legislation (i.e. the Trademarks, Patents and Industrial Designs Acts), which were enacted in 1958 and have largely remained unchanged with the exception of a 1985 amendment to the Patents and Registered Designs Acts for purposes of incorporating the African Regional Intellectual Property Office (ARIPO) Harare Protocol on Patents and Industrial Designs. The Copyright Society of Malawi (COSOMA) is responsible for copyright issues in Malawi.

1.3 Copyright Law in Malawi

The history of copyright law in Malawi prior to the country becoming a British protectorate in 1891 is rather unclear; however, upon assuming the said status the British Copyright Law of 1911 became law in the then Nyasaland, and upon becoming independent in 1964 the country inherited the same Act. The present Copyright Act, which was enacted in 1989, contains a number of provisions which are an improvement on the old Act, including the establishment of COSOMA as a statutory corporation. The Copyright Act (1989) encompasses most of the legal principles which are enshrined in international treaties like the Berne Convention, to which Malawi has been a party since October 1991. The Act grants to the author exclusive rights in the following areas:

1. **Reproduction:** Under this right, no one except the copyright owner may make reproductions or copies of the work. Examples of unauthorised acts that are prohibited under this right include photocopying a book, copying computer software, using a cartoon character on a T-shirt and incorporating a portion of somebody's song into a new song.
2. **Distribution rights:** These allow a non-copyright holder to distribute works or productions to the public at a cost.

¹ WIPO publication No. 893, *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*, 'the WIPO Guide'.

² The full title of which is the Berne Convention for the Protection of Literary and Artistic Works

³ WIPO Guide pg. 13

3. Public performance: The right allows the copyright holder to control the public performance of certain copyrighted works. The scope of the performance right is limited to the following types of works:

- literary works;
- musical works;
- dramatic works;
- choreographic works;
- pantomimes;
- motion pictures; and
- audio visual works.

Under the public performance right, a copyright holder is allowed to control when the work is performed 'publicly'. A performance is considered 'public' when the work is performed in a 'place open to the public or at a place where a substantial number of persons outside of a normal circle of a family and its social acquaintances are gathered.' A performance is also considered to be public if it is transmitted to multiple locations, such as through television and radio.

4. Adaptation/arrangement: This right allows the copyright owner to control the making of a work based upon one or more pre-existing works, such as a translation, musical arrangement, dramatisation, fictionalisation, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted.

A derivative work usually involves a type of transformation, such as the making of a novel into a motion picture. In the computer industry, a second version of a software program is generally considered a derivative work based upon the earlier version.

Performers and producers of sound recordings are also accorded exclusive economic rights in their performances and in the sound recordings which include the right to authorise the broadcast or communication to the public of their unfixed performances, the fixation of unfixed performances, the reproduction of performances fixed in phonograms and the distribution of the copies. Broadcasting organisations are also accorded similar rights in their broadcasts.

The law also provides for limitations to the exclusive rights to allow for exploitation of the works without permission from the author and obligation to pay. Reliance on such a provision is acceptable in exceptional cases including: private use; use for purposes of news reporting; use for certain educational purposes; certain uses by libraries and archives. However, in all of these instances the overriding principle is that the legitimate interest of the author must not be prejudiced and that it should not conflict with the normal exploitation of the work.

1.3.1 *Enforcement Provision*

The acquisition of rights is of little economic value unless they can be effectively enforced. Under the Copyright Act, the copyright holder can enforce his copyright in a number of ways including administrative means, criminal and civil sanctions. Under criminal sanctions, the Act provides for prosecution with the ultimate aim of securing a conviction and a fine or imprisonment. The maximum fine one can get under the Act is K750,000 if the court applies the Conversion of Fines Act, which was enacted to mitigate against the erosion of fines provided under laws which are relatively old: all fines under the Copyright Act are to be multiplied by the factor 50. The Act also provides for imprisonment of up to one year. The court may also order that equipment involved in the infringing process be forfeited to the copyright owner.

Remedies available under civil action include compensatory damage and injunctions. The law also empowers customs officials to detain copyright recordings they suspect to be infringing.

1.3.2 *Collective Management of Copyright*

Copyright is a private property right and, where practical, its exercise and exploitation is left to the individual copyright holder. However, certain rights, including public performance, reproduction and broadcasting, are not amenable to individual exploitation by the right owners. In recognition of this fact, the current

copyright law provides for the establishment of the COSOMA, a multipurpose collecting society to administer collectively the rights of its members.

COSOMA's main function is promoting and protecting the interests of authors, composers, translators, publishers, performers, producers of sound recordings and broadcasters and, in particular, to collect and distribute royalties or other remuneration accruing to them from their rights. It draws its membership from individual authors and rights holder associations. COSOMA, as a collective management organisation, administers the public performance and broadcasting rights in the following:

Broadcasting right: This involves the licensing of broadcasting stations to enable the broadcasting of copyright works and related subject matter in their broadcast content.

Public performance right: This licenses users to perform publicly any copyright work under its control in exchange for some remuneration.

Mechanical right: This involves the licensing of users, in particular record companies, to enable them make recordings of copyright-protected works like music, which can be manufactured and distributed for retail sale to the public.

Reprographic right: This involves the licensing of users, including academic institutions, to make reproductions including the photocopying of copyright-protected literary and artistic works.

1.4 Review of the Copyright Act

Since the Copyright Act was enacted in 1989, new types of works, new markets and, new methods of dissemination have evolved. The review of the law has therefore been necessitated in part by the need to respond to the challenges which have been brought about by the advent of digital technology, including the dissemination of protected material over digital networks such as internet. In this regard, the review has been carried out in such a way as to ensure that the law is compliant with the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) both of which Malawi is yet to be party to. The benefits of acceding to the two treaties would include international protection of Malawi's own national right holders, promotion of electronic commerce and encouragement of investment.

1.5 Introduction to the Malawi Study

Industries based on copyright and related rights have a considerable impact on the national economy. National studies in a number of countries have revealed that these industries are major contributors in terms of their relative aggregate value added to a country's Gross Domestic Product (GDP) as well as in their contribution to employment and foreign trade. In 2003, WIPO published the *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*⁴ (hereinafter referred to as 'the WIPO Guide'), to provide a methodology for measuring the contribution of copyright-based industries, in economic terms, to a country's development. The WIPO Guide has been used as a methodological tool in over 35 country studies.⁵ This study undertaken in Malawi has proceeded based on this Guide.

This study was requested by the Government of Malawi through the COSOMA, in light of the increasing importance of copyright goods and services to Malawi's economy. It is expected that the results of the study will provide robust data on the actual economic contribution of creative activities, which can serve as a basis for adjusting policies and strategies aimed at promoting growth and development in the country's copyright-based sectors.

⁴ WIPO publication No. 893

⁵ During the writing of this study (2013) the Guide has been used in more than 35 countries.

1.6 Objectives

The key objectives of the study are to:

- Quantify the economic contribution of copyright and related rights-based industries in the country, by estimating their contribution to GDP, share of national employment and revenue generated from foreign trade;
- Analyse and elaborate on selected copyright and related rights-based industries of importance to Malawi, their national market structure, value chain, demand and supply patterns, labour market, policy framework, support from public and civil sector including the role of collective management organisations and other copyright-related organisations, financing mechanisms, implications of the digital environment, among others;
- Identify the comparative advantages of the copyright-based industries with regard to other industry sectors and with regard to major trade partners; and
- Propose policy, strategy and institutional interventions for encouraging the growth and development of copyright-based industries in the country.

1.7 Methodology

The **first** step included the identification of the copyright and related rights-based industries in Malawi, using as reference Annex 1 of the WIPO Guide.

Dummy tables were drafted according to the categories in the Guide.

Availability of data was assessed. The NSO compiles the National Accounts for Malawi and also conducts Annual Economic Survey (AES). These have been used as the main source of data for the copyright-based industries.

Tables have been compiled using available statistical data by industry classes, based on ISIC Rev 3.1.

In addressing specific areas or filling some gaps, interviews have been conducted with some individuals and organisations.

The **second** step was measurement and calculation of the contribution of the copyright and related rights-based industries studied to GDP, national output, employment and foreign trade, using a selected approach provided in the WIPO Guide. The Guide gives four categories of copyright-based industries:

Core copyright-based industries: These are industries which are wholly engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.

Interdependent copyright-based industries: These are 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.

Partial copyright-based industries: These are 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.

Non-dedicated support industries (NDSI): These industries are those 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.

1.8 Economic Indicators Used in the Analysis

The economic indicators in this analysis have been obtained from the 2009 AES and National Accounts of Malawi 2009. The rationale of the AES is to give a quantitative description of the activities of mainly large-scale enterprises in all sectors of the Malawian economy, with respect to their production, employment

characteristics, profitability, acquisition and issue of both real and financial claims in different sectors of the economy.

The AES provides total value-added, profitability and fixed capital formation in the 15 sectors of the large-scale and some medium-scale sectors.

The economic indicators are:

Gross output: Total value of sales by producing enterprises (their turnover) in an accounting period, before subtracting the value of intermediate goods used up in production.

Value-added: This refers to gross income generated from domestic production in an industry or sector (or in total for all industries or sectors), and is derived and defined as output less intermediate consumption. In this study, the production approach has been used to measure the relative size of the copyright-based industries.

Employment: Since the main source of data for this study is the AES, the employment numbers used are also from the AES.

Remuneration: This is an amount of money paid to someone for the work that that person has done.

Labour productivity: Productivity is commonly defined as a ratio of volume measure of output to a measure of input use. Among other productivity measures, such as multi-factor productivity or capital productivity, labour productivity is particularly important in the economic and statistical analysis of a country. Labour productivity is a revealing indicator of economic indicators as it offers a dynamic measure of economic growth, competitiveness and living standards within an economy.

Foreign trade (i.e share of imports and exports): The trade statistics are obtained from the NSO which compiles, processes and publishes trade data from the MRA customs records.

1.9 Period Covered

The period under study is 2009, as the latest economic data available are for the year 2009 and these data have undergone thorough cleaning.

1.10 Survey of Copyright-Based Industries not in the National Accounting of Malawi

After studying the available data from the NSO, the survey team decided to hold meetings with leaders of various associations: the Music Association of Malawi (MAM); the Book Publishers Association of Malawi (BPAM); the Writers Association of Malawi; the Photographers Association of Malawi (PHOTAMA); the Film Makers Association of Malawi; BUMAS representing ICT; and Art Galleries, in order to solicit their views on the performance of the copyright-based industries in Malawi.

COSOMA was also visited to get statistics on mechanical right royalties (sampled questionnaires appended in Annex 1). This information was difficult to use, because it does not show the value of production of the various players, rather it only gives the number of public broadcasts and public appearances.

In an effort to complement the data from the AES, the Survey Team tried to collect data on Value Added Tax from the MRA, the body responsible for collection of taxes and customs duties for the government. The team presented its requirements, especially in line with improving the compilation of National Accounts in Malawi. It was emphasised that tax records are an important source of data required for measuring the economic performance of the country. During the discussions, it was learnt that the tax information records are not yet computerised and secondly, such information is classified by company name and taxpayer number but not by ISIC. Furthermore, the MRA's Act forbids them to release information by company name. The Senior MRA officials advised the Survey Team to officially request the information from the Commissioner General for his consideration. The response from the Commissioner General was that it would not be possible to release that type of information, even without the company names. During the visit, it was also learnt that the MRA is in the process of computerising its tax record-keeping system and the Survey Team emphasised the importance of classifying the information by ISIC in order to facilitate its use in monitoring the economic performance of the country.

2. Economic Contribution of the Copyright-Based Industries to the Economy

2.1 Introduction

The creative sector today is well established and is a vital component that contributes substantially to economic, social and cultural development. Research has provided solid evidence of the growing importance worldwide of the creative industries, which are deeply rooted in copyright protection. While contributing to cultural diversity and the enhancement of social values, these industries are at the same time generating wealth, creating jobs and promoting trade. However, it is still the case that in many countries the true value and potential of the creative sector are often underestimated and insufficiently analysed. The WIPO Guide summarises initial efforts made to assess the economic contribution of the copyright-based industries to national economies and offers step-by-step guidelines on how the copyright-based industries can be measured. While the intention of the WIPO Guide was to produce a harmonised approach to economic surveys in this field, it goes further in providing governments, research institutions and civil society in general with a practical tool for independently evaluating the contribution of their copyright sector.

2.2 Results of Other Country Studies

There is a growing interest in the copyright-based industry today, due to the recognition that creativity is the very basis for social, economic and cultural development of nations. Based on the WIPO Guide (2003), studies have been conducted to quantify the contribution of copyright-based industries in several European, American Asian and African countries. In this section, we review studies conducted in Singapore, the United States of America, Canada, Latvia and Kenya that were carried out on the basis of the recommendations contained in the WIPO Guide. The results provide convincing evidence of the substantive contribution of copyright-based activities to economic growth.

In Singapore, the IP Academy of Singapore (IPA) and the Intellectual Property Office of Singapore (IPOS) conducted a pilot study applying WIPO's framework for estimating the economic contribution of copyright-based industries in Singapore in terms of output, value added, employment and foreign trade. The study found that a stronger growth than the economy's average annual rate of 7.6% was noted in the copyright-based industries, giving an average of 8.9% per annum in real value added from 1986 to 2001.

In the US, copyright-based industries continue to be one of the country's largest and fastest-growing economic assets. Since 1990, the International Intellectual Property Alliance (IIPA) has commissioned Economists Incorporated to conduct studies measuring the economic impact and trade role of these copyright industries in the US economy. The US was one of the first countries in the world to undertake such an economic analysis in 1977.

- In 2002, the US 'core' copyright industries accounted for an estimated 6% of the US gross domestic product (\$626.6 billion).
- In 2002, the US 'total' copyright industries accounted for an estimated 11% of the US gross domestic product (\$1.25 trillion).
- The 'core' copyright industries employed 4% of US workers in 2002 (5.48 million workers).

Over the years, these studies have continually demonstrated that the creation of knowledge-intensive intellectual property-based goods and services is critical to the continued economic growth of the US.

In Latvia, the study was undertaken in cooperation with the Ministry of Culture of the Republic of Latvia and the Central Statistical Bureau of Latvia, with support from WIPO, the Finnish Ministry of Education and Culture and the Dutch Copyright Federation.

The study revealed that core and interdependent copyright-based industries contributed 4% of GDP and 4.4% of employment to the Latvian economy in the year 2000. Print media, advertising, and software and

databases made the most important economic contributions. Another finding of the study is that copyright-based industries in Latvia make a larger contribution to GDP than those in Austria, Belgium, Greece, Ireland, Luxembourg, Portugal, and Spain. The contribution of the core and interdependent copyright-based industries exceeds those of many other industries in the Latvian economy.

In the Kenyan study, the findings were intended to inform policy formulation processes towards an improved policy framework for the operation of the creative sector in the country. In accordance with the WIPO Guide, the study categorised the copyright and related rights-based industries into core, interdependent, partial, and non-dedicated support industries. The results show that the total value added of copyright-based industries in 2007 amounted to about KSHs 85.21 billion, which represented 5.32% of Kenya's GDP.

The core copyright-based industries outperformed all the other three categories of copyright-based industries in all the main economic contributions considered in this study: GDP, gross output, employment and employee incomes. The interdependent copyright-based industries did better than the partial copyright-based and non-dedicated support industries in their contribution to GDP and gross output. The partial copyright-based industries exceeded the interdependent copyright-based and non-dedicated support industries in their contribution to employment and employee incomes.

According to the *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries – Creative Industries series No.2*, the study carried out in Mexico found that, in 2003, value added for the total of the Mexican copyright-based industries was 4.77% of GDP, which was slightly above the construction sector (4%). The study also showed a change in the inner structure of the copyright-based industries, with an increase in the contribution of core copyright-based industries and a reduction in the contribution of interdependent copyright-based industries.

In Jamaica, the estimates reveal that in 2005 the copyright sector contributed about 4.8% of GDP. In Croatia, the research was done in cooperation with the State Intellectual Property Office (SIPO) and the Central Bureau of Statistics (CBS), with the technical support of WIPO. In this study, the chosen indicators were evaluated for two years, namely 2002 and 2004. In 2004, the copyright-based industries in Croatia generated 4.3% of the GDP of the economy of Croatia.

3. Methodology and Data Sources

3.1 International Standard Industrial Classification (ISIC) in Malawi

The Annual Economic Survey (AES), which formed the main source of data in this study, used the UN ISIC Rev 3.1 for its economic activities classification (until 2009) and the Malawi National Accounts were based on the same (NSO, 2011). Since the main data used in this study were the official statistics from the National Statistical Office, the study used ISIC Rev 3.1, which may be aggregated slightly depending on the nature of the Malawian industries.

Table 3.1: Malawi’s industry coding compared to WIPO classification of copyright-based industries, based on ISIC Rev. 3.1 code

Malawi’s Coding		WIPO classification based on ISIC Rev. 3.1 code	
I. Core copyright industries	Code	I. Core copyright industries	Code
Magazines/periodicals	2212	Publishing of Newspapers, journals and periodicals	2212
Book publishing	2211	Publishing of books, brochures and other publications	2211
Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	2221	Other Publishing	2219
		Printing	2221
		Services activities related to printing	2222
		Library and archives activities	9231
		News agency activities	9220
Wholesale and retail of press and literature (book stores, newsstands, etc)	5139	Wholesale of other household goods	5139
		Other retail sale in specialised stores	5239
		Software publishing	7221
		Other software consultancy and supply	7229
		Database activities and online distribution	7240
		Data processing	7230
		Wholesale of computers, computer peripheral equipment and software	5151
Composers, lyricists, arrangers, choreographers...	9214	Writers, directors, actors	9214
Wholesale and retail of recorded music (sale and rental)	5233	Wholesale and retail of recorded music (sale and rental)	5233
National radio and television broadcasting companies	9213	National radio and television broadcasting companies	9213
Other radio and television broadcasters	9213	Other radio and television broadcasters	9213
Art galleries and other wholesale and retail	9414		
Advertising services (agencies, buying services)	7430	Advertising	7430
		Activities of professional organisations	9112
<i>The activities below are not included in the AES though they are part of core copyright-based industries</i>		Radio and TV activities	9213
Library and archives activities		Other business activities	7499
Motion picture and video prod. and distribution			
Activities of professional organisations		Dramatic arts and music and other arts activities	9214
Other recreational services		Other entertainment activities	9219
		Other recreational services	9249
		Publishing of music	2213

Table 3.1: Malawi's industry coding compared to WIPO classification of copyright-based industries, based on ISIC Rev. 3.1 code (continued)

Malawi's Coding		WIPO classification based on ISIC Rev. 3.1 code	
		Reproduction of recorded media	2230
		Retail sale on household appliances, articles and equipment	5233
		Renting of personal and household goods	7130
		Wholesale of other household goods (incl. wholesale of recorded video tapes)	5139
		Motion picture and video prod. and distribution	9211
		Motion picture projection	9212
		Photographic activities	7494
		Other business activities n.e.c.	7499
II. Interdependent copyright		II. Interdependent copyright	
Computers and equipment	4741	Renting of office machinery and equipment (including computers)	7123
Computers and equipment	4651		
Computers and equipment	5151	Wholesale of computers, computer peripheral equipment and software	5151
Musical instruments	5233	Retail sale of household appliances, articles and equipment	5233
Paper manufacturing	2101	Manufacture of pulp, paper and paperboard	2101
Paper retail sales	5239	Wholesale of other intermediate products, waste and scrap	5149
		Other retail sale in specialised stores	5239
		Manufacture of TV and radio receivers, sound or video recording or reproducing apparatus, and associated goods	3230
		Manufacture of office, accounting and computing machinery	3000
		Wholesale of computers, computer peripheral equipment and software	5151
		Renting of office machinery and equipment (including computers)	7123
		Wholesale of other machinery, equipment and supplies	5159
		Manufacture of photographic and optical equipment	3320
		Other retail sale in specialised stores	5239
		Renting of other machinery	7129
		Retail sale of household appliances, articles and equipment	5233
III. Partial copyright		III. Partial copyright	
Apparel, textiles and footwear	1721	Manufacture of made-up textile articles	1721
Apparel, textiles and footwear	1810	Manufacture of wearing apparel	1810
Apparel, textiles and footwear	1920	Manufacturing of footwear	1920
Apparel, textiles and footwear	5131	Wholesale of textile, clothing and footwear	5131
Furniture	3610	Manufacture of furniture	3610
		Renting of personal and household goods n.e.c.	7130
Household goods, china and glass	2610	Manufacture of glass and glass products	2610
Household goods, china and glass	1730	Manufacture of knitted and crocheted fabrics and articles	173
Household goods, china and glass	2899	Manufacture of other fabricated metal products n.e.c.	2899
		Manufacture of jewellery and related articles	3691
		Wholesale of other household goods	5139
		Other retail sale in specialised stores	5239

Table 3.1: Malawi's industry coding compared to WIPO classification of copyright-based industries, based on ISIC Rev. 3.1 code (continued)

Malawi's Coding		WIPO classification based on ISIC Rev. 3.1 code	
		Manufacture of wearing apparel	1810
		Manufacture of made up textiles articles	1721
		Manufacture of footwear	1920
		Wholesale of textiles, clothing and footwear	5131
		Retail sale of textiles, clothing, footwear and leather goods	5232
		Library and archives services	9231
		Museum activities and preservation of historical sites and buildings	9232
Architecture, engineering survey	7421	Architectural and engineering activities and related technical consultancy	7421
IV. Non-dedicated copyright		IV. Non-dedicated copyright	
		Wholesale of machinery, equipment and supplies	515
General wholesale and retailing	5190	Other wholesale	519
General trade except of motor vehicles	5219	Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	52
Other retail	5231	Other retail trade of new goods in specialised stores	
		Land transport; transport via pipelines	60
General transportation		Transport via railways	601
Other road transport	6022	Other land transport	602
Road transport	6023	Water transport	61
Air transport	6210	Air transport	62
		Supporting and auxiliary transport activities	630
Cargo handling	6301	Cargo handling	6301
		Storage and warehousing	6302
		Other supporting transport activities	6303
		Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	6304
		Activities of other transport agencies	6309
		Post and courier activities	641
National post activities	6411	National post activities	6411
Courier activities other than national post activities	6412	Courier activities other than national post activities	6412
Telephony and Internet	6420	Telecommunication	6420
		Database activities and on-line distribution of electronic content	7240

3.2 The Copyright Factor

The WIPO Guide recommends the use of a copyright factor to identify the contributions of non-core copyright-based industries. A copyright factor is a percentage indicating the proportion of copyright activities in a given industry. It is an expression of the extent of dependence of the product of the given industry on copyright.

According to the WIPO Guide, the copyright factor may take a value between 0 and 1 depending on the industry. Thus, industries that only produce copyright products and works and other protected subject matter have a copyright factor of 1, while those having nothing to do with copyright have a factor of zero. In partial and non-dedicated copyright-based industries, a large share of their goods and services is not related to copyright at all.

Looking at methodologies used by other countries, this study of Malawi has used copyright factors for the partial copyright industry, obtained from the NSO Integrated Household Survey (IHS II) for apparel, textiles

and footwear and furniture, while for the household goods and architectural sectors the factors have been obtained from the Hungary study. We have used the Hungary study because it is evident that several similar studies obtained their multipliers from the study, including the Kenyan study. For the non-dedicated industries, the same formula that has been used in the Kenyan study has been applied, which is:

$$NSDI \text{ Copyright Factor} = \left[\frac{\text{Value added for Core, Interdependent and Partial Industries}}{\text{Non - distribution GDP}} \right]$$

Where non-distribution in the equation = GDP minus (value added of general transportation *plus* general wholesale and retail *plus* telephony and internet) *plus* value added of distribution industries in the core, interdependent and partial subsectors.

Table 3.2: Copyright factors used in Malawi in 2009

Copyright Industries	Copyright factors (%) Malawi	
1. Core copyright industries	100	
2. Interdependent copyright industries	100	
3. Partial copyright industries		
Apparel, textiles and footwear	4.3	Integrated Household Survey 2 – NSO 2005
Furniture	3.8	Integrated Household Survey 2 – NSO 2005
Household goods, china and glass	5	Hungary
Architecture, engineering, survey	10	Hungary
SME- Manufacturing	4.1	Average of apparel and furniture
4. Non-Dedicated support industries	3.15	

The copyright factors have been applied on the economic data extracted from the AES of 2009 and other sources, as given in Annex 2. The calculations of copyright factors are given in Annex 3.

3.3 Calculation of Indicators of Economic Contribution

The indicators used in this analysis for the economic contribution of Malawian copyright-based industries to the national economy are: turnover (gross output), value added (VA), number of persons employed, employees' remuneration and foreign trade. The value added is obtained when labour costs (including social security contributions and taxes) are added to the operating margin and the income from the sale of fixed assets is deducted from this sum. The GDP share of Gross Value Added (GVA) is calculated to reveal the economic contribution of the copyright-based industries to the domestic economy.

GDP can be measured using three approaches: the output or production approach, the expenditure approach, and the income approach. The production approach views GDP as the sum of VA of all industries, i.e., the difference between output and intermediate consumption. In the expenditure approach, GDP is viewed as the sum of all expenditure categories, including government and household consumption, fixed capital formation, changes in inventories, and exports minus imports. The income approach considers GDP to be the sum of the income due to households (compensation of employees, that is, wages and salaries, bonuses and benefits) and corporations (profits or gross operating surpluses) and taxes on production and on imports (indirect taxes)

The National Accounts (NA) statistics are designed to provide consistent and comprehensive statistics of the overall national economy. The NA give both a summarised description of the economy as a whole and a detailed description of transactions between different parts of the Malawi economy, and between Malawi and the rest of the world.

The coverage and concepts of the National Accounts are defined by international guidelines of the System of National Accounts (SNA 1993), published by the UN, the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), the World Bank, and the Commission of the European Communities in 1993. The NSO has been responsible for the compilation and analysis of the National Accounts for Malawi since 1964.

3.4 GDP and Production

3.4.1 Output

Output refers to goods and services produced in the accounting period and is not the same as sales of goods and services (because of changes in stocks). It covers the value of goods and services from domestic production activities, i.e. from market production, production for own final use, and non-market production in general government and in non-profit institutions serving households (NPISHs). Output is published in basic prices, that is, subsidies on products are included, but not value added tax (VAT) or other taxes on products. In general government and other non-market production, output is estimated by adding up the production costs, i.e. as the sum of compensation of employees, net taxes on production, consumption of fixed capital and intermediate consumption.

3.4.2 Value Added

Value added is the gross income generated from domestic production in an industry or sector (or in total for all industries/sectors), and is derived and defined as output less intermediate consumption. Value added is published in basic prices, i.e. subsidies on products are included, whereas VAT and other taxes on products are not.

In general government and other non-market activities, value added is compiled as the sum of the compensation of employees, net taxes on production (taxes on production less subsidies on production) and consumption of fixed capital.

3.5 Sources of Data and Production Cycle

The NSO compiles the National Accounts on an annual basis. The annual accounts are compiled at a detailed level and comprise about 100 industries and 340 products. The compilation of the National Accounts is based on many statistical sources: AES for large-scale enterprises; accounting statistics for government; external trade statistics; the Integrated Household Survey; agriculture crop estimation survey and livestock census; agriculture marketing surveys, etc. The process of compilation starts with independent supply and use estimates of all goods and services. Finally, supply and use for each of these is balanced by using supplementary information and quality assessments of the various statistical sources.

3.6 Contribution of Malawi's Small and Medium-Sized Copyright-Based Enterprises to GDP

The National Accounts for Malawi make some estimation for the contributions of small and medium-scale enterprises to GDP. The Supply and Use Tables (SUT) make estimations on the small/medium scale enterprises by activity, but not by product. In most cases, these activities are aggregated and this makes it difficult to isolate those that are in the creative industries (NSO, 2012). Some assumptions therefore had to be made to estimate the contribution of this SME sector.

Table 3.3: Calculation of value added contributed by SMEs in the 2009 SUT

Sector	%contribution to GDP	Value added from SMEs	Interdependent	Partial	Non-dedicated
Manufacturing	3.9	34,380,926	8,595,231	8,595,231	-
Wholesale and retail	6.0	52,893,732	13,223,433		26,446,866
Information and communication	0.5	4,407,811			4,407,811
Transport	1.5	13,223,433			13,223,433
GDP for Malawi		881,562,200			

The manufacturing sector contributed 3.9% to GDP, wholesale and retail contributed 6.0%, information and communication contributed 0.5%, and transport contributed 1.5%. The SUT shows that about 50% of the contribution of manufacturing activities was in the copyright-based industries. According to the WIPO Guide, the manufacturing activities are classified as interdependent or partial; so the assumption is that 50% of the value added from the SMEs in Malawi in 2009 was not copyright and the other half was copyright and has been split between interdependent and partial copyright-based industries.

The following assumptions were made to arrive at the contribution of the copyright SMEs:

- 0% of the value added in the SME manufacturing sector was contributed by the interdependent and partial industries and the share was 25% each. The other 50% was from non-copyright industries.
- 25% of the wholesale and retail SME value added was contributed by the interdependent copyright industries, while 50% was contributed by the non-dedicated support industries.
- From the SUT, the proportion of the contribution of the wholesale and retail sector was 25 % for those activities assumed to be in the interdependent sector and 50 % for those in the non-dedicated support industries.
- For the information and communication sector and the transport sector, the whole 100 % was attributable to the SME copyright industries.

The assumption of 100% contribution by SMEs is from the classification guide, which classifies almost all the activities in these industries to be in the non-dedicated sector of the copyright industries: this study assumes the same. The numbers included in the final figures have been reduced by the copyright factors.

Table 3.4: Calculation of output contributed by SMEs in the 2009 SUT

Sector	% contribution to output	Output from SMEs	Interdependent	Partial	Non-dedicated
Manufacturing	4.4	78,595,519	19,648,880	19,648,880	
Wholesale and retail	4.9	87,526,828	21,881,707		43,763,414
Information and communication	0.3	5,358,785			5,358,785
Transport	1.1	19,648,880			19,648,880
Total output from Malawi		1,786,261,800			

The assumptions made for output are similar to those made for value added. The 2009 SUT does not provide for contribution of the two remaining variables, remuneration and employment; their contribution has been assumed to be similar to the output contributions and the assumptions made are the same as those for value added.

Table 3.5: Calculation of remuneration contributed by SMEs in the 2009 SUT

Sector	% contribution to remuneration	Remuneration from SMEs	Interdependent	Partial	Non-dedicated
Manufacturing	4.4	10,009,927	2,502,482	2,502,482	
Wholesale and retail	4.9	11,147,418	2,786,855		5,573,709
Information and communication	0.3	682,495			682,495
Transport	1.1	2,502,482			2,502,482
Total economy		227,498,336			

Table 3.6: Calculation of employment contributed by SMEs in the 2009 SUT

Sector	% contribution to employment	Employment from SMEs	Interdependent	Partial	Non-dedicated
Manufacturing	4.4	35,098	8,774	8,774	
Wholesale and retail	4.9	39,086	9,772		19,543
Information and communication	0.3	2,393			2,393
Transport	1.1	8,774			8,774
Total economy		797,680			

3.7 Data Sources and Estimation Procedure

3.7.1 *The Annual Economic Survey*

AES activity and product output, intermediate consumption, compensation of employees and capital formation of fixed capital data were extracted from the 2009 AES reports. The rationale of the Survey is to give a quantitative description of the activities of mainly large-scale enterprises in all sectors of the Malawian economy, with respect to their production, employment characteristics, profitability, acquisition and issue of both real and financial claims in different sectors of the economy. The aim of the survey is to come up with total value added, profitability and formation of fixed assets in the 15 sectors of the large-scale and some medium-scale sectors. The main criterion used to include an enterprise is employment level within the sector; in some sectors, all enterprises have been included if the sector has too few enterprises.

Although the AES mainly covers large-scale enterprises, due to the current importance of medium- and small-scale enterprises the Survey has begun to progressively incorporate these companies in order to monitor the substantive growth of the entire economy. The AES covers private, statutory bodies and public (government) sectors engaged in the production and sale of goods and services on the market at prices normally designed to cover the cost of production.

3.7.2 *Estimation*

The overall methodological approach consisted of three principal components:

1. Derivation of specific data for the various copyright and related rights-based industries, mainly from the Malawi NSO.
2. Measuring the total economic impact of copyright and related rights-based industries: the total impact comprised the direct, indirect and induced impacts. These impacts were for output, value-added, incomes, employment and foreign trade. The impacts were measured as follows:
 - (i) The direct impact as represented by the operating revenue of copyright and related rights-based activities;
 - (ii) The indirect impact arises from additional revenue generated from other sectors providing goods and services to copyright and related rights-based sectors; and
 - (iii) The induced impact, limited to the group of non-dedicated support industries.
4. Employment data were compiled for estimation of the AES 2009 while trade data were from the foreign trade statistics compiled by the NSO from custom clearing returns obtained from the MRA.

4. Analysis and Results

4.1 Contribution of Copyright-Based Industries to Malawi's Economy

The economic contribution of the copyright-based industries in Malawi is estimated using the following key summary indicators: gross output, gross domestic product (GDP), remuneration (employee incomes) and employment share in the economy. The selection of these indicators has primarily been determined by the availability and types of data that are used in the compilation of national accounts figures for Malawi by the NSO.

The total copyright-based industries as defined by WIPO are estimated to have contributed to the Malawi economy in 2009 as follows:

- K30,478,125,760 of value-added or 3.46% of GDP
- K65,181,173,630 of the gross output or 3.65% of total output
- K9,053,969,130 of the wage bill or 3.98% of the total employees income
- Employed 26,704 persons or 3.35 of the total national workforce (government and private sector).

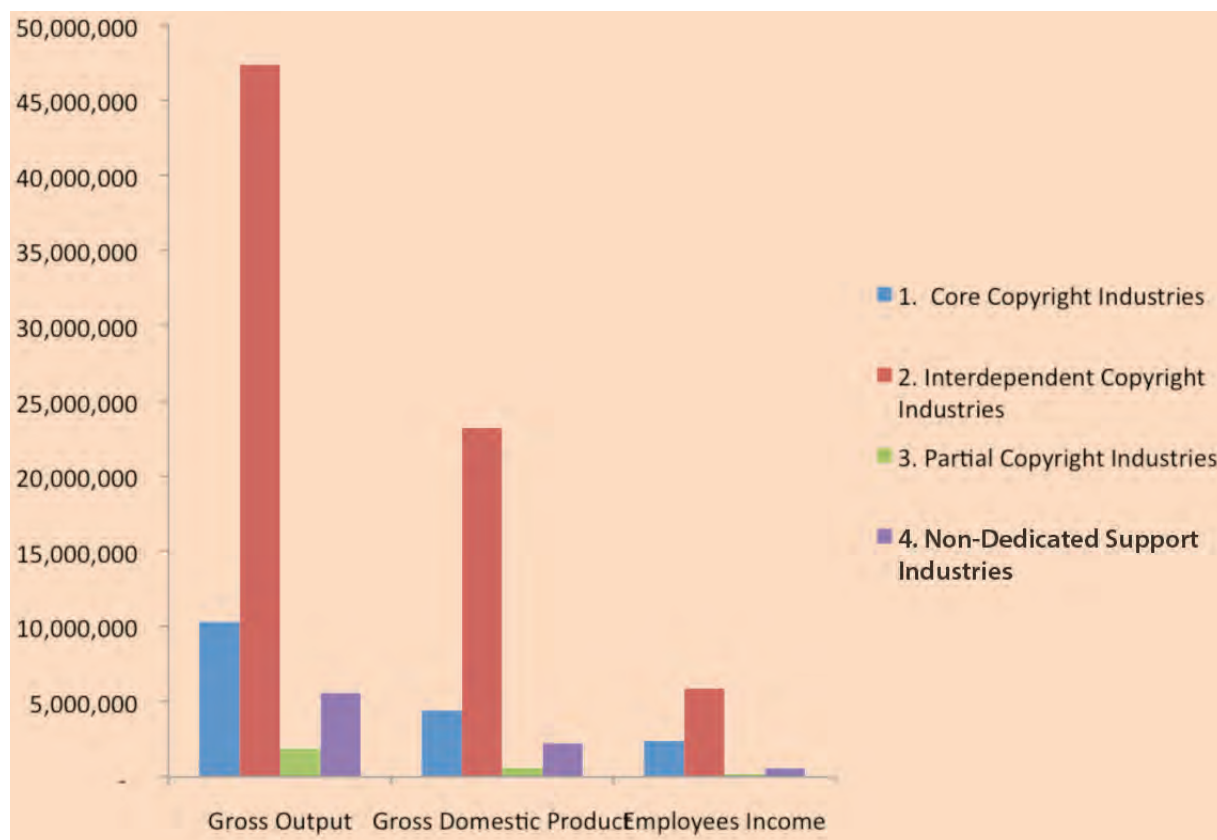
The economic contribution of copyright-based industries in Malawi was 3.46% of GDP. For comparison, among other countries that have conducted a similar analysis, Kenya's copyright-based industries contributed 5.3% of GDP in 2007; in Mexico, the contribution was about 4.77% of GDP in 2003; in Jamaica in 2005, the contribution of copyright-based industries was about 4.8% of GDP. In all these cases, the economic contribution of copyright-based industries to the national economy as measured by GDP was higher than that for Malawi. This may partly be attributed to the problems in the availability of data, as most of the copyright-based industries in Malawi are small-scale and there were challenges in obtaining information for this study.

In addition, it should be noted that the AES does not capture a number of core copyright-based industries, including other relevant business activities, activities of professional organisations, motion pictures, other recreation activities, and libraries and archives. For this reason, the estimated contribution of the copyright-based industries is relatively low because of the low recorded contribution of the core copyright-based industries, which is 0.5%

Table 4.1: Economic contribution of copyright-based industries in Malawi in 2009

Copyright-based industries	Gross Output		Gross Domestic Product		Employees Income		No. of Employees	
	K'000	%	K'000	%	K'000	%	No.	%
1. Core copyright-based industries	10,302,313.33	0.58	4,417,170.24	0.50	2,389,133.78	1.05	5,153	0.65
2. Interdependent copyright-based industries	47,381,051.38	2.65	23,219,306.11	2.63	5,897,922.81	2.59	19,366	2.43
3. Partial copyright-based industries	1,904,199.53	0.11	611,014.64	0.07	200,000.83	0.09	851	0.11
4. Non-Dedicated support industries	5,593,609.39	0.31	2,230,634.77	0.25	566,911.70	0.25	1,333	0.17
Total copyright-based industries	65,181,173.63	3.65	30,478,125.76	3.46	9,053,969.13	3.98	26,704	3.35
TOTAL FOR THE ECONOMY	1,786,261,800	100.00	881,562,200	100.00	227,498,336	100.00	797,680	100.00

Figure 4.1: Economic contribution of copyright-based industries in Malawi in 2009



4.2 Economic Contribution of Copyright-Based Industries Compared with Other Sectors in the Malawi Economy in 2009

The contribution of the copyright-based industries to the national economy, based on GDP and compared with a selected number of main sectors in Malawi is shown in Table 4.2 and Figure 4.2. The economy of Malawi is largely agro-based, with the agriculture, forestry and fishing sector contributing about 33% of GDP in 2009 followed by manufacturing contributing 10.8%. With a contribution of 3.46% in 2009 the copyright-based industries was the eighth highest ranking contributor to GDP surpassing sectors such as transportation, construction and mining and quarrying.

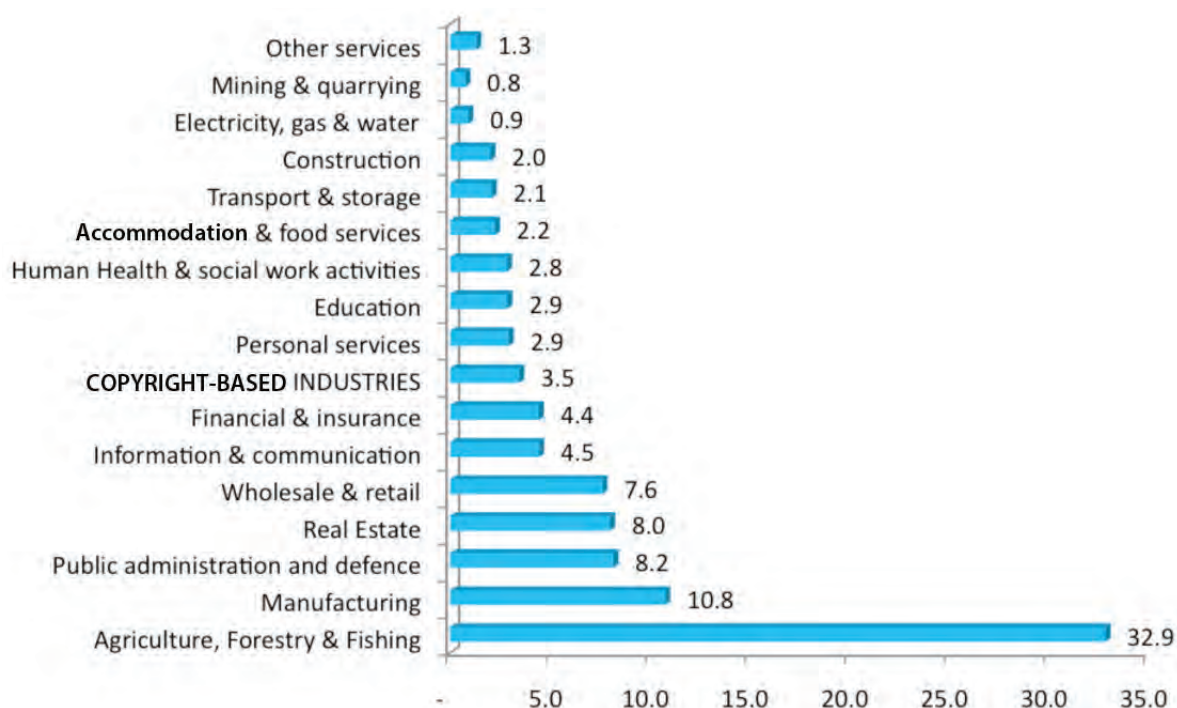
Table 4.2: Percentage share of GDP by sector in Malawi in 2009

Sector	2009
Agriculture, forestry and fishing	32.90
Manufacturing	10.8
Public administration and defence	8.19
Real estate activities	8.01
Wholesale and retail trade	7.63
Information and communication	4.46
Financial and insurance activities	4.44
COPYRIGHT-BASED INDUSTRIES	3.46
Personal services	2.93
Education	2.86
Human health and social work activities	2.85
Accommodation and food service activities	2.24

Table 4.2: Percentage share of GDP by sector in Malawi in 2009 (continued)

Transportation and storage	2.08
Construction	2.02
Electricity, gas and water supply	0.91
Mining and quarrying	0.76
Other services	1.31
Taxes less Subsidies on products	5.66
GDP in constant 2009 prices	100.00

Figure 4.2: Percentage share of GDP by sector in Malawi in 2009

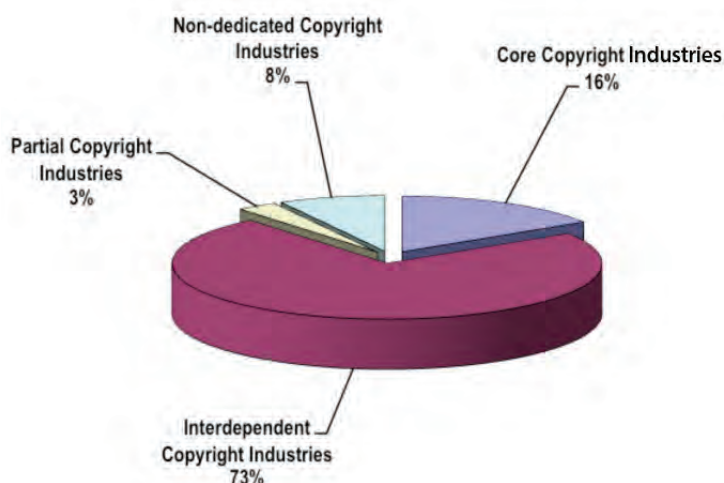


4.3 Economic Indicators in Analysing Economic Contribution of Copyright-Based Industries

Chapter 1 discussed the economic indicators that are analysed in this study to show the economic contribution and performance of copyright-based industries in Malawi. These indicators are gross output, gross domestic product measured by value added, employees' remuneration, number of employees and labour productivity.

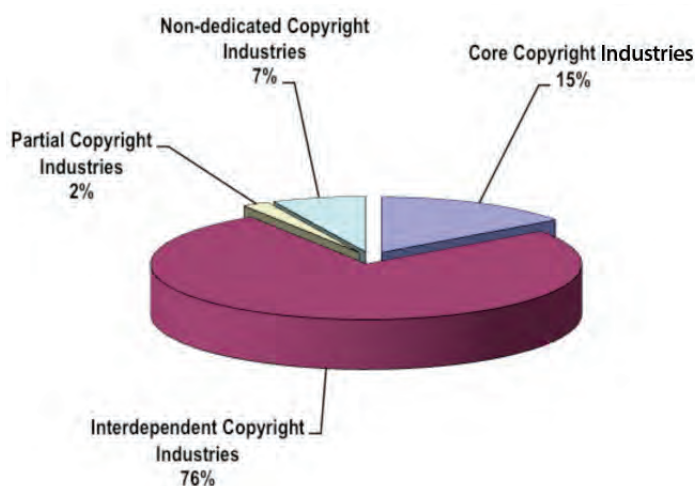
For gross output, it is noted that the core copyright-based industries contributed K10,302,313,330.00, the interdependent copyright-based industries contributed K47,381,051,380.00, the partial industries contributed K1,904,199,530.00 and the non-dedicated support industries contributed K5,593,609,390.00. This implies that of the total contribution of copyright-based industries to gross output, 16% came from core copyright industries, 73% came from interdependent copyright industries, 3% came from the partial copyright industries and 8% came from the non-dedicated support industries (Figures 4.1 and 4.3).

Figure 4.3: Economic contribution of copyright-based industries to gross output in 2009



For GDP, it is observed that the core copyright-based industries contributed K4,417,170,240.00, the interdependent copyright-based industries contributed K23,219,306,110.00, the partial copyright-based industries contributed K611,014,640.00 and the non-dedicated support industries contributed K2,230,634,770.00. This implies that among the total contribution of copyright-based industries, 15% came from core copyright-based industries, 76% came from interdependent copyright industries, 2% came from the partial copyright industries and 7% came from the non-dedicated support industries (Figure 4.4).

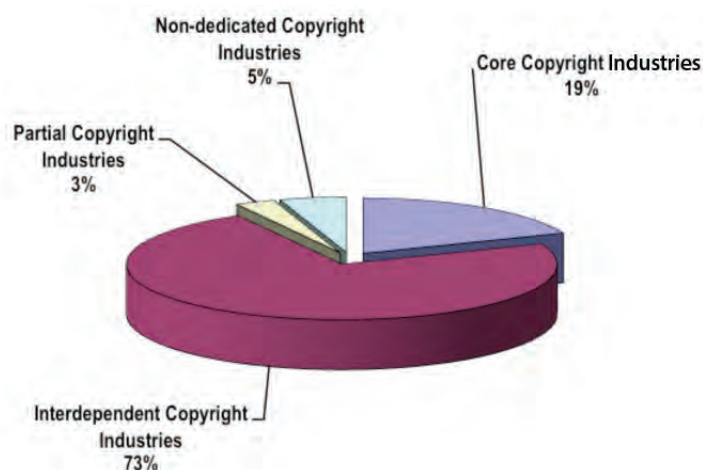
Figure 4.4: Economic contribution of copyright-based industries to GDP in 2009



For employees' income, it is observed that the core copyright-based industries paid out K2,389,133,780.00, the interdependent copyright-based industries paid K5,897,922,810.00, the partial industries paid K200,000,830.00 and the non-dedicated support industries paid out K566,911,700.00. This implies that among the total wage bill of copyright-based industries, 26% came from core copyright-based industries, 65% came from interdependent copyright-based industries, 2% came from the partial copyright industries and 6% came from the non-dedicated support industries (Figure 4.5).

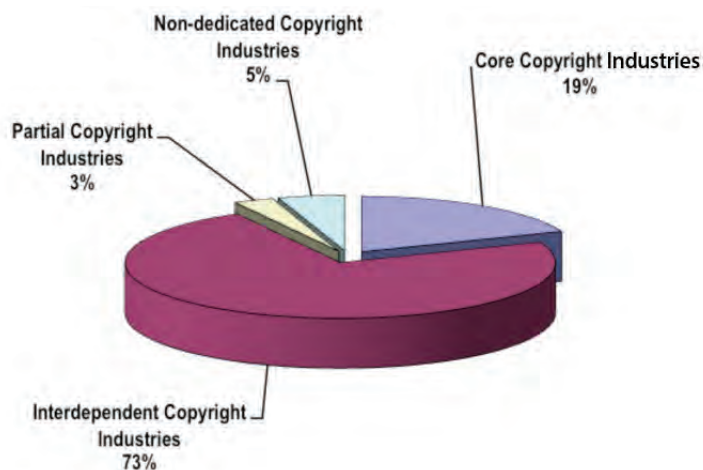


Figure 4.5: Employees' income share of copyright-based industries in Malawi in 2009



For the number of employees, it is observed that the core copyright-based industries employed 5,153 persons, the interdependent copyright-based industries employed 19,366 persons, the partial copyright-based industries employed 851 persons and the non-dedicated support industries employed 1,333 persons. This implies that among the total persons employed in copyright-based industries, 19% were employed in core copyright industries, 73% were employed in interdependent copyright industries, 3% were employed in partial copyright industries and 5% were employed in the non-dedicated support industries (Figure 4.6)

Figure 4.6: Share of employees in copyright-based industries in Malawi in 2009



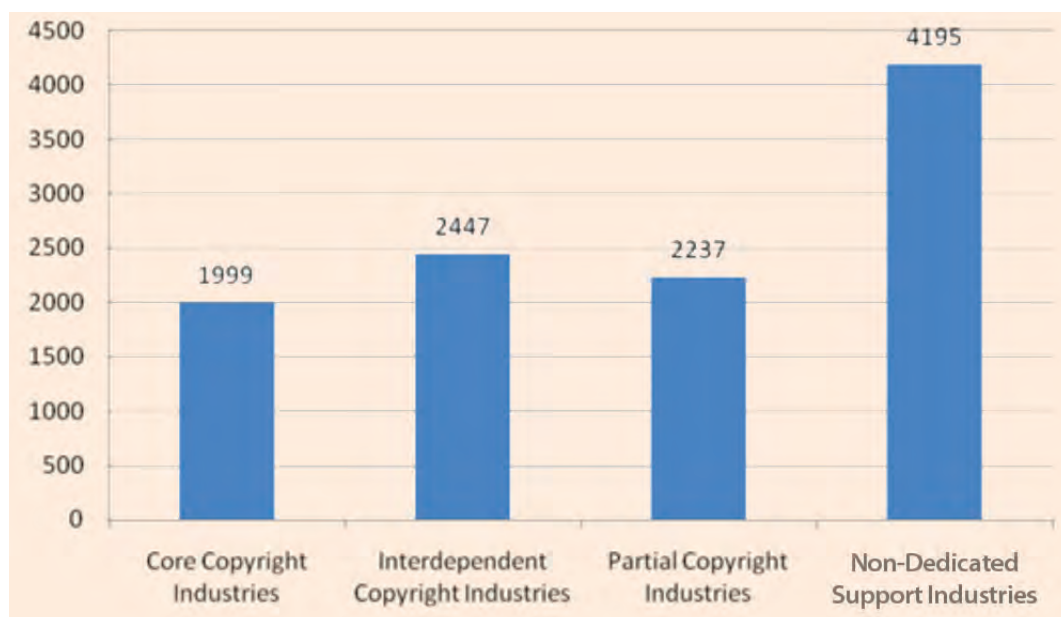
4.4 Labour Productivity

As discussed in Chapter 1, labour productivity of copyright-based industries, defined as total output per worker, was calculated for each of the four categories. The results show a higher labour productivity for the non-dedicated support industries, followed by the interdependent copyright industries and then the core copyright industries. The labour productivity of core copyright-based industries was at K1,999,000 per worker per year compared with the labour productivity of non-dedicated support industries, which was at K4,155,000 per worker in 2009.

Table 4.3: Labour productivity of copyright-based industries in Malawi in 2009

Copyright Industries	Output/Employee (K'000)
1. Core copyright-based industries	1,999
2. Interdependent copyright-based industries	2,447
3. Partial copyright-based industries	2,237
4. Non-Dedicated support industries	4,195
Total copyright-based industries	2,441
TOTAL FOR THE ECONOMY	2,239

Figure 4.7: Labour productivity of copyright-based industries in Malawi in 2009



4.5 Economic Contribution of Decomposed Core Copyright-Based Industries in Malawi in 2009

This section discusses the contribution of core copyright-based industries decomposed into various activities (see Annex 4). As given in Table 4.4 and shown in Figure 4.8 below, the core copyright-based industries in Malawi have been classified, as provided for in the WIPO Guide, into:

- press and literature
- music, theatrical productions and opera
- motion picture and video
- radio and television
- photography
- software and databases
- visual and graphic arts
- advertising services
- copyright collecting society

The core copyright-based industries contributed K10,302,313,330 to gross output. When this is decomposed, it is observed that the press and literature contributed the highest output, amounting to K5,472,370,000 or 53% within this category. Music, theatrical productions and opera contributed K2,568,953,000 or 25%, while the lowest contribution came from the copyright collecting society at K67,148,000 or less than 1%.

The core copyright-based industries contributed K4,417,170,000 to GDP. When this is decomposed, it is observed that the press and literature contributed the highest value added, amounting to K1,935,624,000 or

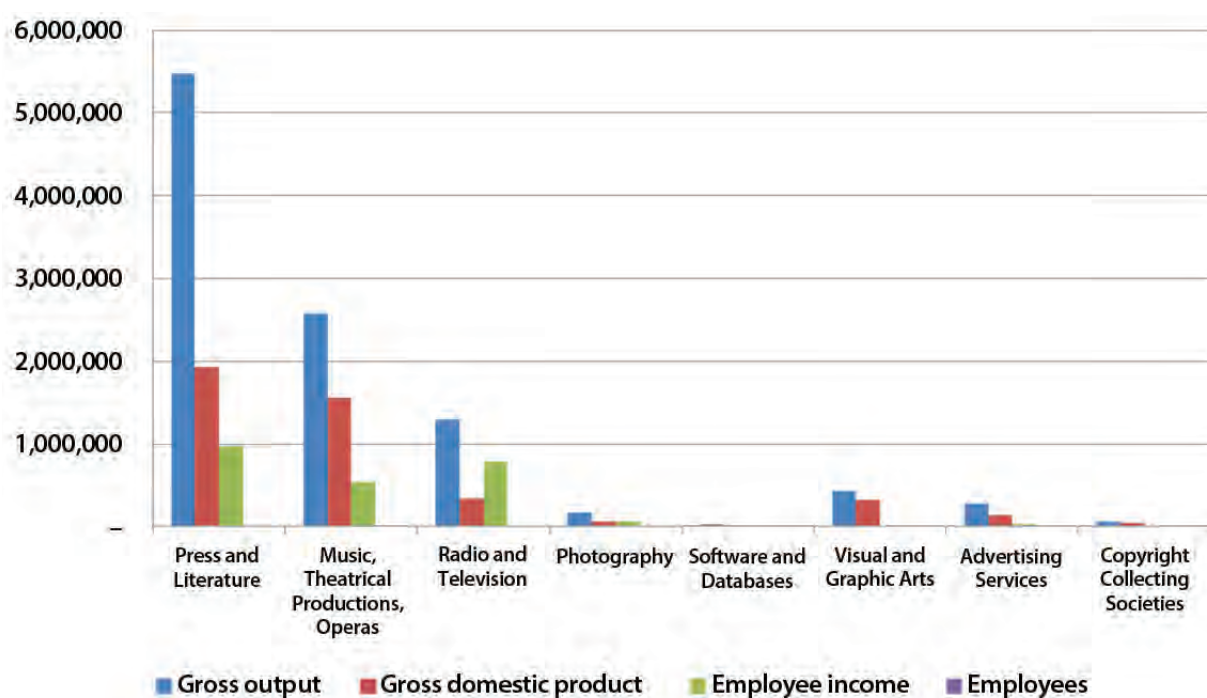
44% within this category. Music, theatrical productions and opera contributed K 1,555,869,000 or 35% in the core copyright-based industries, while the lowest contribution came from the copyright collecting society at K50,303,000 or about 1%.

The core copyright-based industries employed 5,153 persons. When this is decomposed, it is observed that the press and literature employed 1,339 persons, music, theatrical productions and opera employed 2,645 persons and the copyright collecting society employed 20 persons.

Table 4.4: Decomposed Core copyright-based industries' contribution to Malawi's economy in 2009

	Gross Output		Gross Domestic Product		Employees Income		No. of Employees	
	K'000	%	K'000	%	K'000	%	No.	%
Core copyright industries	10,302,313	100.00	4,417,170	100.00	,389,134	100.00	5,153	100.00
Press and literature	5,472,370	53.12	1,935,624	43.82	972,874	40.72	1,339	25.98
Music, theatrical productions, operas	2,568,953	24.94	1,555,869	35.22	536,002	22.43	2,645	51.33
Radio and television	1,302,760	12.65	331,087	7.50	781,460	32.71	1,038	20.14
Photography	170,231	1.65	61,610	1.39	53,450	2.24	50	0.97
Software and databases	22,409	0.22	18,447	0.42	3,016	0.13	4	0.08
Visual and graphic arts	427,802	4.15	329,042	7.45	3,518	0.15	50	0.97
Advertising services	270,639	2.63	135,189	3.06	30,776	1.29	7	0.14
Copyright collecting societies	67,148	0.65	50,303	1.14	8,037	0.34	20	0.39

Figure 4.8: Decomposed Core copyright-based industries' contribution to Malawi's economy in 2009



4.6 Economic Contribution of Decomposed Interdependent Copyright-Based Industries in Malawi in 2009

As given in Table 4.5 and shown in Figure 4.9 below, the interdependent copyright-based industries in Malawi have been classified into:

- computers and equipment
- musical instruments
- paper retail sales
- paper manufacturing

The interdependent copyright-based industries contributed K47,381,051,000 to gross output. When this is decomposed, it is observed that computer and equipment activity contributed the highest output, amounting to K26,235,280,000 or 55%, followed by paper manufacturing that contributed K19,654,419,000 or 41%. Paper retail sales contributed K890,477,000 or 2%, while musical instruments contributed K600,876,000 or about 1%.

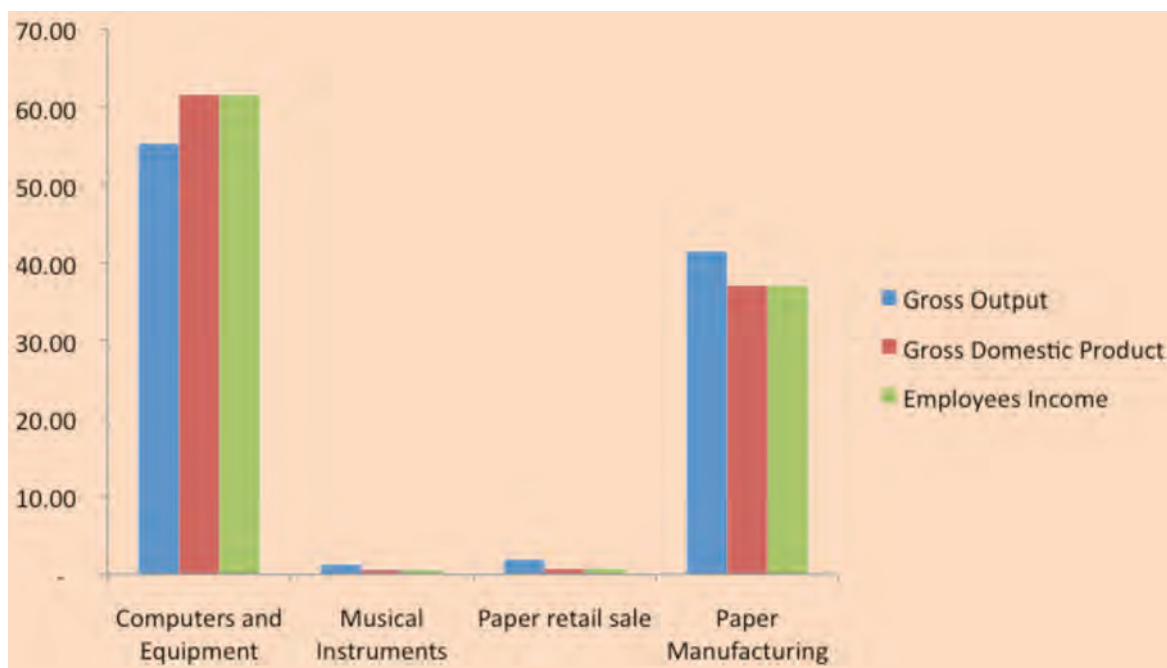
The interdependent copyright-based industries contributed K23,219,306,000 to GDP. When this is decomposed, it is observed that the computers and equipment sector contributed the highest output, amounting to K14,306,849,000 or 62%, followed by paper manufacturing which contributed K8,600,231,000 or 37% in this category. Paper retail sales contributed K175,045,000 and musical instruments contributed K137,180,000, each making a contribution of less than 1%.

The interdependent copyright-based industries employed 19,366 persons. When this is decomposed, it is shown that the computer and equipment activity employed 10,294 persons, paper manufacturing employed 8,800, paper retail sales employed 174 and musical instruments employed 98 persons.

Table 4.5: Decomposed interdependent copyright-based industries' contribution to Malawi's economy in 2009

	Gross Output		Gross Domestic Product		Employees Income		No. of Employees	
	K'000	%	K'000	%	K'000	%		%
Interdependent copyright industries	47,381,051,	100.00	23,219,306,	100.00	5,897,923,	100.00	19,366,	100.00
Computers and equipment	26,235,280,	55.37	14,306,849,	61.62	3,258,814,	55.25	10,294,	53.15
Musical instruments	600,876,	1.27	137,180,	0.59	45,841,	0.78	98,	0.51
Paper retail sale	890,477,	1.88	175,045,	0.75	82,899,	1.41	174,	0.90
Paper manufacturing	19,654,419,	41.48	8,600,231,	37.04	2,510,369,	42.56	8,800,	45.44

Figure 4.9: Decomposed interdependent copyright-based industries' contribution to Malawi's economy in 2009



4.7 Economic Contribution of Decomposed Partial Copyright-Based Industries in Malawi in 2009

As shown in Table 4.5 and Figure 4.10, the partial copyright-based industries in Malawi are classified into:

- apparel, textiles and footwear
- furniture
- household goods, china and glass
- architecture, engineering and survey

The reduced numbers using the copyright factors are given in Annex 5. The partial copyright-based industries contributed K1,904,199,530 to gross output. When this is disaggregated, it is observed that furniture contributed the highest gross output, amounting to K931,968,190 or 49%. Architecture, engineering and survey contributed K546,020,050 or 29%, while apparel, textiles and footwear contributed K363,588,920 or about 19%.

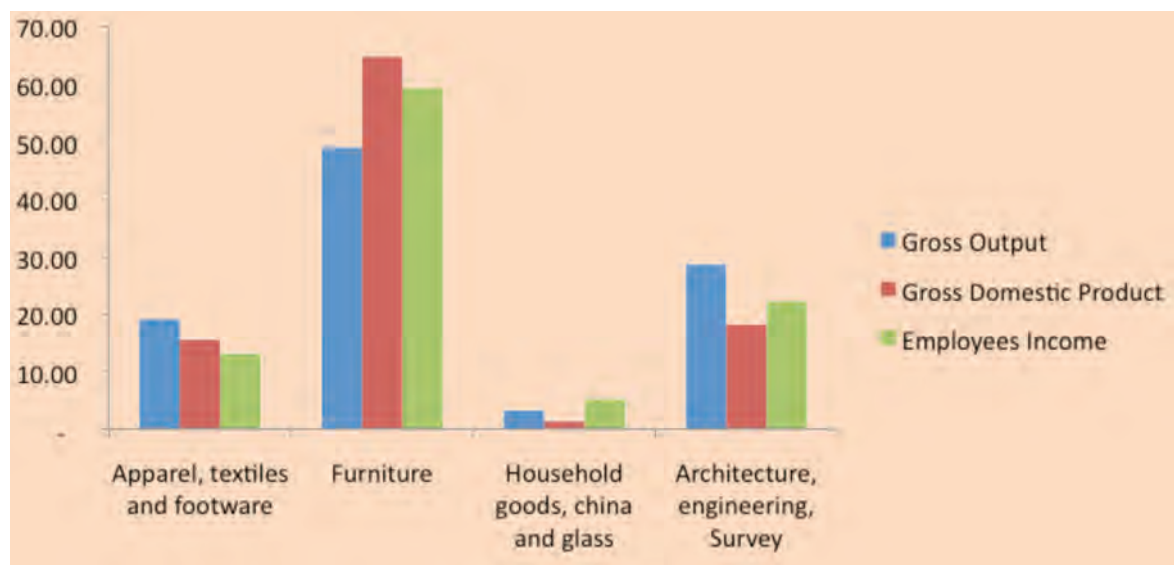
The partial copyright-based industries contributed K611,014,640 to GDP. When this is decomposed, it is observed that furniture contributed the highest output, amounting to K395,902,070 or 65%, followed by architecture, engineering and survey which contributed K111,163,250 or 18%, while apparel, textiles and footwear contributed K95,643,300 or about 16%.

The partial copyright-based industries employed 851 persons. Taking each component separately; furniture employed 464 persons, apparel, textiles and footwear employed 272 persons, while architecture, engineering and survey employed 68 persons.

Table 4.6: Decomposed partial copyright-based industries' contribution to Malawi's economy in 2009

	Gross Output		Gross Domestic Product		Employees Income		No. of Employees	
	K'000	%	K'000	%	K'000	%		%
Partial copyright industries	1,904,199.53,	100.00	611,014.64,	100.00	200,000.83,	100.00	851	100.00
Apparel, textiles and footwear	363,588.92,	19.09	95,643.30,	15.65	26,357.87,	13.18	272	31.92
Furniture	931,968.19,	48.94	395,902.07,	64.79	118,741.83,	59.37	464	54.55
Household goods, china and glass	62,622.37,	3.29	8,306.02,	1.36	10,428.41,	5.21	47	5.55
Architecture, engineering and survey	546,020.05,	28.67	111,163.25,	18.19	44,472.72,	22.24	68	7.98

Figure 4.10: Decomposed partial copyright-based industries' contribution to Malawi's economy in 2009



4.8 Economic Contribution of Decomposed Non-Dedicated Support Industries in Malawi in 2009

As given in Table 4.6 and shown in Figure 4.10 below, the non-dedicated support industries in Malawi have been classified into:

- general wholesale and retailing
- general transportation
- telephony and Internet

The sum of the GDP for core, interdependent and partial copyright-based industries is K28,247,491,000, while the non-distribution GDP is K896,062,434,000. Using the copyright formula, the NDSI factor is given by:

$$\begin{aligned}
 \text{NDSI Copyright Factor} &= \left(\frac{\text{Value Added for Core, Interdependent and Partial Industries}}{\text{Non - Distribution GDP}} \right) \\
 &= \frac{K\ 28,247,491,000}{K\ 880,720,026,000 + 15,342,408,000} = 0.0315 = 3.15\%
 \end{aligned}$$

The reduced numbers using the copyright factor are given in Annex 4. The non-dedicated support industries contributed K5,593,609,000 to gross output. General wholesale and retailing contributed the highest gross output, amounting to K3,105,140,000 or 56%. Telephony and Internet activity contributed K1,256,471,000 or about 22% and general transport contributed K1,231,998,000 or 22%.

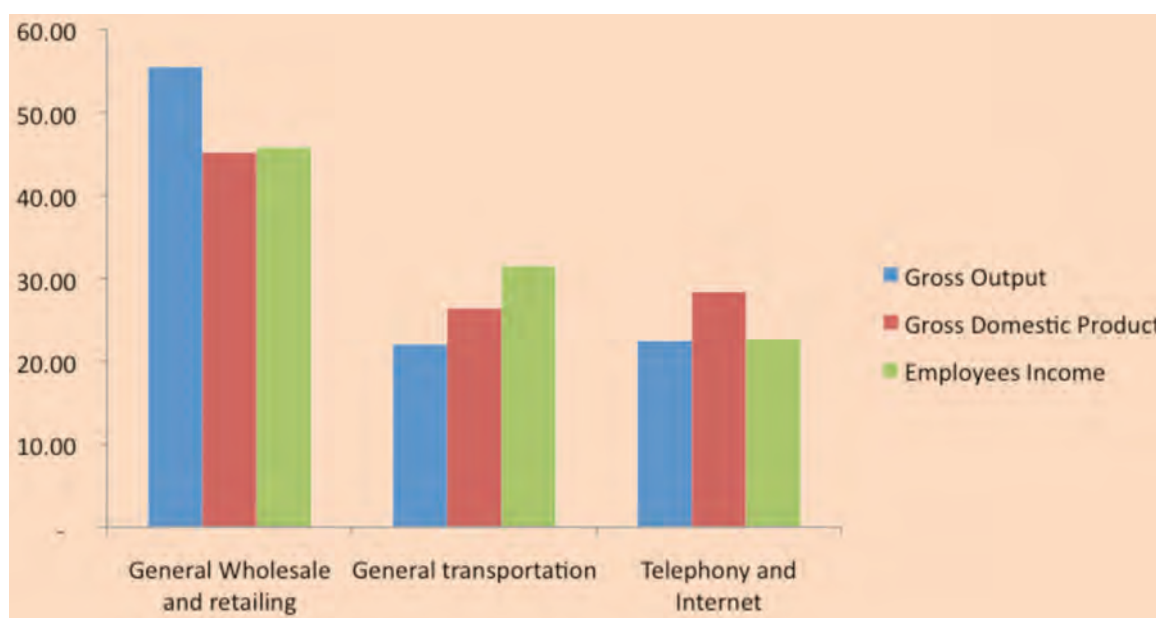
The non-dedicated support industries contributed K2,230,635,000 to GDP. When this is disaggregated, it is observed that general wholesale and retailing contributed the highest gross domestic output, amounting to K1,008,702,000 or 45%. Telephony and Internet contributed K633,155,000 or about 28% and general transport contributed K588,778,000 or 26%.

The non-dedicated support industries employed 1,333 persons. Out of this, general wholesale and retailing employed 763 persons, general transport employed 437 persons and telephony and Internet employed 133 persons.

Table 4.7: Decomposed non-dedicated support industries' contribution to Malawi's economy in 2009

	Gross Output		Gross Domestic Product		Employees Income		No. of Employees	
	K'000	%	K'000	%	K'000	%		%
Non-Dedicated support industries	5,593,609	100.00	2,230,635	100.00	566,912	100.00	1,333	100.00
General wholesale and retailing	3,105,140	55.51	1,008,702	45.22	259,854	45.84	763	57.26
General transportation	1,231,998	22.03	588,778	26.40	178,736	31.53	437	32.74
Telephony and Internet	1,256,471	22.46	633,155	28.38	128,322	22.64	133	10.01

Figure 4.11: Decomposed non-dedicated support industries' contribution to Malawi's economy in 2009



4.9 Foreign Trade in Copyright-Based Goods and Services in Malawi in 2009

The study looked at the exports and imports of creative industries in Malawi in 2009. Initially, trade data from the NSO for 2009 were extracted for imports and exports of commodities using the classification of products as provided by WIPO into the core, interdependent, partial and non-dedicated support copyright industries.

The results of this analysis are presented in Table 4.7. The table presents data on imports and exports of copyright-based goods and services and the trade balance in Malawi in 2009. The copyright-based industries, including the core, interdependent, partial copyright and non-dedicated support copyright goods and services, recorded a negative trade balance. It is evident that Malawi imported more creative industries products than it exported in 2009. The data show that the total products imported in 2009 were valued at K36,550,675,814 compared with its exports valued at K1,249,885,389, giving a negative trade balance of K35,300,790,425. The creative industries imports were 12.3% of the total imports, while the creative industries exports were 0.75% of the total exports.

Table 4.8: Foreign trade of copyright-based industries in Malawi in 2009

	Imports		Exports		Trade Balance
	K	%	K	%	
Core copyright industries					
Press and literature	14,652,359,674	40.09	191,959,198	15.36	-14,460,400,476
Music, theatrical productions, operas	395,201,774	1.08		–	-395,201,774
Radio and television	1,253,958,454	3.43		–	-1,253,958,454
Photography	21,212,345	0.06	15,073,182	1.21	-6,139,163
Total core	16,322,732,247	44.66	207,032,380	16.56	-16,115,699,866
Interdependent copyright industries					
Computers and equipment	2,662,296,654	7.28	87,732,819	7.02	-2,574,563,836
Paper	7,372,792,068	20.17	91,990,536	7.36	-7,280,801,533
Total interdependent	10,035,088,723	27.46	179,723,354	14.38	-9,855,365,368
Partial copyright industries					
Apparel, textiles and footwear	3,708,713,534	10.15	30,445,800.30	2.44	-3,678,267,733
Furniture	1,709,138,159	4.68	760,380,823.98	60.84	-948,757,335
Household goods, china and glass	134,272,575	0.37	38,176,917.61	3.05	-96,095,657
Total partial	5,552,124,267	15.19	829,003,542	66.33	-4,723,120,725
Non-dedicated support industries					
Telephony and Internet	4,640,730,577	12.70	34,126,112	2.73	-4,606,604,465
Total non-dedicated	4,640,730,577	12.70	34,126,112	2.73	-4,606,604,465
Total copyright-based	36,550,675,814	100.00	1,249,885,389	100.00	-35,300,790,425
Total Malawi	298,169,609,916		167,687,743,591		130,481,866,325

When the imports and exports are examined using the WIPO classification, it is noted that about 44.7% of the total imports were from core copyright-based industries, 27.5% were from interdependent copyright-based industries, 15.2% were from partial copyright industries and 12.7% were from non-dedicated support industries. In the case of exports, the majority of copyright-based industries products that were exported were from partial copyright industries, 66.3%, while core copyright-based industries contributed only 16.7% of the exports and interdependent copyright-based industries contributed 14.4% in 2009. It is worth noting that furniture exports were about 61% of the total copyright-based industries exports, while press and literature contributed 15%.

Figure 4.12: Foreign trade of copyright-based industries in Malawi in 2009

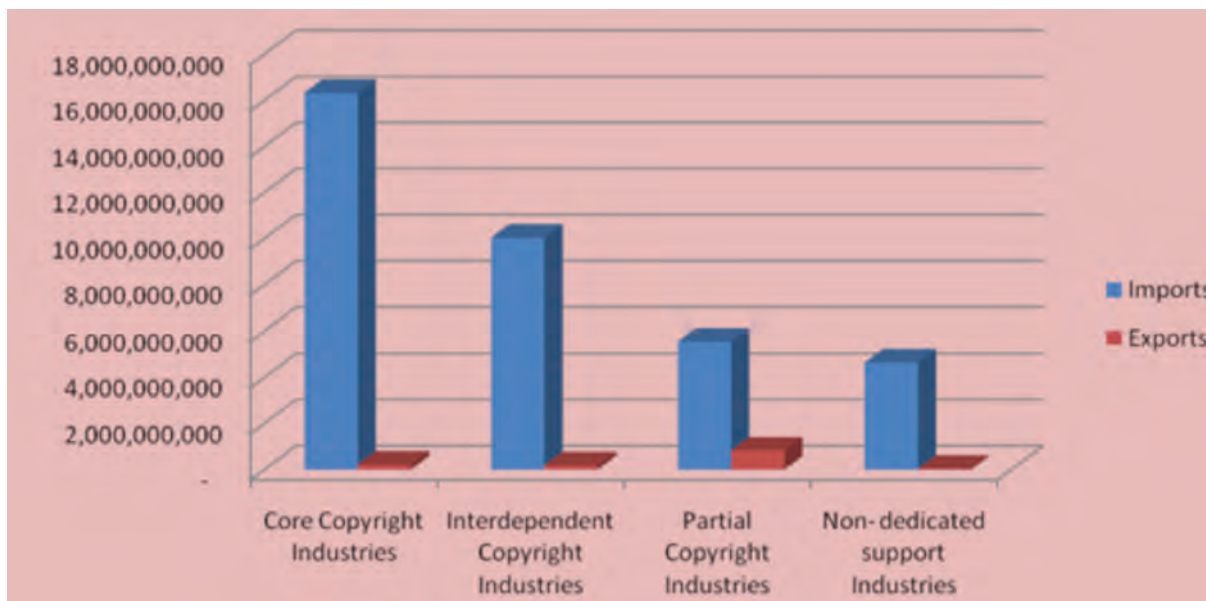


Figure 4.13: Exports of copyright-based industries in Malawi in 2009

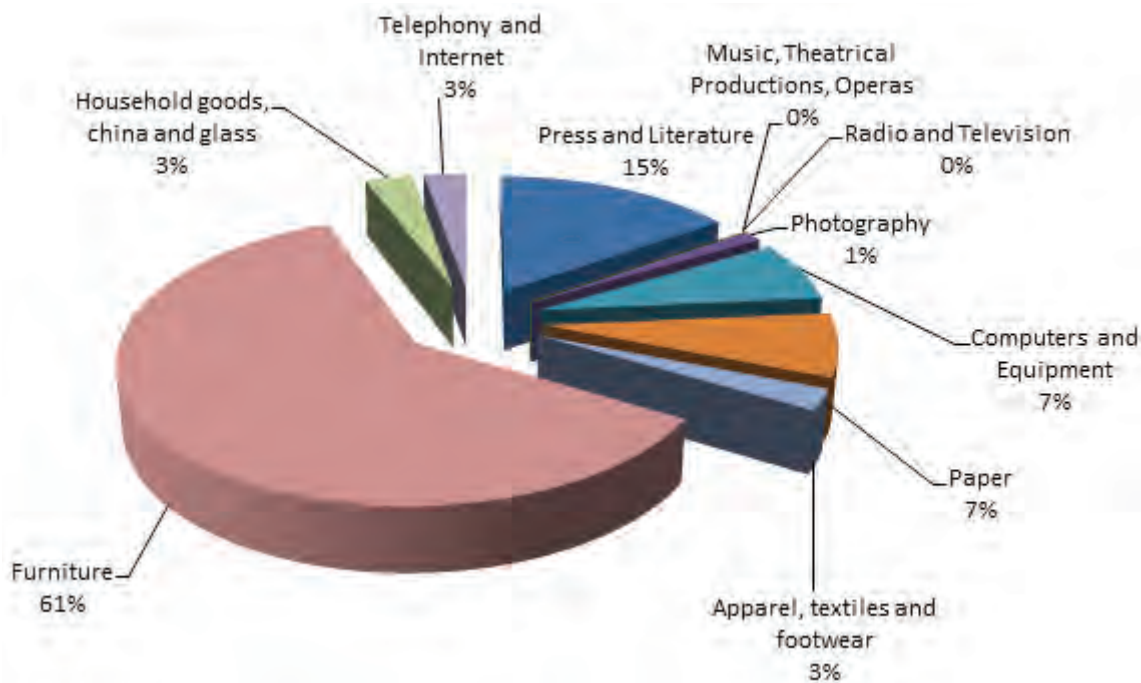
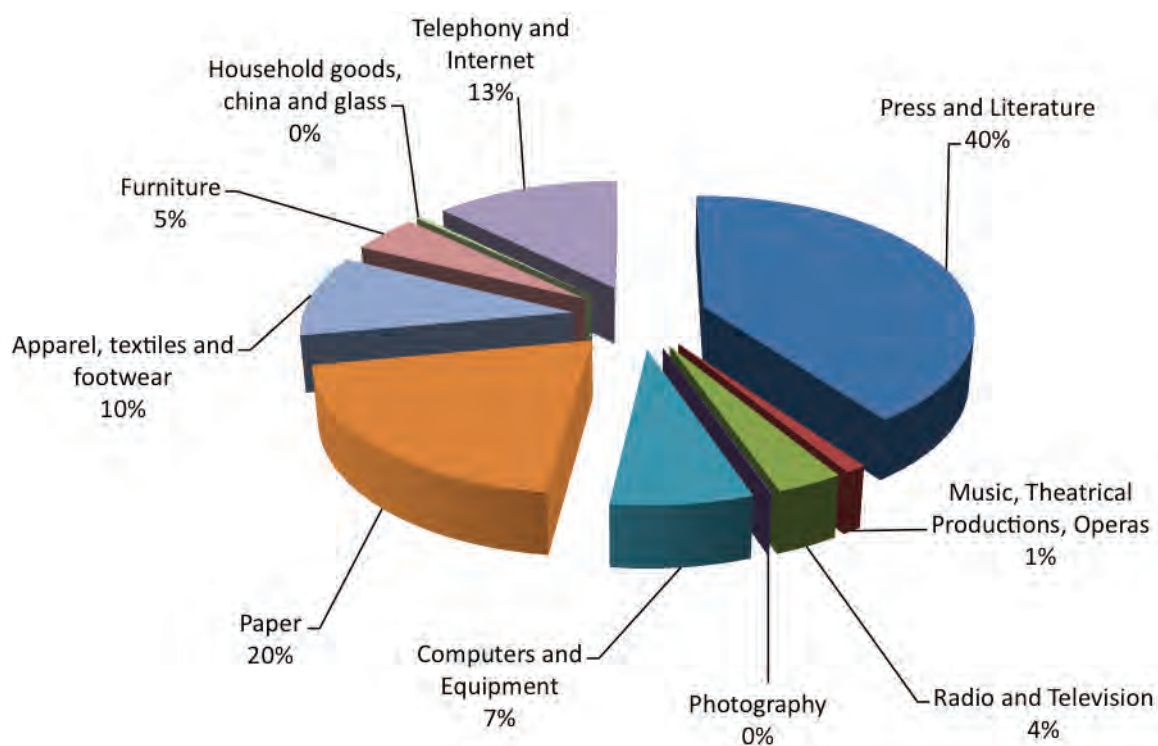


Figure 4.14: Imports of copyright-based industries in Malawi in 2009



5. Development of Some Core Copyright-Based Industries in Malawi

5.1 Introduction

This chapter gives a brief picture of the development of some core copyright-based industries in Malawi. As can be appreciated, the said industries are impacted by economic, regulatory and historical factors: the chapter therefore reviews the prevailing situation in order to provide the context within which to interpret the results. The information presented originates from interviews that were conducted with some key right holder associations representing the press, literature, music, photography, drama, film, software and databases, as well as with COSOMA, the only collecting society operating in the country.

5.2 Policy and Regulatory Framework

The main policy framework for supporting the development of copyright industries has remained in draft form since 2005. Both the Classification Bill for regulation of content and the reviewed Copyright Bill, having been completed in 1998 and 2009 respectively, are yet to be enacted. The provision in the Arts and Craft Act (Cap.49:07), establishing the Arts and Craft Advisory Council, is yet to be operationalized by constituting the ten-member council. Its absence has meant that associations in the arts and craft sector are denied the access to government subsidies that is possible for their counterparts in the sports sector who operate under the National Sports Council. The absence of a cultural policy has meant that the copyright-based industries are not mainstreamed in the economic activities of the country, thus being denied their legitimate share of funding from the national budget.

Other ancillary policies that would affect the development of the copyright-based industries, but are absent, include a book development policy and a national language policy. A book policy is necessary for the development of authorship, as it would encourage Malawian authors to write books, both fiction and textbooks. It is therefore not surprising that, in the absence of such a framework, the list of prescribed textbooks for the education curricula in Malawi is heavily dominated by foreign authors, especially at secondary and tertiary levels. There is a draft on book policy that has been in existence since 2003 which is awaiting approval by Cabinet.

5.3 Funding for the Cultural Sector from Government

The development of the core copyright-based industries is closely linked to the amount of investment in the sector, either from public resources or through private financing. Despite increased recognition by government of the cultural and creative industries as a promising sector for economic growth and poverty reduction, there had not been a marked increase in funding in the year studied. In fact, funding to the ministry responsible for culture had at best stagnated and at worst been reduced. There was a substantial increase of funding to the Culture Ministry in 2009/10, almost two-fold from the previous year, which is attributed to lobbying by the said Ministry.

With the exception of Norway, there are few donors interested in funding the cultural sector with substantial amounts and in a predictable way. Countries that have provided limited funds on an *ad hoc* basis include Spain, France, Japan and Germany.

Table 5.1: National budget for culture in K (2007/08 to 2011/12)

Cultural services	2007/08	2008/09	2009/10	2010/11	2011/12
Arts and craft	3,018,727	3,610,726	9,098,915	8,580,202	9,502,504
Museum of Malawi	1,298,035	1,614,580	12,738,481	12,012,282	3,389,557
Cultural services (HQ)	3,173,079	9,679,999	22,370,779	28,352,576	19,069,748
Antiquities Services	6,269,402	7,942,220	13,648,373	12,870,303	13,651,754
National Archives of Malawi	3,018,727	3,610,726	9,098,915	8,580,202	9,502,504
Censorship Board of Malawi	8,741,092	10,455,296	14,740,243	13,899,927	14,100,000

Source: Department of Culture

5.3.1 Arts and Craft Education in Malawi

Creative arts, comprising painting, weaving, drawing and designing, are offered as a subject at primary school level, but performing arts, made up of music, drama and dance are missing at this stage. At secondary school level, the two subjects are offered as optional subjects although, due to resource constraints, performing and creative arts are hardly ever offered in most of the secondary schools.

At tertiary level it is only Chancellor College of the University of Malawi which offers degree courses in the performing and creative arts at undergraduate level. However, until 2012 students pursuing a Bachelor of Education degree course were not encouraged to specialise in music, drama and fine arts owing to the fact that such subjects are almost never taught in secondary schools. Those who actually end up specialising in the creative arts find themselves in jobs not related to their specialisation. In order to address the problem, in the 2012 academic year the Department of Fine and Performing Arts introduced courses which link the creative arts to business, including courses like Music and Business and Advanced Music Business.

5.4 Press and Literature

Newspaper publishing in Malawi is dominated by two publishers: Blantyre Newspapers Limited and Nation Publications Ltd. The former has roots dating back to 1895, when it used to publish the *Central African Times* owned by the Tea Planters Association. Until 1993, it was the only company publishing a daily newspaper (the *Daily Times*) whose circulation as of March 2013 stood at 15,000 copies. Other editions published by the same company include *Malawi News* with a circulation of 18,000 copies, *Weekend Times*, whose circulation stands at 14,000, and the *Sunday Times*, which at 13,000 copies has the lowest circulation.

Nation Publications came on the scene on July 29, 1993. According to its distribution department, the company publishes the *Daily Nation*, with a circulation of 16,000 copies, the *Saturday Nation*, whose circulation stands at 35,000 and the *Sunday Nation* at 13,000. Apart from this, it also publishes a weekly paper (*Fuko*) in vernacular, which is distributed for free and has a circulation of 30,000.

The Government, through the Ministry of Information also runs a monthly publication in Chichewa called *Boma Lathu*, meant for free of charge distribution. The paper has been in circulation since independence in 1964.

Other privately owned newspapers sprung up in 1993 to take advantage of the freedom of expression associated with multiparty democracy. The notable ones numbered⁶ six and have since folded up. From time to time, other papers appear, especially around government, parliamentary and presidential elections and mainly for political purposes.

Apart from the newspapers, there are magazine publications with limited circulation, usually not exceeding 3,000 copies per edition. In total, the country has in excess of 60 registered publications⁷ although most of them are inactive.

⁶ *The Monitor, The Enquirer, The Democrat, The Malawi Democrat, The Financial Observer, and The Champion*

⁷ Registrar of Companies Register in the Registrar General's Department.

5.5 Book Publishing

The book publishing industry in Malawi is largely driven by the education sector, which in 2010 had 5,395 primary schools with a total enrolment of 4,034,220 students. In contrast, at secondary level there were only 1,041 schools with an enrolment of 2,033,528 students and with 53,031 teachers. There were eight teacher training colleges, with a student enrolment of 10,951 and 278 lecturers. The technical and vocational training sector had 15 colleges with a student enrolment of 2,288 and 214 lecturers. Finally, there were in total 11 universities in the country, both public and private, with 11,692 students and 694 professional lecturers and scientists.⁸

It is therefore not surprising that the Book Publishers Association of Malawi (BPAM), the umbrella body representing the interest of publishers, is dominated by textbook publishers who constitute 93 % of the total membership, which stands at 15. Formed in 1996, the association has as its main objective the encouragement of activities designed to promote the marketing of its members' products. It also aims at enhancing literacy in Malawi by promoting a reading culture. This is done through holding book fairs. It also undertakes ancillary activities including training of authors and editors

The major challenge that the members of the Association face, related to market share, is competition from state publishing, especially at primary level, which is carried out by a state publishing house called the Malawi Institute of Education, with the printing and distribution done by the Ministry of Education. Print runs in excess of 600,000 units are common for titles for core subjects. For printing jobs, foreign printers are preferred over local ones, because they are perceived to be cheaper. This may in part explain the negative trade balance of K14,460,400,456 (34.7%) under press and literature. These books are distributed free of charge in the first eight years of primary education; private publishers are therefore left to scramble for the secondary and tertiary levels. Negotiations with government are at an advanced level to convince it to leave publishing of textbooks at primary level to the private sector.

The other challenge relates to the presence of book piracy and photocopying due to a shortage of books. The problem of photocopying is already being addressed by COSOMA through its reprographic licensing agreements with both public and private educational institutions. The process involves the negotiation of agreements with users of copyright-protected works who undertake photocopying and similar reproductions in the course of either their work or education and the collection of remuneration for eventual distribution to the right holders.

In response to the problem of book piracy, BPAM requested COSOMA to extend the application of the hologram to books published with authorisation from publishers. COSOMA already affixes adhesive holograms to all legitimate sound carriers, as is required by law. This helps both the public and law enforcement agents to identify counterfeits. Nationally there has been an attempt to deal with the problem of counterfeits, not only as it relates to book and music piracy but including other intellectual property products, by coming up with an anti-counterfeit policy. This is an initiative of the Ministry of Trade and Private Sector Development, but the draft which was ready in 2007 is yet to be adopted by the government.

The sector is also battling the problem of a poor reading culture which has been exacerbated by the penetration of television and other technologies including the Internet. The reading culture is even worse in the rural areas as a result of minimal access to electricity and the rate is only 7% according to the 2008 Malawi Population and Housing Census reports published by NSO.

The Publishers Association, in an attempt to improve the situation, has introduced a 'reading circles programme' which involves identification of schools with existing libraries and stocking the libraries with books from the Association members on the understanding that the schools will let the community have access to their libraries. According to the President of the Association, the programme has been piloted in four schools and it is yet to be rolled out.

Finally, the cumulative tax regime implemented by the state on locally produced books has the effect of making them more expensive than imported ones. This further stifles the growth of an already struggling industry.

⁸ Education Statistics 2011, Department of Education Planning, Ministry of Education, Science and Technology, Education Management Information System

5.6 Music

The music sector is made up of a multiplicity of stakeholders including composers, choreographers, singers and promoters. The sector has witnessed stable growth in the past 20 years. Growth is closely associated with the presence of COSOMA which has had a modernising effect on the industry. Statistics in terms of venues and attendance to performances are hard to come by, because most of the enterprises plying their trade in this area are relatively small and record-keeping is not a priority. Live performances by music bands have, with the exception of two groups, largely been replaced by disco outfits, which in 2010 numbered 260.⁹

In terms of recorded music, the industry has for a long time been dominated by one player, the Afri-Music Company, which manufactures and distributes about 90% of the music. Between 2001 and 2011, COSOMA sold holograms totalling 14 million, representing 14 million units with a street value of K4, 200,000,000 at the current price of K300 per unit; 95% of these were locally recorded works. The market for foreign music is equally big, but there is an absence of licensed subpublishers to supply it with legitimate products.

Successful recording artists have been known to sell in excess of 230,000¹⁰ units locally of a single album. This local success has not been replicated abroad, largely due to absence of professional record companies to negotiate publishing deals with foreign counterparts. The other reason advanced for absence of foreign trade in sound recordings is lack of originality of Malawian music. A project to digitise the musical recordings of traditional songs dating back to the 1950s held by the public broadcaster (Malawi Broadcasting Corporation) and make them available to the public is intended to address the problem of originality and also to facilitate the creation of tunes unique to Malawi and identified with it in the same way as reggae is with the Caribbean.

Championing the creation of a unique Malawian 'sound' is MAM, which is a grouping of players in the musical field with a registered membership of 1,600 in October 2010, a rise from 900 in 2002. Its objectives include: fighting piracy – in this regard it plays a complementary role to COSOMA; lobbying various stakeholders for the improvement of the welfare of musicians; and equipping its members with artistic skills through various skills training.

Challenges to the music sector in general include the following:

- General lack of investment due to failure by investors to comprehend the complicated business of music, leaving creators to double up as business people as well;
- Piracy, especially of foreign recorded works due to absence of foreign record companies or partnerships with local companies;
- Insufficient infrastructure, including performance venues, recording studios and training centres, to support the development of music.

5.7 Photography and Visual Arts

Both the photography and visual arts sectors are not well structured and most operators are largely informal, with the exception of three establishments. Effort is being made by PHOTAMA, an umbrella body for photographers, to formalise and organise the sector. The association's membership stands at 450,11 of which are not a true reflection of the number of individuals plying their trade in this field since its footprint has so far been limited to the three major cities of Blantyre, Lilongwe and Mzuzu. The association has, however, embarked on a nationwide membership recruitment exercise to make it truly national and also to promote the value of photography as an art and an occupation. PHOTAMA hopes to achieve this through the establishment of photography clubs in schools, especially at secondary school level, courtesy of funding from COSOMA under the Cultural Support Scheme (CSS).

The visual arts sector, like the other arts sectors, lacks the basic support structure within which to flourish. For instance, there is no national art gallery in the country; with the exception of Ku Ngoni Arts which offers skills training and also functions as a sale outlet for locally produced art works, there are no arts training centres.

⁹ COSOMA 2010 annual audited accounts

¹⁰ COSOMA hologram tracker software which tracks unit sales and use.

¹¹ Photama 2011 membership register

Major outlets for visual art works number three and all of them are foreign-owned. The contribution to the economy of this sector of 1.2% in export earnings is largely attributed to La Carvena, La Galleria and Central Africana.

The visual arts sector has an association called the Visual Artists Association of Malawi (VAAM) with a membership of 150 individuals. A review of the membership registry of VAAM reveals that the group is largely made up of budding visual artists and is yet to attract established practitioners.

5.8 Motion Pictures and Theatre

Malawi has had no local film production company until recently. Productions of films, most of which were documentaries, was the preserve of the Film Unit under the Ministry of Information and Broadcasting. The Ministries of Agriculture and Health also had film production units for the dissemination of ministry-specific messages and for conducting awareness campaigns related to a specific sector.

The first wholly Malawian film production company, called First Dawn Arts, only came on the scene in 2010 with a production entitled *Seasons of Favour* which won a number of awards. Since then, individuals interested in the development of the local film industry have come together to form an association called the Film Association of Malawi.

Since 2010 there have been five film productions, with one benefitting from a grant under the CSS which is a grant facility to the arts established by the Royal Norwegian Embassy and managed by COSOMA. In the absence of a fund for production of local movies, the growth of the local film industry remains stunted.

The theatre sector is not very different from the other arts sectors in terms of levels of development. Theatre performances have largely been associated with the Association of Teaching English in Malawi (ATEM) which has used theatre as a vehicle for the promotion of spoken English in secondary schools.

At tertiary level, the Department of Fine and Performing Arts as part of their studies from time to time present productions, both in English and Chichewa, which are performed beyond the confines of the campus. Professional theatrical groups have a tendency to die in infancy due to low patronage; Kwathu Drama Group and Nanzikambe Performing Arts stand out as having survived the storm, the former from ticket fees whereas Nanzikambe Performing Arts has been a beneficiary of donor aid since 2004. It registered as a charity in 2008 and received a grant of K200 million from the Norwegian Embassy to implement an arts consolidation and communication programme for the period 2008-2011.

Overall, however, both the film and theatre sectors remain under-developed, unable to claim their rightful place as economic contributors due to insufficient infrastructure, absence of funding from government and lack of training facilities. The National Theatre Association of Malawi, an umbrella body for the sector, is itself in infancy but aims to effectively lobby the relevant stakeholders, including government, for subsidies. Its membership stands at 2,000.

5.9 Copyright Collecting Society

In Malawi, unlike in other countries such as Kenya, Zimbabwe and Zambia, there is only one statutory and multipurpose collecting society operating in the field of music and literary works. COSOMA has more than 4,000 individual members (an increase from 2,500 in 2007) and 10 right holder associations. Created in 1992, it received funding from the government up until 2007 and since then has survived on the 30% administrative fees it deducts from the collection of royalties for broadcasting, public performance, reproduction and photocopying of copyright-protected material. Its collections have risen to K 100,000,000 annually.

In the absence of a national cultural fund, COSOMA, at the request of the Royal Norwegian Embassy, manages a CSS which gives out grants to right holder associations for the various arts to carry out various programmes. Since its inception in 2004 it has made available to the associations in excess of K400,000,000 for the development of the arts.

COSOMA is more than a collecting society, as it also functions as a Copyright Office responsible for enforcement of the Copyright Law and in this regard it has instituted a number of measures to combat piracy

including the introduction of an adhesive hologram label affixed to all legitimate works. The implementation of the hologram has been relatively successful and other countries' collecting agencies, including those of Botswana and Zambia, have come for study visits to find out about it.

Apart from collective management, COSOMA also administers the CSS. The Scheme was established in 2004¹² with funding from the RNE (Phase I: 2004-2007 NOK 1.950 million). The aim of the CSS is to promote and strengthen the capacity of the member associations so that they can serve the interests of their members better. This has been done through distribution of grants to the member associations for various projects. During the first phase of the project, the main focus was to train the leadership in the right holder associations in project management and reorganising and strengthening the structures of the associations.

In the second phase (August 2008-July 2011 NOK5.2 M), COSOMA took some major steps in its funding strategy to the associations. The most important was the shift from decentralised project management, where each association handled its own funds, to setting up a Project Office with two project officers to share the administration of the seven associations between them. The Project Office is responsible, in liaison with the relevant association, for the development of proposals which are then screened and approved by a Grants Committee (with representatives from the Department of Culture, COSOMA secretariat and members). Funds are distributed fairly evenly to each association regardless of size of membership. The Project Office is responsible for accounting and financial reporting to COSOMA. This has eased the administrative burden for each association.

The CSS, now in its third phase (June 2012-May 2015), has widened the list of beneficiaries from seven to ten right holder associations. It further supports other players operating in the arts sector and in this regard it has supported arts festivals, funded the shooting of a local movie and supported the construction of an amphitheatre. It can be said that the CSS is to Malawi what the Cultural Fund is to Zimbabwe. In addition to Norwegian funding, COSOMA receives funds from HIVOS (Euro 60,000 2007-2010) for intensive capacity building of member arts associations, and the National AIDS Commission (NAC) (K44,000,000), which has aimed at increasing awareness and preventing transmission of HIV/AIDS in the creative community

5.10 Software and Database Development

The software industry is still very small and generally not well organised compared with other sectors. It employs between 400 and 500 individuals. The way the sector is structured makes it difficult to estimate the number of companies involved in software development. Major players in this sector are foreign-owned and at the other extreme are small family-run enterprises with a modest capital investment.

The government has woken up to the need for mainstreaming IT in all its activities, to the effect that it annually runs an ICT week through the Department of E-government, which falls under the Office of the President and Cabinet. The Department is also championing the enactment of the first E-legislation in the country, which is a framework for dealing with Internet issues as they relate to various sectors including education, health, commerce and the environment.

Challenges to the sector include the following:

- The sector is not well-organised compared with other sectors in general. The regulatory framework does not regulate the performance. MACRA is only interested in finances and therefore the market is a free-for-all and this brings in distortions of pricing and lowering of standards.
- The government has not done enough to promote local players and therefore most of the business goes to international actors.

¹² Africa Heritage – Research and Consultancy, Zomba report: Review of the Norwegian Support to Culture in Malawi 5.7.11

5.11 Radio and Television

The country had one public broadcaster from independence in 1964 until 1994, when multi-party democracy was introduced. To date the number of licensed broadcasters stands at fifty including eight for TV.

The increased number of stations has had a positive effect on creativity, especially as it relates to music, drama and films. There is satisfaction delivered from having one's song played or indeed one's movie broadcasted. In part, the increase in the songs registered by COSOMA from 3,000 in 1997 to 30,000 in 2010 is attributed to growth in the radio and television sector. Their annual budgets range from K1,000,000 for community radio to K500,000,000 for the public broadcaster.

In terms of pay television, there is only one service provider operating in the country with a subscriber base of under 10,000.

For locally produced content, the broadcasting stations rely on in-house productions as opposed to using independent production houses. This explains the trade deficit of K1,253,958,454, since there are virtually no exports from this sector.

6. Conclusions and Recommendations

The results of the study indicate that the copyright-based industries in Malawi contributed significantly to the national economy in 2009. The contribution by copyright-based industries of 3.46% of the total value added, about 3.65% to the gross output and 3.35% to the total employment, shows that the sector is important to the Malawi economy. The contribution of the copyright-based industries to the national economy on the basis of GDP was higher than that of the mining and quarrying, human health, education, construction and transport and storage sectors.

This was the first time this type of study has been carried out in Malawi. The terms of reference for the study were on the assumption that secondary data were readily available on the economic contribution of copyright-based industries; it was only when the study had started that it became apparent that data availability was going to be a major challenge. This almost derailed the whole study and caused major delays in finalising it. The study initially was based on 2007 economic data for Malawi as those were the latest data available at the commencement of the study. However, after analysis was complete and a draft report had been produced and commented upon, more recent economic data for 2008 and 2009 became available and the Survey Team agreed to redo the analysis based on the 2009 data. The data available from the National Accounts and the AES were already classified by the UN ISIC; however, the major problem was that the data related to large- and medium-scale companies only.

It is noteworthy that most of the creative industries in Malawi, as in most developing countries, are small-scale enterprises that are mostly not registered. For the few that are registered, their financial records are not detailed enough. During interviews conducted with some of the associations, information on their financial performance was scanty. The use of such aggregated data and estimations for the small enterprises may have resulted in the underestimation of the economic contribution of copyright-based industries to the economy of Malawi. Nonetheless, the study has shown that copyright-based industries are important and that there is a need for all stakeholders to take the necessary measures if their contribution is to be acknowledged by the government.

In Malawi currently, cultural policy to guide and regulate the operations and practices of this sector has not yet been finalised. This development has led to a situation where right owners do not fully realise the fruits of their work. There are presently complaints from right owners about being swindled by producers and distributors of their work. There are assertions that those who use work have not paid royalties for some time despite the intervention of COSOMA and even the courts. This may have resulted from lack of awareness on the part of those using other people's rights or from a total disregard of the present laws, which are not enforced.

One major problem that was mentioned by the various associations in the creative industries was piracy. Piracy of both local and international works has rendered most owners of rights unable to benefit fully from their works. There is a need for strong and punitive measures if the country's artisans are to benefit from their works. There is a great need for registration with government authorities, as this will ensure a strong trust and recognition from the government. The copyright-based industries need to learn the culture of keeping records for ease of monitoring and evaluation of their performance. The NSO, working with other stakeholders, should be encouraged to make extra efforts to include the data collection of creative industries.

During the study, the Survey Team faced another challenge with tax records for large and small enterprises that were not classified according to ISIC; the MRA should make every effort to computerise individual records by ISIC so that data can be provided easily, without revealing the identity of the taxpayer which is against the MRA's law.

WIPO need to consider the situations prevailing in developing countries as regards the availability of economic data. The planning of such studies in developing countries must emphasise the feasibility of data collection regarding copyright-based industries, rather than assuming that this type of information is readily available.

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Annexes

Annex 1: Sample Questionnaires

Questionnaire for the contribution of copyright-based and related industries in Malawi's national economy in 2005-2009

BOOKS/NEWSPAPERS/MAGAZINES PUBLISHERS

A. Identification

Name of Establishment/Entrepreneur	Address	Place and Street

Type of Main Activity: _____

Type of Other Activity: _____

When was the business/activity/company established? _____

Are you a member of any association/music society? If yes, list them: _____

What types of Books/Magazines do you publish? _____

Did you have access to any credit facility in 2009? _____

If yes; did you ever receive any credit? _____. Where did you receive it from? _____

Where did you invest it within the business/company? _____

Who are your clients as a publisher?

Clients	Location

As a publisher is piracy a serious problem to you? If yes, how? _____

Did you lose any earnings to piracy in 2009? _____

What are other problems/challenges that your business faced in 2009? Rank them. _____

How did you try to solve the problem? _____

In your opinion, how best do you think these problems can be solved? _____

Who do you think should help solve these problems? _____

Are there any opportunities you know of that are yet to be exploited in this industry? If yes, give examples.

Do you know of any publisher who is involved in a similar activity? If yes, fill in the table below

Publisher	Location

Please answer all questions below. Some questions will not apply to your business. In this case, put 'N/A'. Where the answer to the question is nil, please put 'Nil' or '-'. Audit accounts are not required for this questionnaire. Do not delay completing the form because audited accounts are not available. If you are unable to give precise figures, please give the best estimates you can.

Please report to the nearest thousand Malawi kwacha where there is a value to be provided.

DESCRIPTION	2007	2008	2009
Total number of employees engaged			
Total remuneration (K'000)			
Total sales of Books published-local (K'000)			
Total sales of Books published-exported (K'000)			
Total sales of Magazines published-local (K'000)			
Total sales of Magazines published-exported (K'000)			
Value of stocks End of Year (K'000)			
Value of stocks Beginning of Year (K'000)			
Total cost of Books published (K'000)			
Total cost of Books on marketing (K'000)			
Total other costs of Books published (K'000)			
Total money paid as charges/fees on Books published (K'000)			
Total indirect taxes (K'000)			
Total value of assets/investment/capital (K'000)			
Total number of Books published			
Total percentage of sales of Books published the artists received			
Total sales on published Books-Wholesale unit price (K'000)			
Total sales on published Books -Retail unit price (K'000)			
Total amount of money that would have been earned if there was no piracy on published Books (K'000)			
How much did you receive as Royalties on published Books (K'000)			

Name of respondent : _____

Designation in business: _____

Contact Numbers of respondent: _____ / _____ / _____

Name of enumerator: _____

Date of interview: _____ / _____ /201 _____

Questionnaire for the contribution of copyright-based and related industries in Malawi's national economy in 2005-2009

**DRAMA/THEATRE
DRAMA GROUPS /ACTORS**

B. Identification

Name of Establishment/Entrepreneur	Address	Place and Street

Type of Main Activity: _____

Type of Other Activity: _____

When did you start your profession? _____

Are you a member of any association/society? If yes, list them: _____

What type of drama/actor? _____

Did you have access to any credit facility in 2009? _____

If yes; did you ever receive any credit? _____. Where did you receive from? _____

Where did you invest it within the business/company? _____

Who are your main clients as a dramatist/actor?

Clients	Location

As a dramatist/actor is piracy a serious problem to you? If yes, how? _____

How did you try to solve the problem of piracy? _____

In your opinion, how best do you think the problem of piracy can be solved? _____

Who do you think should help solve the problem of piracy? _____

What are other problems/challenges that your business faced in 2009? Rank them. _____

How did you try to solve the problem? _____

In your opinion, how best do you think these problems can be solved? _____

Who do you think should help solve these problems? _____

Are there any opportunities you know of that are yet to be exploited in this industry? If yes, give examples.

Do you know of any artist who is involved in a similar activity? If yes, fill in the table below.

Dramatist/Actor	Location

Indicate your Sex: Tick

Male=1	
Female=2	

Under which age group are you? Tick

Under 20 years=1	
20 – 50 years=2	
51 years and over =3	

What is your highest education? Tick

None=1	
Primary School=2	
Secondary School=3	
University and above=4	

Please answer all questions below. Some questions will not apply to your business. In this case, put 'N/A'. Where the answer to the question is nil, please put 'Nil' or '-'. Audit accounts are not required for this questionnaire. Do not delay completing the form because audited accounts are not available. If you are unable to give precise figures, please give the best estimates you can.

Please report to the nearest thousand Malawi kwacha where there is a value to be provided.

DESCRIPTION	2007	2008	2009
Total number of employees engaged			
Total remuneration (K'000)			
Total revenue on drama/theatre-local (K'000)			
Total revenue on drama/theatre-exported (K'000)			
Total other revenue on drama/theatre (K'000)			
Total expenditure on drama/theatre (K'000)			
Total expenditure on drama/theatre on marketing (K'000)			
Total other costs on drama/theatre (K'000)			
Total money paid as charges/fees on drama/acting (K'000)			
Total indirect taxes (K'000)			
Total value of assets/investment/capital (K'000)			
Total number of plays produced			
Total number of copies produced			
How much did you receive as Royalties (K'000)			

Name of respondent: _____

Designation in business: _____

Contact Numbers of respondent: _____ / _____ / _____

Name of enumerator: _____

Date of interview: _____ / _____ /201 _____

Annex 2: Economic Contribution of Copyright-Based industries Based on Annual Economic Survey 2009 before Applying Copyright Factors

		Output	Value-added	Remuneration	
		(K'000)	(K'000)	(K'000)	Employment
1. Core copyright industries		10,302,313	4,417,170	2,389,134	5,153
	Press and literature	5,472,370	1,935,624	972,874	1,339
	Music, theatrical productions, operas	2,568,953	1,555,869	536,002	2,645
	Radio and television	1,302,760	331,087	781,460	1,038
	Photography	170,231	61,610	53,450	50
	Software and databases	22,409	18,447	3,016	4
	Visual and graphic arts	427,802	329,042	3,518	50
	Advertising services	270,639	135,189	30,776	7
	Copyright collecting societies	67148.96	50303.324	8037.6	20
2. Interdependent copyright industries		47,381,051	23,219,306	5,897,923	19,366
	Computers and equipment	26,235,280	14,306,849	3,258,814	10,294
	Musical instruments	600,876	137,180	45,841	98
	Paper retail sale	890,477	175,045	82,899	174
	Paper manufacturing	19,654,419	8,600,231	2,510,369	8,800
3. Partial copyright industries		38,142,455	13,241,920	4,193,490	19,467
	Apparel, textiles and footwear	8,455,556	2,224,263	612,974	6,318
	Furniture	22,974,251	9,739,905	2,927,221	11,525
	Household goods, china and glass	1,252,447	166,120	208,568	944
	Architecture, engineering, Survey	5,460,200	1,111,633	444,727	679
4. Non-Dedicated support Industries		177,574,901	70,813,802	17,997,197	42,332
	General wholesale and retailing	98,575,885	32,022,295	8,249,323	24,237
	General transportation	3,911,042	18,691,362	5,674,159	13,859
	Telephony and Internet	39 887,974	20,100,145	4,073,715	4,236

Annex 3: Copyright Factors that were Applied on Annex 2 Data and Derivation of the Copyright Factor for the Non-Dedicated Support Industries

Copyright factors				
Apparel, textiles and footwear	4.3	Integrated Household Survey 2 – NSO 2005		
Furniture	3.8	Integrated Household Survey 2 – NSO 2005		
Household goods, china and glass	5	Hungary		
Architecture, engineering, survey	10	Hungary		
SME- Manufacturing	4.1	Average of Apparel and Furniture		
Non-dedicated support industries	Value added for core, partial and interdependent/Non-distribution GDP			
		Value-added core	4,417,170	28,247,491
		Value-added interdependent	23,219,306	
		Value-added partial	611,015	
		Non-distribution GDP		
		GDP	881,562,200	880,720,026
		Value added of general trans	172,240	842,174
		General wholesale and retail	175,626	
		Telephony & internet	494,309	
		Distribution industries in core	1,935,624	15,342,408
		Interdependent	13,398,478	
		Partial	8,306	
Copyright factor for non-dedicated support industries				0.0315

Annex 4: Economic Contribution of Copyright-Based Industries Based on Annual Economic Survey 2009 after Applying Copyright Factors to Partial Copyright-Based Industries and Non-Dedicated Support Industries

		Output	Value-added	Remuneration	
		(K'000)	(K'000)	(K'000)	Employment
1. Core copyright industries		10,302,313	4,417,170	2,389,134	5,153
	Press and literature	5,472,370	1,935,624	972,874	1,339
	Music, theatrical productions, operas	2,568,953	1,555,869	536,002	2,645
	Radio and television	1,302,760	331,087	781,460	1,038
	Photography	170,231	61,610	53,450	50
	Software and databases	22,409	18,447	3,016	4,
	Visual and graphic arts	427,802	329,042	3,518	50
	Advertising services	270,639	135,189	30,776	7
	Copyright collecting societies	67148.96	50303.32	8037.6	20
2. Interdependent copyright industries		47,381,051	23,219,306	5,897,923	19,366
	Computers and equipment	26 235,280	14,306,849	3,258,814	10,294
	Musical instruments	600,876	137,180	45,841	98
	Paper retail sale	890,477	175,045	,82,899	174
	Paper manufacturing	19,654,419	8,600,231	2,510,369	8,800
3. Partial copyright industries		1,904,200	611,015	200,001	851,
	Apparel, textiles and footwear	363,589	95,643	26,358	272
	Furniture	931,968	395,902	26,357	464
	Household goods, china and glass	62,622	8,306	10,428	47
	Architecture, engineering, survey	546,020	111,163	44,473	68
4. Non-dedicated support industries		5,593,609	2,230,635	566,912	1,333
	General wholesale and retailing	3,105,140	1,008,702	259,854	763
	General transportation	1,231,998	588,778	259,854	437
	Telephony and Internet	1,256,471	633,155	128,322	133
	Total copyright-based industries	65,181,174	30,478,126	9,053,969	26,704
	TOTAL FOR THE ECONOMY	1,786,261,800	881,562,200	,27,498,336	797,680
	% contribution of CBI	3.65	3.46	3.98	3.35

Annex 5: Reduced Values of Partial Copyright-Based Industries and Non-Dedicated Support Industries

Contribution of decomposed partial copyright-based industries to gross domestic product in Malawi (K'000)		
Partial Copyright Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	13,241,920	611,015
Apparel, textiles and footwear	2,224,263	95,643
Furniture	9,739,905	395,902
Household goods, china and glass	166,120	8,306
Architecture, engineering, Survey	1,111,633	111,163
Contribution of decomposed partial copyright-based industries to employees in Malawi (Number)		
Partial Copyright Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	291,661,655	851
Apparel, textiles and footwear	6,318	272
Furniture	11,525	464
Household goods, china and glass	944	47
Architecture, engineering, survey	679	68
Contribution of decomposed partial copyright-based industries to employees income in Malawi (K'000)		
Partial Copyright Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	145,821,094	200,001
Apparel, textiles and footwear	612,974	26,358
Furniture	2,927,221	118,742
Household goods, china and glass	208,568	10,428
Architecture, engineering, Survey	444,727	44,473
Contribution of decomposed non-dedicated support industries to gross domestic product in Malawi (K'000)		
Non-dedicated Support Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	70,813,802	2,230,635
General wholesale and retailing	32,022,295	1,008,702
General transportation	18,691,362	588,778
Telephony and internet	20,100,145	633,155
Contribution of decomposed non-dedicated support industries to employees in Malawi (Number)		
Non-dedicated Support Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	42,332	1,333
General wholesale and retailing	24,237	763
General transportation	13,859	437
Telephony and internet	4,236	133
Contribution of decomposed non-dedicated support industries to employees income in Malawi (K'000)		
Non-dedicated Support Industries	Value-added before applying copyright factor	Value-added before applying copyright factor
Total	17,997,197	566,912
General wholesale and retailing	8,249,323	259,854
General transportation	5,674,159	178,736
Telephony and Internet	4,073,715	128,322

The Economic Contribution of Copyright-Based Industries in Tanzania

Report for
World Intellectual Property Organization (WIPO)

By

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Acronyms

AVI	Audiovisual Institute
BAMVITA	Book Development Council of Tanzania
BBC	British Broadcasting Corporation
BSAT	Booksellers Association of Tanzania
BEKE	Bantu Education Kinema Experiment
BOT	Bank of Tanzania
BRELA	Business Registration and Licensing Agency
CMO	Collective Management Organization
CNN	Cable News Network
COI	Central Office of Information
COSOTA	Copyright Society of Tanzania
DDC	Dar-es-Salaam District Council
DTTB	Digital Terrestrial Television Broadcasting
EU	European Union
GDP	Gross Domestic Product
GVA	Gross Value Added
ICT	Information and Communication Technology
IP	Intellectual Property
ISIC	International Standards of Industrial Classification
KOPITAN	Reproduction Rights Society of Tanzania
MCT	Media Council of Tanzania
NBS	National Bureau of Statistics
NDSI	Non-Dedicated Support Industries
n.e.c	Not Elsewhere Classified
NUTA	National Union of Tanganyika Workers
RTD	Radio Tanzania Dar-es-Salaam
TBC	Tanzania Broadcasting Corporation
TBS	Tanzania Broadcasting Service
TCRA	Tanzania Communications Regulatory Authority
TFC	Tanzania Film Company
TIN	Tanzania Identification Number
TRA	Tanzania Revenue Authority
TUKI	Taasisi ya Uchunguzi wa Kiswahili (Institute of Kiswahili Research)
TZS	Tanzania Shilling
UDA	Usafiri Dar-es-Salaam (Public Transport in Dar-es-Salaam)
UNESCO	United Nations Educational, Scientific and Cultural Organization
VA	Value Added
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Organization
WPPT	WIPO Performances and Phonograms Treaty

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Dickson Nyariki

Summary

Copyright and related rights industries, also called copyright-based industries, are a component of what are usually referred to as the creative industries. These are economic activities based on the creation, management, use of and trade in original creations expressed in tangible form. They are intangible assets made up of a bundle of exclusive economic rights to do certain acts with original works or other copyright subject-matter. There has recently been increased interest in copyright due to the growing recognition of its role, which goes beyond the view that it is simply focused on providing legal protection and a working environment conducive to creative activity. This has been demonstrated by the number of studies conducted to quantify the contribution of copyright-based industries in several countries in Europe, America, Asia and Africa. Copyright involves a significant economic impact at both the business and national levels; enhanced understanding of the economic contribution of copyright would enable governments to have an increased focus on mainstreaming copyright-based industries in their development policies.

The main objective of this study was to quantify the economic contribution of copyright-based industries in Tanzania by estimating their value-added contribution to GDP, share of national employment, and revenue generated from foreign trade. In addition, the study aimed at providing material to assist in the formulation of adequately informed policies in order to improve the operation of the creative sector in the country. The WIPO Guide (2003) was used as a methodological basis for this research. The Guide classifies the copyright-based industries into core, interdependent, partial, and non-dedicated support industries (NDSIs). The study depended mainly on secondary data covering the years 2006-07 to 2009-10. The main sources of these data were government departments and other related organizations, including the National Bureau of Statistics (NBS), Tanzania Revenue Authority (TRA), Business Registration and Licensing Agency (BRELA) and the Copyright Society of Tanzania (COSOTA), which is the only collective management organization (CMO) that also serves as a copyright office.

This study has generally demonstrated that copyright-based industries in Tanzania make a significant contribution to the national economy. The copyright-based industries generated in 2007-2010 an added-value of between TZS 391.635 and TZS 680.990 billion respectively, translating to a contribution of 3-4.6% to the gross domestic product (GDP). They also generated TZS 38.930 billion and TZS 83.686 billion as income to employees, or a proportion of 2.8 and 5.2% of the total national economic value, and employed 28,202 and 44,331 people, or 4.5 and 5.7% of the total national workforce. In terms of GDP contribution, the copyright-based industries generally performed better than hotels and restaurants, and the mining and quarrying sectors. In fact, the core copyright industries alone contributed more to the national economy than the mining and quarrying sectors in 2009 and 2010 (3.2% and 2.8% respectively), underscoring the important role these industries play in Tanzania.

The results of this Tanzania study were generally consistent with similar studies in Kenya and most other countries. Tanzania's core copyright industries made a contribution of 3.2% of the GDP in 2009. This performance was better than that in 11 studies of countries over various years – including Croatia (3%), Singapore (2.9%), Latvia (2.9%), Lebanon (2.5%), the Russian Federation (2.4%), and Kenya (2.3%). Tanzania also performed well with regard to employment contribution by the core copyright industries, recording a value of 2.6%, and placing the country above seven other countries – Romania (2.4%), Bulgaria (2.3%), Lebanon (2.1%), Jamaica (1.8%), Colombia (1.7%), Kenya (1.2.) and Ukraine (1.2%).

Among the disaggregated copyright industries, the partial industries contributed a proportionally greater value of exports over imports compared with the total national exports and imports in 2009, which were 3.9% and 0.8% respectively. For the rest of the copyright industries, however, this result was the reverse. Furthermore, the copyright-based industries had a relatively high import component, predominantly within the interdependent category, resulting in a reduction in value-added figures. This last result is similar to that of Kenya, implying that the structures of external trade in the two countries are somewhat comparable.

The current study was commissioned by WIPO upon request from the Government of Tanzania, in light of the increasing importance of copyright-based goods and services to the economy. It is expected that the results of the study will serve as an important input in prompting the government to act by strengthening policies that will go a long way to support the growth and development of the copyright-based sectors in the country.

1. Introduction

1.1 Background

Copyright and related rights industries (hereinafter referred to as copyright-based industries or simply copyright industries) are “creative industries”. These are described as economic activities based on the creation, management, and use of and trade in original creations expressed in tangible form. UNESCO defines creative industries as those industries that combine the creation, production, and commercialization of contents that are intangible and cultural in nature. These industries have contents that are protected by copyright and they can take the form of goods or services.

A further distinction exists between creative/copyright industries and cultural industries. While creative industries are industries that are dependent on one’s skills, and copyright industries are a subset of the former, cultural industries are culture-based and mostly depend on government funding.

As noted above, copyright is an intangible asset, and is made up of a bundle of exclusive economic rights to do certain acts with original works or other copyright subject-matter. These include the rights to publish, copy, communicate and publicly perform the copyright material. Examples of works covered by the copyright law include literary and artistic works such as novels, poems, plays, films, musical works, drawings, paintings, photographs, sculptures and architectural designs.¹

There has been an increased interest in copyright in the recent past due to the growing recognition of its role, which goes beyond the view that it is simply focused on providing legal protection and a working environment conducive to creative activity. Copyright has a significant economic impact both at the business and national levels. As a result of the increased understanding of the value of copyright, governments have an increased focus on mainstreaming copyright-based industries in their development policies. The increase in interest in this area is a result of several specific factors, including:

- There has been increased recognition of the role of intellectual property (IP) in post-industrial society, where more attention is being paid to non-material production factors.
- The scope of copyright protection has widened as a result of digital technology, which has increased the economic gains from different technology-based products and services.
- Because of the digital revolution, copyright-protected material has been recognized as one of the main components in electronic commerce and digital transactions.
- There has been a strong realization that creativity is the basis for the social, economic and cultural growth of nations.

The current study is one of a series of national studies on the economic contribution of copyright-based industries (37 at the time of the completion of the current study). So far, five countries in Africa have been involved in these studies: Kenya, Malawi, Nigeria, South Africa and Tanzania. Of these, Kenya was the first African country to have successfully completed the study, which has been published by both the Government of Kenya and WIPO.²

These studies have generally demonstrated that copyright-based industries make a significant contribution to national economies. Taking Kenya as an African example, copyright-based industries in 2007 contributed over 5% of the country’s GDP. As a percentage of GDP, this contribution was higher than that of the agricultural sector, education, or healthcare. The contribution of Kenya’s copyright-based industries also compared reasonably well with those of other countries outside Africa that had conducted similar studies earlier, such as

¹ World Intellectual Property Organization (WIPO) (2003). Guide to Surveying the Economic Contribution of the Copyright-Based Industries. WIPO, Geneva.

² 1. Nyariki, D., Wasonga, O., Otieno, C., Ogadho, E., Ikutwa, C. and Kithinji, J. (2009). The contribution of copyright and related industries to Kenya’s national economy: A study based on the WIPO Guide. Government of Kenya, Nairobi.

2. Nyariki, D., Wasonga, O., Otieno, C., Ogadho, E., Ikutwa, C. and Kithinji, J. (2011). The economic contribution of copyright-based industries in Kenya, in WIPO, National studies on assessing the economic contribution of the copyright-based industries. WIPO Publication No. 1024e, WIPO, Geneva.

Hungary and even Singapore. In fact, Kenya's industries outperformed those of Colombia, Jamaica, Bulgaria, Mexico and Ukraine.

No wonder, then, that the copyright-based sectors are attracting increasing scrutiny from economists worldwide, as the industry players become more aware of the value of this intangible asset. The interest from lawyers has also expanded, leading to a widening of the scope of the copyright laws in these countries. Furthermore, copyrighted materials are fast emerging as one of the main components in electronic commerce and digital transactions, with products such as music being deemed essential for ring-tones, etc.

The Tanzanian study is based on the WIPO Guide (2003), and is the first of its kind in the country. The motivation behind researching the economic contribution of copyright-based industries in Tanzania is to make policymakers aware of the economic importance of these industries. This is expected to encourage the mainstreaming of copyright-based industries in the development policies of Tanzania. In the light of the increasing importance of copyright-based goods and services to the economy, the Government of Tanzania requested WIPO's assistance in facilitating this study. The results will provide input that can be used to improve the policy framework for the operation of the creative sector in the country. In addition, the results of this study will serve as an important input in promoting the growth and development of the copyright-based sectors in the country.

1.2 Objectives of the Study

The main objective of this study was to assess the economic contribution and performance of selected copyright-based industries in the national economy of the United Republic of Tanzania by estimating the value they add to GDP, share of national employment, and revenue generated from foreign trade. The study was carried out in close coordination and with the support of the Business Registration and Licensing Agency (BRELA) and WIPO.

Apart from estimating the economic roles of the copyright industries, this study also aimed to analyze the national market structure, value chain, supply and demand patterns, the labor market, policy framework, support from the public and civil sectors (including the roles of the Copyright Society of Tanzania (COSOTA) and other copyright-related organizations), financing mechanisms and implications of the digital environment.

The study proposes policy, strategy and institutional interventions for encouraging the growth and development of copyright-based industries in Tanzania.

1.3 Structure of the Study

This study is structured in seven parts:

- The first part consists of an introduction and a presentation of the objectives, structure and scope of the study.
- The second part presents an overview of the legal copyright framework in Tanzania.
- The third part describes the methodological approaches in collecting and analyzing data, including identification and classification of copyright-based industries in Tanzania. It also presents the copyright factors used and a comparison of Tanzania's industry coding system with that of the International Standard Industrial Classification (ISIC Rev. 3.1) as provided in the WIPO Guide (2003).
- Part four discusses the results of the analysis of the economic contribution of copyright-based industries, adapting the general guidelines presented in the guide to the Tanzanian situation, in terms of value added generated by copyright-based industries, their contribution to employment generation, and income from the various copyright-based sub-sectors.
- The fifth part consists of a discussion of the international trade in copyright-based industries.
- Part six compares the Tanzanian study and similar studies in other countries carried out previously on the basis of the WIPO Guide.

- Part seven provides a description of the development of the main core copyright-based industries in Tanzania.
- The final part presents the conclusions of the study and policy recommendations.

1.4 Scope of the Study

The general scope of this study is to quantify the economic contribution of copyright-based industries in Tanzania in the year 2009, for which the latest economic data have been recorded in government books. However, earlier years and 2010 government projections have been considered in trend analyses of various aspects of the industries. The aggregate data covered Mainland Tanzania. Obtaining data from Zanzibar was too challenging to allow inclusion in this analysis. It is, however, presumed that Zanzibar's contribution to the copyright industries is relatively small and would not in any major way alter the conclusion of this study.

The United Republic of Tanzania was established on April 26, 1964, after the unification of two sovereign states, namely Tanganyika (now known as Mainland Tanzania) and the Island of Zanzibar. Before the union, both countries had earlier received their independence from Britain. The political capital of Tanzania is Dodoma, where the parliament sits, while Dar-es-Salaam is the commercial capital. Dar-es-Salaam is also the educational nerve center of Tanzania, and the main entry port of the country. Zanzibar is more linguistically homogenous and is dominated by exclusively Swahili-speaking communities.

The study approach followed the following steps:

- Identification of the copyright-based industries to be studied, using Annex I of the WIPO Guide as a reference, as well as the selected copyright-based industries, of which more detailed analysis was undertaken.
- Categorization of copyright-based industries into core, interdependent, partial and non-dedicated copyright industries, based on the WIPO Guide.
- Undertaking data collection, mainly from secondary sources, and filling in data gaps using questionnaires and (where appropriate) extrapolation, interpolation or projections.
- Compilation of data by industry class as defined in the WIPO Guide, and disaggregating them to the required level of detail.
- Measurement and calculation of the contribution of the industries studied, including value added figures for the national total GDP, employment, employee income and foreign trade, using a selected approach under the WIPO Guide. This estimation covered the size of the industries measured against macro-economic variables – GDP, employment, and income.

2. Tanzania's Legal Framework for Copyright

2.1 Intellectual Property (IP) Rights

IP rights in Mainland Tanzania are administered by two agencies. One is the Business Registration and Licensing Agency (BRELA), which deals with industrial property consisting of patents, trade and service marks, industrial designs, geographical indications of origin, undisclosed information (trade secrets) and integrated circuits topography. The second is the Copyright Society of Tanzania (COSOTA), which is both a copyright office and a collective management organization (CMO). COSOTA's function is the protection of copyright and neighboring rights, under the Copyrights and Neighbouring Rights Act (1999). The protection covers literary and artistic works such as novels, poems, plays, films, musical works, drawings, paintings, photographs, sculptures and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs.

BRELA and COSOTA are under the supervision of the Ministry of Industry and Trade. Other agencies and institutions involved in enforcing IP are the Fair Competition Commission (FCC), which is also under the Ministry of Industry and Trade, the Judiciary (District Court, Resident Magistrates Court and the High Court), Police, Customs, and the Ministry of Agriculture.

IP rights in Zanzibar are administered by the Office of the Registrar of Trademarks and Patents, which is under the Ministry of State in the President's Office responsible for Constitutional Affairs and Good Governance in the Zanzibar Revolutionary Government.

2.2 Origin and Scope of IP Law

The history of industrial property laws dates back to the colonial era. Since Tanganyika and Zanzibar were British colonies, the laws of the United Kingdom were extended to Tanganyika and Zanzibar. Changes to these laws were effected after independence.

Similar to the industrial property laws, the history of copyright dates back to the colonial era, during which The Copyright Ordinance, Cap 218 (August 1, 1924), was introduced as an extension of the United Kingdom (Imperial) Copyright Act (1911). After independence, the Copyright Ordinance was replaced by the Copyright Act No. 61 (1966), which was in turn replaced by the current Copyright and Neighbouring Rights Act No. 7 (1999) (CAP 218 RE 2002).

The parent law governing copyright industries in Tanzania, the Copyright and Neighbouring Rights Act No. 7 (1999), established COSOTA to act as a copyright office and CMO, as a bridge between the authors and users. In the implementation of the parent Copyright Act, COSOTA is supported by the following regulations:

- The Copyright (Licensing of Public Performances and Broadcasting) Regulations 2003.
- The Copyright and Neighbouring Rights (Registration of Members and their Works) Regulations, 2006.
- The Copyright and Neighbouring Rights (Production and Distribution of Audio and Audio-Visual Recordings) Regulations, 2006.

Other Acts that support the work of COSOTA are given in Box 1:

Box 1: Other Acts that Support COSOTA

- | | |
|--|--|
| <ul style="list-style-type: none">• The Patent Registrations Act (Cap 217 RE 2002).• The Tanzania Investment Act (Cap 38 RE 2002).• The Trademarks Ordinance (Cap 394 RE 2002, 1957).• The Merchandise Marks Act (Cap 85RE 2002).• The Trade Marks Ordinance (1922).• The Protection of New Plant Varieties (Plant Breeders' Rights) Act No 22 (2002).• The Fair Trade Practices Act (1999). | <ul style="list-style-type: none">• The Tanzania Commission for Science and Technology Act (CAP 226 RE 2002).• The Tanzania Engineering and Manufacturing Designs Organisation Act (Cap 176 RE 2002).• The Tanzania Industrial Research and Development Organisation Act (Cap 159 RE 2002).• The Centre for Agricultural Mechanisation and Rural Technology Act (Cap 181 RE 2002).• The Small Industries Development Organisation Act (Cap 112 RE 2002). |
|--|--|

Sections 9 and 10 of the Parent Act and the regulations listed above protect copyright works, including the production and publishing of books, pamphlets and other writings, computer programs, the provision of lectures, addresses, sermons and similar works, productions of dramatic arts and musical works (vocal and instrumental, and whether or not they include accompanying words), choreographic works and pantomimes, cinematographic and other audiovisual works.

Other works that are protected by copyright laws include drawings, paintings, architecture, sculpture, engravings, lithography and tapestries; photographic works including works expressed by processes analogous to photography; works of applied art, whether handcrafted or produced on an industrial scale, illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science; translations, adaptations, arrangements and other transformations of literary and artistic works; collections of literary and artistic works, such as encyclopaedias and anthologies; collections of expressions of folklore and compilations of data or databases which, by reason of the selection and arrangement of their contents, constitute intellectual creations; and works inspired by the expression of folklore.

Section 9 of the Parent Act accords the author exclusive rights to carry out or to authorize acts in relation to: the reproduction of the work; distribution of the work; rental of the original or a copy of an audiovisual work, a work embodied in a sound recording, in a computer program, in a database, or in a musical work in the form of notation, irrespective of the ownership of the original or copy concerned; public exhibition, translation and adaptation of a work; public performance of a work; broadcasting of a work; other communication to the public of a work; and importation of copies of a work.

The author of a protected work has the moral right to claim authorship of his work, in particular that his authorship be indicated in connection with any of the acts referred to in economic rights, and to object to and to seek relief in connection with any distribution, mutilation, or other modification of, and any other derogative action in relation to, his work, where such action would be or is prejudicial to his honor or reputation. This is what is referred to as the moral right.

The Parent Act, Section 5(3), ensures that works shall be protected irrespective of their form of expression, their quality and the purpose for which they were created. This means that registration is not a prerequisite for protection.

2.2.1 Duration of Author's Rights

Section 14 of the Parent Act states that the economic rights of the author shall be protected during the life of the author, and for a period of 50 years after the author's death. In case of a work of joint authorship, the economic and moral rights shall be protected during the life of the last surviving author and for a period of 50 years from his death.

In the case of a work published anonymously or under a pseudonym, the economic and moral rights shall be protected for 50 years from the date on which the work was either first made available to the public or first published, whichever date is the latest, provided that the author's identity is revealed or is no longer in doubt before the expiration of the said period. In the case of audiovisual works, the economic and moral rights

shall be protected for 50 years from the date on which the work was either made, first made available to the public, or first published, whichever date is the latest. In the case of a work of applied art, the economic and moral rights are protected for 25 years from the making of the work.

2.2.2 Expressions of Folklore

Sections 24 to 30 of Part III of the Parent Act protect the expressions of folklore and provide that the National Arts Council of Tanzania is in charge of protecting expressions of folklore, including:

- Folktales and folk poetry.
- Riddles.
- Folk songs and instrumentals.
- Folk music.
- Folk dances, plays and artistic forms of rituals.
- Production of folk art, in particular drawings, paintings, carvings, sculpture, pottery, terracotta, mosaic, woodwork, metalware, jewellery, baskets and costumes.
- Traditional musical instruments.

2.2.3 Protection

Sections 31 to 35 of Part IV of the Parent Act provide for the protection of works produced by the author. They state that, regarding his performance, a performer has the exclusive right to carry out or to authorize:

- Broadcasting or other communication to the public.
- The fixation of an unfixed performance.
- Reproduction of a fixation of a performance in any manner or form.
- The first making available to the public of a fixation or copies thereof, through sale or other transfer of ownership.
- Rental to the public.
- Public lending of a fixation.
- The making available to the public by wire or wireless means.

It further states that a producer of a sound recording has the exclusive rights to carry out or to authorize:

- Reproduction of a sound recording in any manner or form.
- The first making available to the public.
- Rental to the public.
- Public lending of a copy.
- The making available to the public by way of wireless means.

A broadcasting organization has exclusive rights regarding its broadcasts to carry out or to authorize:

- Re-broadcasting.
- The communication to the public.
- Fixation of its broadcast.
- Reproduction.

This protection begins the moment something is broadcast and lasts until the end of the 50th calendar year following the year in which the broadcast, publication or performance took place.

In addition, Section 44 of Part VI of the Parent Act provides protection against acts of circumvention.

2.2.4 Enforcement

Sections 36 to 43 of Part III of the Parent Act provide for the enforcement of the Act. Some of the responses to a breach of the laws are:

- Injunction.
- Payment of any damages.
- Destruction and similar measures.
- Right of delivery.

Any person who knowingly violates, or causes to be violated, the rights protected under the Parent Act shall be liable to:

- A fine not exceeding more than TZS 5 million or imprisonment for a term not exceeding three years, or both, for the first offense if the infringement was on a commercial basis.
- A fine not exceeding TZS 10 million or imprisonment for a term not exceeding five years, or both, for each subsequent offense if the infringement was on a commercial basis.

Any person who, without the authorization of the competent authority, imports or distributes copies of expressions of folklore derived from Tanzania or copies of translations, adaptations, arrangements or other transformations of such expressions of folklore, made abroad without the authorization of the said authority, is guilty of an offense and shall be liable to a fine not exceeding TZS 10 million or imprisonment for a term not exceeding 10 years.

Any person who gives authorization on behalf of performers without being a duly appointed representative, or any person who knowingly proceeds under such an unlawful authorization, shall be guilty of a criminal offense punishable by a fine not exceeding TZS 5 million or imprisonment for a term not exceeding three years.

For any other criminal offense under copyright infringement, the penalty shall be:

- A fine of not more than TZS 4 million or imprisonment for up to three years for the first offense.
- A fine of not more than TZS 8 million or imprisonment for up to two years for each subsequent offense.

2.3 Challenges of Applying Copyright Laws

The execution of Tanzanian copyright law is faced with many challenges. These include the following:

- An outdated law and regulations.
- The copyright office and CMO are placed under one office instead of the copyright office regulating the CMO.
- Lack of resources.
- Lack of public awareness.
- Piracy.
- Low penalties in the current copyright law.
- Lack of training of law enforcers including judicial, police and customs officers.
- Corruption.
- Absence of a national IP policy.
- Absence of a Copyright Tribunal.
- Weak coordination among artists.
- Weak coordination among enforcement agencies.

2.4 Economic Dimensions of Copyright Law

Tanzania's copyright industries are fast emerging as key components of the economic development of the country. Many young people are earning a living from their involvement in these industries. However, this fact has not been adequately studied and quantified, which is the main reason why the Government of Tanzania has placed an emphasis on this study.

As already noted, studies have shown that the protection of copyright works encourages people to be involved in these industries by affording them opportunities to improve their returns, thereby increasing government earnings. The protection of these works has also encouraged investors to invest in these sectors, in turn creating valuable employment for the creators of such works. For example, many engage in importing the materials used in music production and film production, thus creating a value chain that contributes to economic growth. However, Tanzania is not party to the WIPO Copyright Treaty (WCT) or to the WIPO Performances and Phonograms Treaty (WPPT). This comes with disadvantages, including the inability to protect works by Tanzanians exploited abroad, and the reduction in earnings from artists' works consumed outside Tanzania, especially in the context of the digital environment.

3. Methods of Analysis and Data

3.1 Identification and Classification of Copyright-Based Industries

The initial step towards evaluating the economic contribution of copyright-based industries is to identify the industries themselves. The study strictly followed the WIPO methodological guide of 2003 in identifying and classifying these industries in Tanzania. According to the recommendations of the guide, there are four main categories of copyright-based industries:

- Core copyright-based industries.
- Interdependent copyright-based industries.
- Partial copyright-based industries.
- Non-dedicated support industries (NDSI).

The works of the copyright-based industries listed above carry different weights in different sectors of the economy. According to the WIPO Guide, the core copyright-based industries are considered to be completely composed of copyright-protected creative works. The interdependent copyright-based industries constitute industries whose products are consumed jointly with the products of the core copyright industries. Because of resource constraints and time, it is sometimes not possible to conduct surveys to determine the exact copyright contribution of interdependent industries. The copyrighted products of the partial and non-dedicated copyright-based industries are only partly represented. The NDSIs in manufacturing may have no copyright components at all, but distribution industries in NDSIs may have some components.

3.1.1 *Sub-Sectors of Core Copyright-Based Industries*

As mentioned earlier, core copyright-based industries are those industries whose works are wholly or totally based on copyright-protected creative works. These industries in Tanzania can be disaggregated further into several sub-industries or activities, which, according to the WIPO Guide, are:

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

3.1.2 *Sub-Sectors of Interdependent Copyright-Based Industries*

According to the WIPO Guide, interdependent industries are defined as industries that are engaged in the production, manufacture and sale of equipment, the function of which is wholly or primarily to facilitate the creation, production or use of copyright works and other protected subject matter.

This group of industries can be broken down into:

- Manufacture, wholesale and retail of interdependent industries.
- Manufacture, wholesale and retail (sales and rental) of computers and equipment.
- Manufacture, wholesale and retail (sales and rental) of musical instruments.
- Manufacture, wholesale and retail (sales and rental) of photographic and cinematographic instruments.
- Manufacture, wholesale and retail (sales and rental) of photocopiers.
- Manufacture, wholesale and retail of blank recording materials.
- Manufacture, wholesale and retail of paper.

3.1.3 *Sub-Sectors of Partial Copyright-Based Industries*

Partial copyright-based industries are industries in which only a specific proportion of their production is associated with products protected by copyright and related rights. The ratio is indicated by a copyright factor, which shows what percentage of the product is under the protection of copyright. The following industries fall in this category, according to the WIPO Guide (2003):

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

3.1.4 *Sub-Sectors of Non-Dedicated Copyright-Based Industries*

The NDSIs are those in which a portion of their activities is related to facilitating the broadcast, communication, distribution and sale of products and works and other protected subject matter, and whose activities have not been included in core copyright industries. According to the WIPO Guide (2003), the following industries fall into this category:

- General wholesale and retailing.
- General transportation.
- General telephony.

For more clarity, Table 1 summarizes the various copyright-based industries included in each category in the survey of this study.

Table 1: Copyright-Based Industries in Tanzania

I. Core Copyright-Based Industries	II. Interdependent Copyright-Based Industries
Press and literature	Cassette players, electronic game equipment * other similar equipment
Music, theatrical productions, opera	Musical instruments
Motion pictures and video	Manufacture, wholesale and retail of interdependent industries
Radio and television	Photographic and cinematographic instruments
Photography	Blank recording material and paper
Visual and graphic arts	
Advertising services	
Collective Management Society	
III. Partial Copyright-Based Industries	IV. Non-Dedicated Support Industries
Apparel, textiles and footwear	General wholesale and retail
Jewellery and coins	General transportation
Other crafts	
Furniture	Telephony and Internet
Household goods, china and glass	
Wall coverings and carpets	
Toys and computer games	
Architecture, engineering, surveying	
Museums	
Interior Design	
Wholesale and retail	

3.2 Comparisons of Industry Classifications between Tanzania and WIPO

Table 2 shows a comparison of the industries recommended by WIPO and those used in the Tanzania survey. The industries generally correspond, as can be seen from the table, even though a few differences exist, including the absence of some industries from the Tanzania classification.

Table 2: Comparison of Tanzania and WIPO Copyright-Based Industries Classification

Category	WIPO Classification	Tanzania Classification	
I. Core	Press and literature	Press and literature	
	Music, theatrical productions and opera	Music, theatrical productions, opera	
	Motion pictures and video	Motion pictures and video	
	Radio and television	Radio and television	
	Photography	Photography	
	Software and databases		
	Visual and graphic arts	Visual and graphic arts	
	Advertising services	Advertising services	
	Copyright collecting societies	Collective Management Society (COSOTA)	
II. Interdependent	TV sets, radios, VCRs, CD players, cassette players, electronic game equipment, and other similar equipment	TV, radios, VCRs, CD and cassette players, electronic game equipment, and other similar equipment	
	Computers and equipment		
	Musical instruments	Musical instruments	
	Photographic and cinematographic equipment	Photographic and cinematographic instruments	
	Photocopiers		
	Blank recording materials	Blank recording materials	
	Paper	Paper	
	Manufacture, wholesale, retail and rental of interdependent industries	Manufacture, wholesale, retail and rental of interdependent industries	
	III. Partial	Apparel, textiles and footwear	Apparel, textiles and footwear
		Jewellery and coins	Jewellery 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		Interior design	
Museums		Museums	
		General wholesale and retail of partial industries	
IV. Non-dedicated		General wholesale and retailing	General wholesale and retail
		General transportation	General transportation
	Telephony and Internet	Telephony and Internet	
		Cargo handling	
		Postage and courier services	
	Storage and warehousing		

Table 3 compares the names and codes used for the Tanzania industry classification with those of the ISIC (Rev. 3.1). As can be seen in this table, the naming and codes used in the industry classification are often different, with each side of the table having its own flow, so only the main titles of the types of copyright industries correspond between the Tanzania industries and the ISIC. The level of aggregation is higher for the Tanzania classification. It can also be noted that a number of industries are missing in the Tanzania classification.

Table 3: Comparison of Copyright-Based Industries Naming and Coding between Tanzania and ISIC Rev. 3.1

Tanzania's Industry Name and Code		ISIC Rev. 3.1 Name and Code	
I. Core Copyright-Based Industries		I. Core Copyright-Based Industries	
Publishing, printing and reproduction of recorded media	22	Publishing of newspapers	2212
		Publishing of books, brochures etc.	2211
Other publishing	2219	Other publishing	2219
Printing	2221	Printing	2221
Services, activities related to printing	2222	Services related to printing	2222
Activities of business & employers organizations	9111		
Activities of professional organizations	9112	Activities of professional organizations	9112
Activities of trade unions	9120		
Activities of other membership organizations	9199		
		Motion picture and video production	9211
		Motion picture projection	9212
Radio and television activities	9213	Radio and TV activities	9213
Dramatic arts, music, and other artistic activities	9214	Dramatic arts and music etc.	9214
Other entertainment activities	9219	Other entertainment activities	9219
News agency activities	9220	News agency activities	9220
Library and archive activities	9231	Library and archive activities	9231
		Other recreational services	9249
		Other retail sale in specialized stores	5239
		Telecommunications	6420
Radio transmission via cable	6423		
Television transmission via cable	6424		
		Wholesale of other household goods	5139
		Wholesale of computers	5151
		Software publishing	7221
		Other software consultancy and supply	7229
		Database activities and online distribution	7240
		Other business activities	7499
		Publishing of music	2213
		Reproduction of recorded media	2230
		Retail sale of household appliances	5233
		Renting of personal goods	7130
		Wholesale of household goods	5139
Advertising	7430	Advertising	7430
		Photographic activities	7494
		Other business activities n.e.c.	7499
		Data processing	7230
II. Interdependent Copyright-Based Industries		II. Interdependent Copyright-Based Industries	
Manufacture of paper and paper products	2101	Manufacture of pulp, paper and paperboard	2101
Manufacture of other particles of paper and paper products	2109		
		Wholesale of other intermediate products	5149
		Other retail sale	5239
		Manufacture of TV and radio receivers	3230
		Manufacture of office machinery	3000
		Wholesale of computers and equipment	5151
		Renting of office machinery	7123
		Wholesale of other machinery	5159

Table 3: Comparison of Copyright-Based Industries Naming and Coding between Tanzania and ISIC Rev. 3.1 (continued)

Tanzania's Industry Name and Code		ISIC Rev. 3.1 Name and Code	
		Manufacture of photographic and optical equipment	3320
		Other retail sale in specialized stores	5239
		Renting of other machinery	7129
		Retail sale of household appliances, articles and equipment	5233
Other Manufacturing	32		
III. Partial Copyright-Based Industries		III. Partial Copyright-Based Industries	
Manufacture of textiles	17		
Preparation and spinning of textile fibers, weaving of textiles	1711		
Finishing of textiles	1712		
Manufacture of made up textiles articles except apparel	1721	Manufacture of made up textiles	1721
Manufacture of cordage, rope, twine and netting	1723	Manufacture of glass and glass products	2610
Manufacture of other textiles	1729	Wholesale	5139
Manufacture of wearing apparel; dressing and dyeing of leather	1810	Manufacture of wearing apparel	1810
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	19		
Manufacture of rubber footwear	1920	Manufacture of footwear	1920
Sawmilling and planing of wood	2010		
Manufacture of veneer sheets, plywood, laminate board, board particles and other panels and boards	2021		
Manufacture of wooden containers	2023		
Manufacture of other wood products	2109		
Manufacture of furniture	3610	Manufacture of furniture	3610
Manufacture of jewellery and related articles	3691	Manufacture of jewellery and related articles	3691
		Wholesale of textiles, clothing and footwear	5131
		Wholesale	5139
Retail sale of textiles, clothing, footwear and leather goods	5232	Retail sale of textiles, clothing, footwear	5232
Retail sale of household appliances, articles and equipments	5233	Retail sale of household appliances	5233
Retail sale of hardware, paints and glass	5234		
Other retail sale in specialized stores	5239	Other retail sale	5239
		Renting of personal goods n.e.c.	7130
		Library and archives services	9231
		Museum activities and other preservation	9232
Botanical and zoological gardens and nature reserve activities	9233		
Washing and dry cleaning of textile and fur products	9301		
IV. Non-Dedicated Copyright Industries		IV. Non-Dedicated Copyright Industries	
Wholesale on a fee or a contract basis	5110		
Wholesale of machinery, equipment and supplies	5150	Wholesale of machinery, equipment and supplies	5150
Other wholesale	5190		
Other retail sales in non-specialized stores	5219		

Table 3: Comparison of Copyright-Based Industries Naming and Coding between Tanzania and ISIC Rev. 3.1 (continued)

Tanzania's Industry Name and Code		ISIC Rev. 3.1 Name and Code	
		Retail trade except motor vehicles and motorcycles, repairs of personal and household goods	520
Other retail trade of new goods in specialized stores	523		
		Land transport, transport via pipelines	60
Transport via railways	6010	Transport via railways	601
Other scheduled passenger land transport	6021	Other land transport	602
Freight transport by road	6023		
Inland water transport	6120	Water transport	61
Scheduled air transport	6210	Air transport	62
Non-scheduled air transport	6220		
Cargo handling	6301	Cargo handling	6301
Storage and warehousing	6302	Storage and warehousing	6302
		Supporting and auxiliary transport activities	630
Other supporting transport activities	6303	Other supporting transport activities	6303
Activities of travel agencies and tour operators, tourist assistance activities n.e.c.	6304	Activities of travel agencies and tour operators, tourist assistance activities n.e.c.	6304
Activities of other transport agencies (clearing and forwarding agents)	6309	Activities of other transport agencies	6309
		Post and courier activities	641
National post activities	6411	National post activities	6411
Courier activities other than national post activities	6412	Courier activities other than national post activities	6412
Telecommunications	6420	Telecommunications	6420
Internet cafes	6421		
Telephone and fax centers	6422		
		Database activities and on-line distribution of electronic content	7240

3.3 Data

3.3.1 Data Sources

This study relied on secondary data collected from various institutions, including governmental and non-governmental institutions. Some of the government institutions visited were the Tanzania Revenue Authority (TRA), the National Bureau of Statistics (NBS), the Bank of Tanzania (BOT), and the Tanzania Communication Regulatory Authority (TCRA). Other sources included journal publications and government and other reports. Some of the government reports included annual economic surveys.

The study relied heavily on the WIPO Guide and on similar published reports. The incomplete report from an earlier attempt to carry out a study on copyright-based industries in Tanzania was consulted, even though it had limited value. Internet searches were also employed where necessary to access pertinent information.

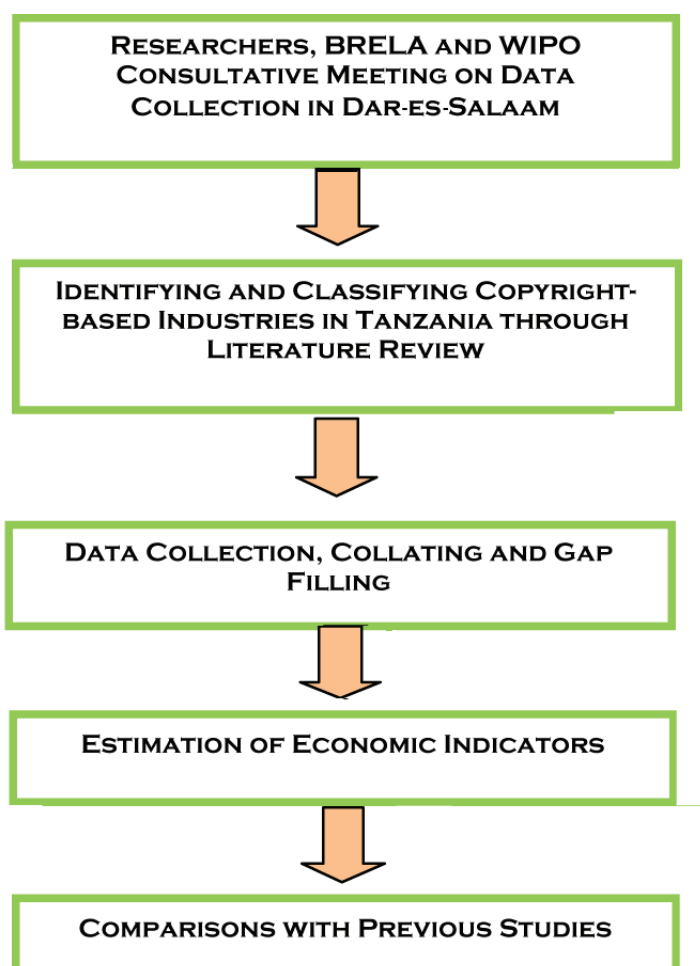
3.3.2 Data Collection Procedures

At the outset a technical meeting was held in Dar-es-Salaam, bringing together consultants from Nairobi and local consultants in Tanzania. The meeting discussed the various reports and documents that the earlier research team had relied on, identifying possible causes of the previous study's failure. One of the main shortcomings of the earlier attempt was the mistake of focusing on primary data rather than secondary data which are published and/or available in government reports and other records. The meeting of consultants in Dar-es-Salaam identified the possible sources of required data and the Tanzania consultants embarked on

conducting a survey with reference to the WIPO Guide. Figure 1 illustrates the sequence of events in data collection, collation and estimation.

This study has relied in good measure on the Kenyan experience. This is relevant and useful, especially because Kenya's and Tanzania's economic structures and levels of development are relatively similar: the two countries have a lot in common because of their proximity and shared borders. Furthermore, at the time of this study, Kenya was the only country in the East African region, and indeed in the African continent, to have successfully completed a study like this; so the Kenya study was very helpful.

Figure 1: Sequence of Events in Data Collection, Collation and Estimation



3.3.3 Data and Survey Challenges

A major difficulty encountered is that the data collection system used by government agencies in Tanzania seems to be fragmented, making it difficult to piece together and collect adequate data. However, efforts were made to circumvent this challenge. Another challenge faced in data collection was the unwillingness of those in authority to divulge information. However, this problem is not unique to Tanzania and can be attributed to the fact that some government officials may not consider such a study to be very important. Some government bureaucrats hold the view that certain data are confidential and therefore should not be released. For example, it was hard to access TRA documents, and TRA staff were relied upon to provide the data.

Additionally, the inadequate availability of data from relevant government sources was due to the absence of a central information collection system, leading to poor record-keeping. According to government officials, most of the data from other regions of Tanzania were not collected or stored in Dar-es-Salaam. This made it difficult to access the regional data.

It was a challenge to obtain data on most wholesalers and retailers, due to the fact that most business people who deal in wholesale and retail pay tax through their Tanzania Identification Number (TIN). In this process, it is not a prerequisite to mention the type of wholesale or retail that is being dealt with – TRA does not prioritize the breakdown of wholesale and retail activities. This made the exercise of identifying data on wholesale and retail problematic.

The list of business activities obtained from TRA only shows names of companies and people paying taxes, without identifying the kind of retail or wholesale. So the relevant companies and individuals in these cases could only be identified if they were already known by the researchers. The researchers had to go through the list to identify these businesses as an attempt to fill in the data gaps.

Neither the Media Council of Tanzania (MCT), nor the TCRA, which acts as a central entity for regulating radio and television, have data on broadcasters' employees or the amount of money they contribute to the government. Thus, to find this information one has to visit about 150 broadcasting organizations. A few of these organizations were identified for primary data collection and the data obtained were extrapolated so as to have a rough estimate of the required data.

The classification coding by the NBS was another challenge. These codes were being changed year after year. Since the data for this study were collected over different years, it was complicated to align the codes with the names of the business activities. Also, NBS and TRA use different codes; these institutions provide different sets of data on similar activities, but they are classified under different codes. This caused serious difficulties and delays in the process of trying to align them.

The absence of adequate and up-to-date data from government offices was a major obstacle. For example, the Ministry of Industry and Trade indicated that it lacked the resources to conduct frequent research, hence the deficiency in the required data. In addition, TRA groups all salaries into a single category: for example, there is a lump-sum amount for the Ministry of Industry and Trade, the Ministry of Communication and Transport, the Permanent Secretary of the Ministry of Industry and Trade, and the National Arts Council, and this sum does not show how much has been collected from how many employees. This made it difficult to achieve a breakdown of the different activities in the copyright industries.

Finally, the lack of data can also be attributed to the fact that most copyright-based businesses operate informally and therefore most of them are not captured within the national statistics system. This is likely to lead to under-reporting of the activities of these businesses, and thus undervaluing of the economic contribution of copyright-based industries.

3.3.4 Dealing with Missing Data

There were several gaps in the data collected from government records. These gaps were filled in by obtaining data from sectoral studies and research reports, which were used to extrapolate, interpolate and project data. Primary data were also collected through the use of questionnaires for the same exercise (see sample questionnaires in Appendix I).

3.4 Data Analysis

3.4.1 Calculation of Indicators of Economic Contribution

The indicators used to establish the contribution of copyright industries to the Tanzanian economy are value added, number of persons employed, employees' incomes, and external trade. This is in line with the WIPO Guide, which has also been adopted in other national studies. The accuracy level of these indicators largely depends on the adequacy of data.

Value added can be obtained in two ways, depending on the approach a study takes. One way of obtaining it is by subtracting intermediate consumption from output. The other way proposes that a value added figure can be obtained when labor costs (including social-security contributions and taxes) are added to the operating margin, and the income from the sale of fixed assets is deducted from this sum. The GDP share of gross value-added (GVA) is calculated to reveal the economic contribution of the copyright-based industries to the domestic economy (WIPO Guide (2003), p. 48).

GDP is, in practice, measured using three approaches: the output or production approach, the expenditure approach, and the income approach. The production approach views GDP as the sum of value added (VA) of all industries, i.e. the difference between output and intermediate consumption. In the expenditure approach, GDP is viewed as the sum of all expenditure categories, including government and household consumption, fixed capital formation, changes in inventories, and exports minus imports. The income approach considers GDP to be the sum of the income due to households (compensation of employees, i.e. wages and salaries, bonuses and other benefits) and corporations (profits or gross operating surpluses) and taxes on production and imports (indirect taxes). All three of these approaches would yield the same estimates of GDP. However, as different sources of data are used, differences between them inevitably arise. Singapore is one of the few countries that compile GDP estimates using all three approaches.³

The output or production approach has been adopted in the Tanzania study. GDP (at basic prices) has been derived by converting the Value Added Tax (VAT) into value-added and then compiling it. VAT for the various copyright-based business activities has been obtained from the TRA. The workforce of the copyright industries has also been calculated and compared with the total workforce. Employee incomes are treated the same way. In order to enable comparison across years, constant prices have been adopted.

3.4.2 Copyright Factors

For selected copyright-based industries, for which only a part of the output is copyright-related, relevant copyright factors need to be derived. A copyright factor is a percentage indicating the proportion of copyright activities in a given industry. This is an expression of the extent of dependence on copyright of the product of the given industry. The copyright factor may be between 0 and 1, depending on the industry. Hence industries that only produce products and works and other protected subject matter, e.g. core and core interdependent copyright-based industries, have a copyright factor of 1, while those having nothing to do with copyright have a factor of 0. However, because of constraints of time and finances, it was not possible to establish the proportion of partial interdependent industries that was copyright-based using the weighting method as stated in the WIPO Guide (2003, paras. 244 and 245). For this reason, both of the interdependent copyright-based industries (i.e. the core interdependent and partial interdependent) have been given a copyright factor of 1, just like the core copyright-based industries.

To derive the copyright factors for the partial copyright-based industries, a survey was carried out in order to establish the amount of money spent on purchases by a sample of households. The respondents were required to state how much the households spent for the whole year and also what they spent on partial copyright industries (see sample questionnaires in Appendix I). A proportion was then calculated, an average of which was used to compute the copyright factors used for partial copyright industries, as indicated in Table 4. Where data were inadequate to calculate a reliable copyright factor, the factor used in the Kenyan study was adopted.

Table 4: Copyright Factors for Partial Copyright Industries in Tanzania

Partial Copyright Industries	Copyright Factor (%)
Apparel	0.69
Footwear	0.67
Textiles	0.49
Jewellery and coins	11.92
Household goods, china and glass	4.68
Furniture, fittings and furnishings	19.74
Wholesale and retail of partial copyright industries	4.68
Architecture, engineering, surveying*	9.15

*Note: Kenya's study factor used due to inadequate data to compute a unique factor for Tanzania (see WIPO Report Series 4, 2011).

³ Statistics Singapore Newsletter (July 2000). "National Accounts: Measuring Gross Domestic Product (GDP)." Singapore Department of Statistics, Singapore.

For the NDSIs, equation (1), proposed by Chow and adopted at the Experts Meeting in Singapore in October 2008, was applied to obtain the copyright factor:

$$NDSI \text{ Copyright Factor} = \left(\frac{\text{Value Added for Core, Interdependent and Partial Industries}}{\text{Non - Distribution GDP}} \right) \quad (1)$$

where the non-distribution GDP is given by GDP minus (value-added of general transportation plus general wholesale and retail plus telephony and Internet) plus value-added of distribution industries in the core, interdependent and partial sub-sectors.

The NDSI factor was worked out for each year from 2007 to 2010 so that each year had its own unique NDSI factor. The factors ranged from 2.98 to 4.47 (Table 5).

Table 5: Copyright Factors for Non-Dedicated Support Industries in Tanzania

Year	2007	2008	2009	2010
NDSI factor (%)	4.20	4.47	4.33	2.98

4. Economic Contribution of Copyright-Based Industries in Tanzania

4.1 General Performance of Copyright-Based Industries

Tanzania's copyright industries contribute considerably to the national economy, as is shown by value added, employment, and employee incomes. The total value added of copyright-based industries in 2007-2010 ranged from TZS 391.635 billion to TZS 680.990 billion, which represented 3.0 and 4.6% of the total GDP of Tanzania, with the year 2009 recording the highest contribution.⁴

In terms of income for employees, the copyright-based industries made a total of TZS 33.175 billion in 2007 and TZS 80.474 billion in 2009. This equates to a proportion of between 2.4% and 5.0% of the total national economic value.

Copyright-based industries employed between 28,202 and 44,331 people over the period 2007 to 2010, which depicts a steady increase. This made up between 4.5% and 5.7% of the total national workforce (government and private sector employees) over this period.

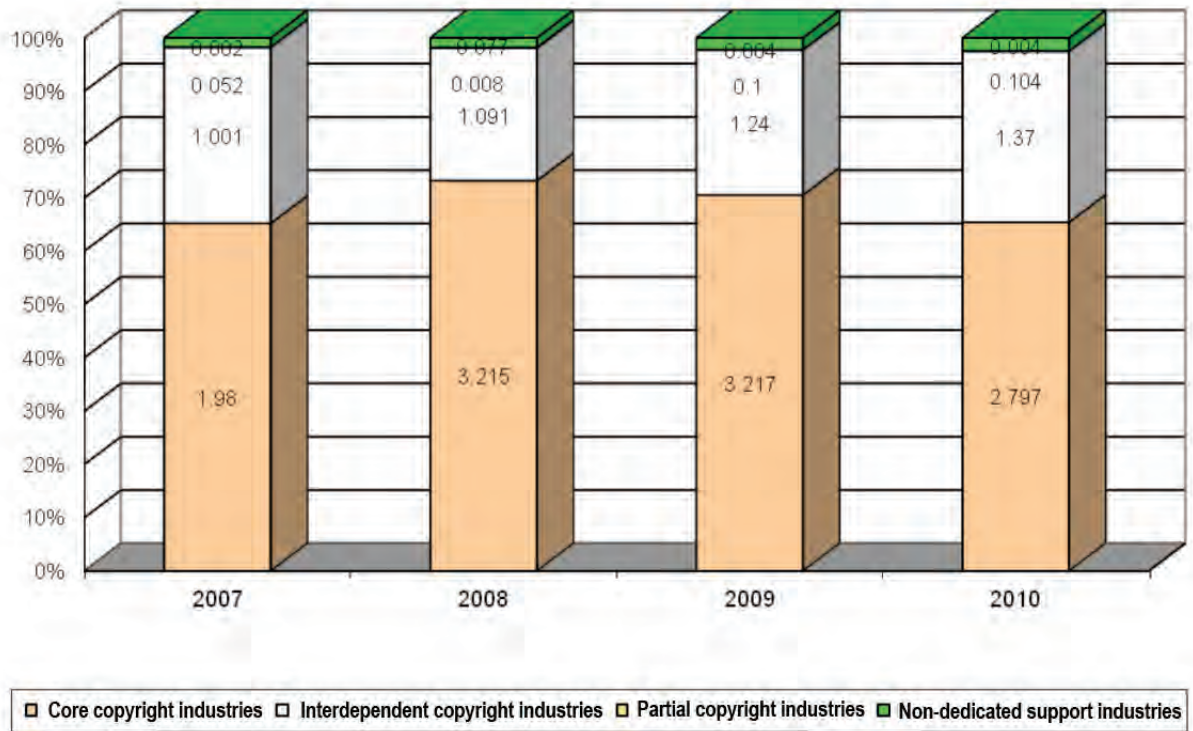
Table 6: Economic Contribution of Copyright Industries in Tanzania, 2007-2010

Year	Value Added		Employee Income		Employee Numbers	
	TZS	% contribution to GDP	TZS	% contribution to national income	Head/number	% contribution to national employment
2007	391,635,535,345	3.043	33,175,394,387	2.373	28,202	4.464
2008	606,196,766,113	4.392	55,779,708,859	3.724	36,915	5.454
2009	676,458,324,498	4.561	80,474,387,573	5.000	40,928	5.633
2010	680,989,952,456	4.275	77,041,444,407	4.457	44,331	5.674

Figure 2 illustrates the contributions made by the various copyright-based industries in Tanzania. In the performance indicators considered in this study – value added, employee income and employment – the core copyright-based industries outperformed the other three categories of copyright-based industries, followed by the interdependent copyright-based industries. With respect to the value added contributed by the various copyright-based industries to the country's total value added, Figure 2 shows that, between 2007 and 2010, the core industries consistently made the highest contribution of the copyright industries (50-70%), followed by the interdependent copyright industries (30-35%).

⁴ All years refer to financial years, e.g., 2007 refers to the 2006-2007 financial year.

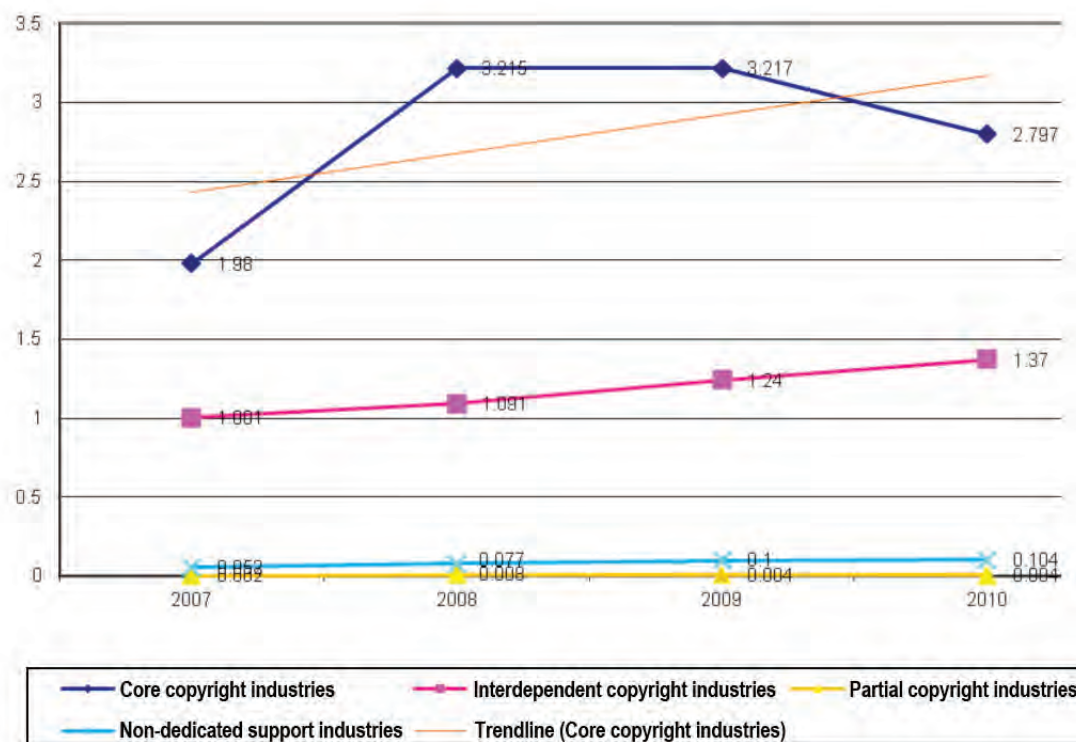
Figure 2: Contribution in Terms of Value Added to the Tanzania National Economy by Copyright-Based Industries, 2007-2010 (%)



Generally speaking, the contribution to the national economy of the various copyright industries in Tanzania has shown a steady rise in the past few years; even though the contribution of the core industries has shown some tapering, the movement (as shown by the trend line) is upwards (Figure 3).



Figure 3: Trends in the Contribution of Copyright-Based Industries to the Tanzania National Economy in Terms of Value Added, 2007-2010 (%)

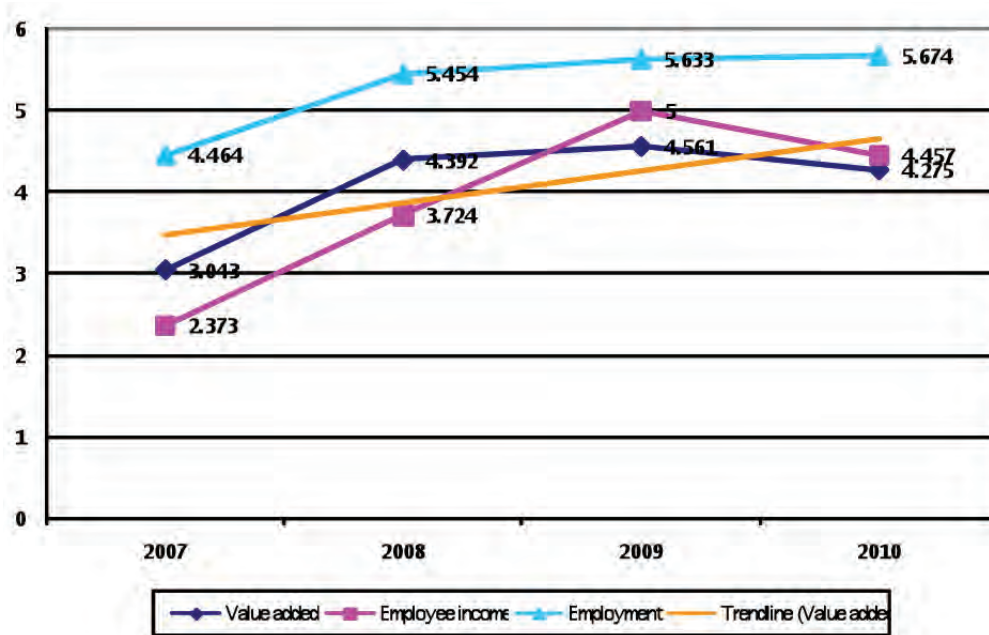


The core and interdependent copyright-based industries, whose activities are assumed to be 100% copyright-dependent, between them contribute more than 90% of value added by the copyright industries, or between 3.0% and 4.5% of the national economy. This demonstrates strongly that, even without including the contributions of partial and non-dedicated copyright-based industries, whose combined contribution is low (less than 0.2%), the level of contribution of copyright-based industries in Tanzania is significant. Of course, this assertion assumes that the copyright factors used for apportionment reasonably represent their share contributions.

Overall, the copyright-based industries in Tanzania have shown considerable growth (Figure 4) in the last few years, even though it is unlikely that all the relevant data can be obtained, so their full contribution may not be known. Needless to say, Tanzania’s copyright industries are probably contributing much more to the national economy, in terms of GDP, income and employment, than is revealed by the available data. However, these results are consistent with those of a similar study for Kenya, where core copyright industries posted higher contributions than the rest of the copyright industries (in all the economic indicators).⁵

⁵ Nyariki, D., Wasonga, O., Otieno, C., Ogadho, E., Ikutwa, C. and Kithinji, J. (2011). The economic contribution of copyright-based industries in Kenya, in WIPO, National studies on assessing the economic contribution of the copyright-based industries. WIPO Publication No. 1024e, WIPO, Geneva.

Figure 4: Trends in the Overall Contribution of Copyright-Based Industries to Value Added, Income and Employment in Tanzania, 2007-2010 (%)



For a more in-depth analysis of the contribution of copyright industries in Tanzania, we present the results of 2009, which provided the latest consistent data. We ignore the 2010 data, because they were derived from government projections. From Table 7, the total contribution by value added for copyright industries was TZS 676.458 billion, translating to approximately 4.6% of the total GDP for that year of TZS 14.828 trillion (at constant prices). The core copyright industries contributed TZS 477.083 billion (3.2%), the interdependent copyright industries TZS 183.9 billion (1.2%), the partial copyright industries TZS 602.577 million (0.004%), and the non-dedicated copyright industries TZS 14.871 billion (0.1%). From this it can be observed that core and interdependent copyright industries contributed the bulk (4.5%) of the total contribution from copyright industries.

Table 7: Economic Contribution of Copyright-Based Industries in Tanzania in 2009 (TZS, Numbers, %)

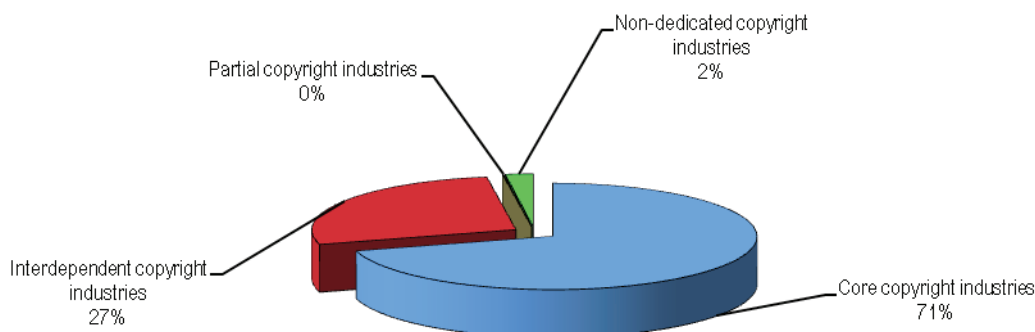
Industries	Gross Domestic Product (GDP)		Employee Incomes		Employee Numbers	
	Million TZS	%	Million TZS	%	People	%
Core copyright industries	477,083,298,840	3.217	28,272,365,169	1.757	18,616	2.560
Interdependent copyright industries	183,900,961,799	1.240	48,294,231,725	3.000	15,589	2.144
Partial copyright industries	602,576,873	0.004	65,035,416	0.004	2,077	0.290
Non-dedicated support industries	14,871,486,986	0.100	3,842,755,263	0.239	4,646	0.639
TOTAL COPYRIGHT INDUSTRIES	676,458,324,498	4.561	80,474,387,573	5.000	40,928	5.633
Total national economy	14,828,345,000,000	100	1,609,000,000,000	100	727,202	100

In terms of employee compensation, the copyright industries combined contributed a total of TZS 80.474 billion, or a proportion of 5.0% of the national economic value of TZS 1.609 trillion. With respect to individual copyright industries, interdependent copyright industries contributed the most, at about TZS 48.294 billion (3%), followed by core copyright industries which contributed about TZS 28.272 billion (1.8%).

With respect to employee numbers, the copyright-based industries combined employed a total of 40,928 people, which was about 5.6% of the total national workforce of 727,202 people. Employee numbers in core copyright industries were 18,616 (2.6%), followed by interdependent copyright industries with 15,589 people (2.1%).

In 2009, as a percentage of the contribution to the national economy from the copyright-based industries, the core industries made the largest contribution (71%) in terms of GDP, followed by the interdependent industries (27%). The partial and non-dedicated copyright-based industries made a contribution of just 2% (Figure 5).

Figure 5: Share Contributions within Copyright-Based Industries in Tanzania in Terms of Value Added (GDP) in 2009



The core copyright-based industries again contributed the highest share (46%) of the total copyright-based employment, compared with the contribution of interdependent industries (38%) (Figure 6). The partial and non-dedicated copyright-based industries in this respect also contributed 11% and 5% respectively.

Figure 6: Share Contributions within Copyright-Based Industries in Tanzania in Terms of Employment in 2009

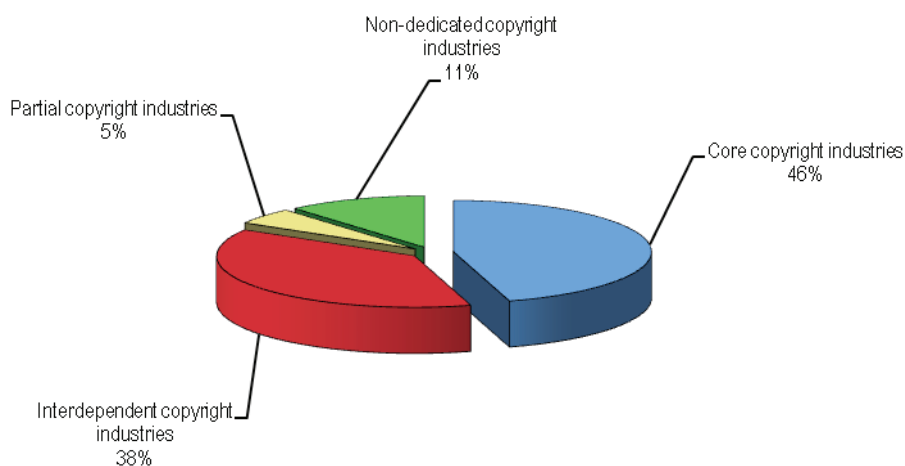
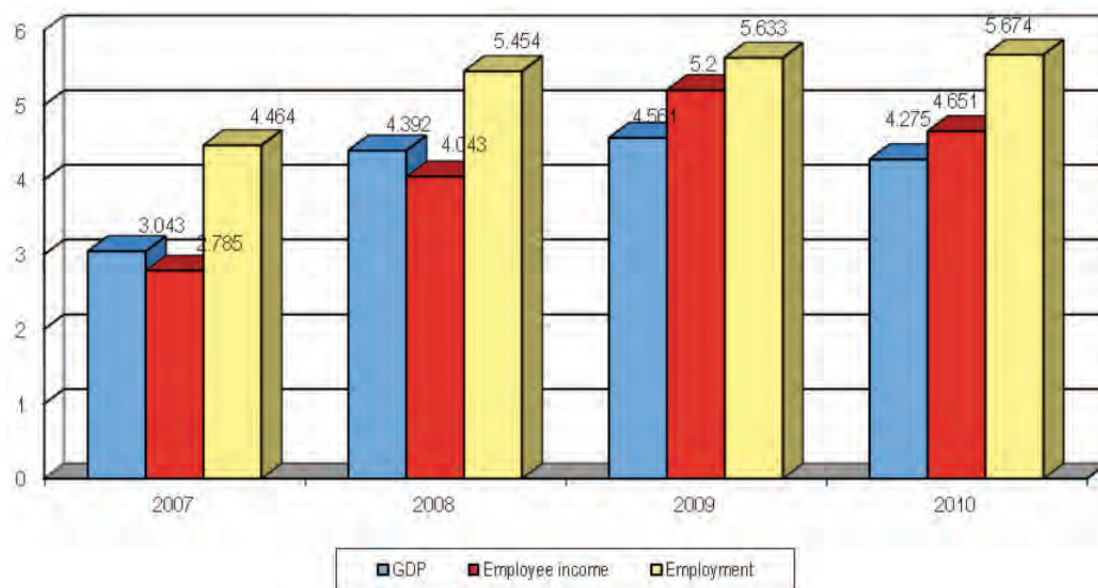


Figure 7 further illustrates the overall economic contribution of copyright industries to the Tanzanian economy between 2007 and 2010. As can be observed, the year 2009 recorded the highest contribution in terms of GDP and employment, followed by 2008, while the year 2007 recorded the lowest in both. The year 2009 again recorded the highest in terms of employee income, followed by the year 2010, while 2007 recorded the lowest levels in this indicator.

Figure 7: Economic Contribution of Copyright-Based Industries in Tanzania, 2007-2010 (%)



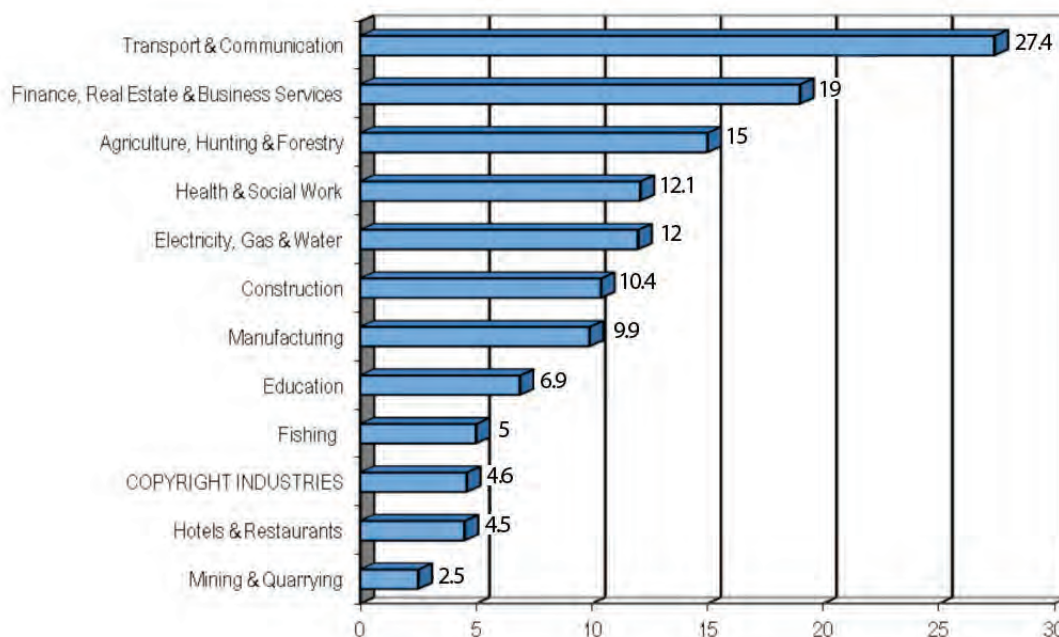
4.2 Economic Contribution of Copyright-Based Industries Compared with Other Sectors

The contribution of copyright-based industries in terms of GDP compared with other selected sectors in Tanzania is shown in Table 8. Figure 8 graphically illustrates the performances of the various economic and social sectors in the year 2009. The table shows that the country depended heavily on transport and communication (24.5-30.4%); finance, real estate and business services (17.7-19.4%); and agriculture, hunting and forestry (13.9-15.2%) over the period 2007-2010. In 2007, the hotels and restaurants sector performed better than the copyright industries. However, these two sectors performed equally in 2008. In 2009 copyright industries performed better than the mining and quarrying and hotels and restaurants sectors, and in 2010 they exceeded the performance of the mining and quarrying sector, and equalled the performance of the hotels and restaurants sector. In fact, the core copyright industries alone contributed more than the mining and quarrying sector in 2009 and 2010 (3.2% and 2.8% respectively). This underscores the importance of the copyright-based industries to the economy of Tanzania (see Table 8 and Figure 8).

Table 8: Share of GDP (%) by Economic Activity (including Copyright) in Tanzania, 2007-2010

Sector	2007	2008	2009	2010
Mining and Quarrying	15.6	10.7	2.5	2.6
Hotels and Restaurants	4.3	4.4	4.5	4.3
COPYRIGHT INDUSTRIES	3.0	4.4	4.6	4.3
Fishing	5.0	4.5	5.0	5.8
Education	5.0	5.5	6.9	6.6
Manufacturing	8.5	8.7	9.9	9.7
Construction	9.3	9.5	10.4	9.7
Electricity, Gas and Water	5.3	18.5	12.0	11.3
Health and Social Work	12.2	12.0	12.1	12.1
Agriculture, Hunting and Forestry	13.9	15.1	15.0	15.2
Finance, Real Estate and Business Services	19.4	17.7	19.0	18.9
Transport and Communication	24.5	26.6	27.4	30.4

Figure 8: Contribution of Copyright-Based Industries to Tanzania's Economy Compared with Other Sectors on the Basis of Value Added in 2009 (%)



On the basis of employment, the copyright-based industries in 2009 collectively employed 727,202 persons, or 5.6% of the national workforce (including government and private sectors) (Figure 9). Employee numbers for copyright-based industries were higher than those in health and social work; finance, real estate and business services; construction; transport and communication; mining and quarrying; and the electricity, gas and water sectors. The employment figures were also higher than those of the construction; transport and communication; mining and quarrying; and electricity, gas and water sectors combined.

Figure 9: The Contribution of Copyright-Based Industries to Tanzania's Economy Compared with Other Sectors Based on Employment in 2009 (%)

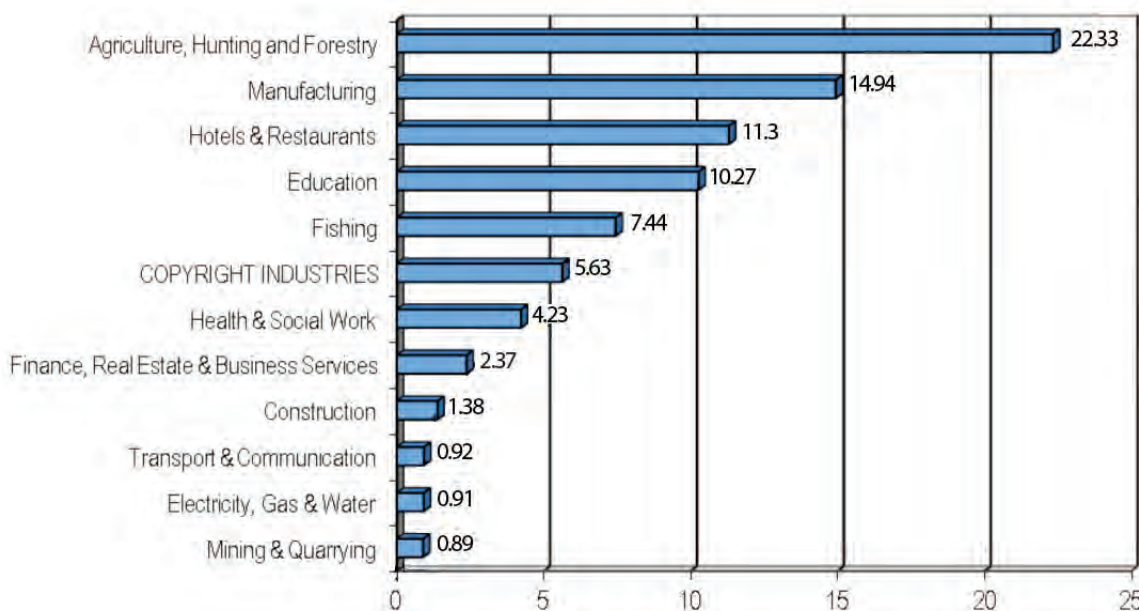


Figure 10 illustrates the productivities of the core, interdependent and total copyright-based industries alongside other sectors that contributed to Tanzania’s national economy in 2009.⁶ The core copyright-based industries exhibited impressive productivity, second only to the agricultural, hunting and forestry sector. The productivity index of the core copyright-based industries, calculated as a fraction of added value in million TZS shillings per employee compared with the national productivity as a reference, is suspected to be an overestimate, because employee numbers in the creative industries in general are difficult to capture and are normally under-reported, which would lead to high productivity values. However, the overall copyright-based industries only outperformed two main sectors – fishing, and hotels and restaurants – in terms of labor productivity.

Figure 10: Productivity of Copyright-Based Industries in Tanzania (Total Added Value/Employee) Compared with Other Sectors in 2009 (with National Productivity as the Reference)



4.3 Economic Contribution of Core Copyright-Based Industries

As shown in Table 9, core copyright-based industries collectively contributed between TZS 255.099 billion and TZS 477.083 billion of value added in 2007-2010. This translates to about 2.0-3.2% of the total national added value over the same period (see also the illustration in Figure 10).

Regarding contribution to employee income, the core copyright-based industries generated between TZS 14.969 billion and 28.272 billion, or about 1.1-1.8% of the total national incomes generated for employees between 2007 and 2010. With respect to employment, the core copyright-based industries collectively employed between 12,247 and 20,079 persons, or about 1.9-3.0% of total national employees (Table 9, Figure 11).

⁶ It is noted that considerable extrapolation of data is done between ministries/sectors, and this is the reason many sectors exhibit the same labor productivity values.

Table 9: Economic Contribution of Core Copyright-Based Industries in Tanzania, 2007-2010

Year	Value Added		Employee Income		Employee Numbers	
	TZS	% contribution to GDP	TZS	% contribution to national income	Head/Number	% contribution to national employment
2007	255,098,812,610	1.980	14,968,966,326	1.071	12,247	1.939
2008	443,756,050,480	3.215	27,387,048,990	1.829	19,991	2.953
2009	477,083,298,840	3.217	28,272,365,169	1.757	18,616	2.560
2010	445,504,374,830	2.797	20,742,872,602	1.200	20,079	2.570

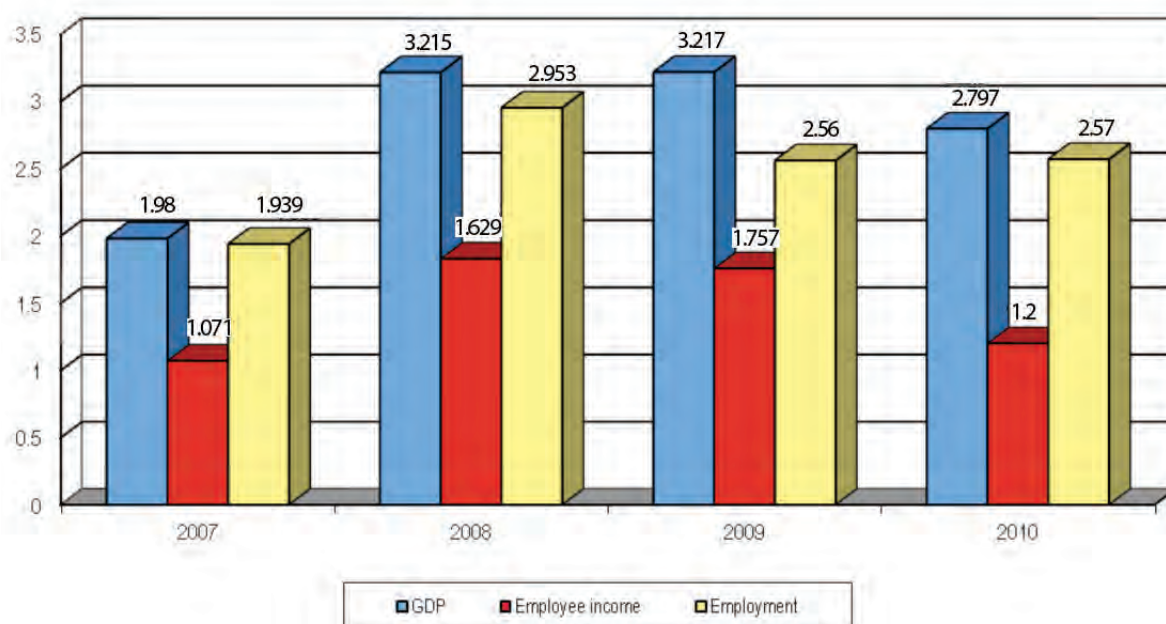
As indicated in Figure 11, the three indicators – GDP, employee compensation and employment – depicted the same pattern in terms of contribution to the national economy over the period of study. In all four years in the study, the core copyright industries made the highest proportional contribution to GDP, followed by employment. The year 2009 recorded the highest contribution in terms of GDP, followed by 2008, while 2008 was the best year for core copyright industry employment. The year 2007 was the worst performer in all the indicators.

The core copyright-based industries consistently made a lower contribution to employment and employee incomes than to value added. This contrasts with the results of some similar studies, such as that for Hungary in 2002, which showed that the core copyright industries made a higher contribution to both employment numbers and incomes for employees than to value added.⁷ The pattern of results for Tanzania is closely associated with that for Kenya, which showed the contribution to employee numbers to be higher than the contribution to employee incomes, but lower than value added.⁸ In this respect, the Tanzanian scenario compares well with that of Kenya and those of the more industrialized countries such as the United States of America. It is argued that the Hungarian situation is a reflection of the fact that the core copyright-based industries use a larger labor force than the average industry. It is further argued that this apparent loss in productivity may be due to the lower level of mechanization and automation in the core copyright-based industries compared with the level in industrialized countries, and the slow establishment of new, labor-saving technologies because of a lack of finance. If the Tanzanian outcome is not attributable to data problems, the differences observed may be due to the lower volumes involved in the Tanzanian case, and may also be an indication that the copyright-based industries are not very well established. Furthermore, the number of people employed in the copyright-based industries is likely larger than that reported in government statistics.

⁷ Penyigey, K. and Munkácsi, P. (2005). "The Economic Contribution of Copyright-Based Industries in Hungary." In: National Studies on Assessing the Economic Contribution, WIPO.

⁸ Nyariki, D., Wasonga, O., Otieno, C., Ogadho, E., Ikutwa, C. and Kithinji, J. (2011). The economic contribution of copyright-based industries in Kenya, in WIPO, National studies on assessing the economic contribution of the copyright-based industries. WIPO Publication No. 1024e, WIPO, Geneva.

Figure 11: Economic Contribution of Core Copyright-Based Industries in Tanzania, 2007-2010 (%)



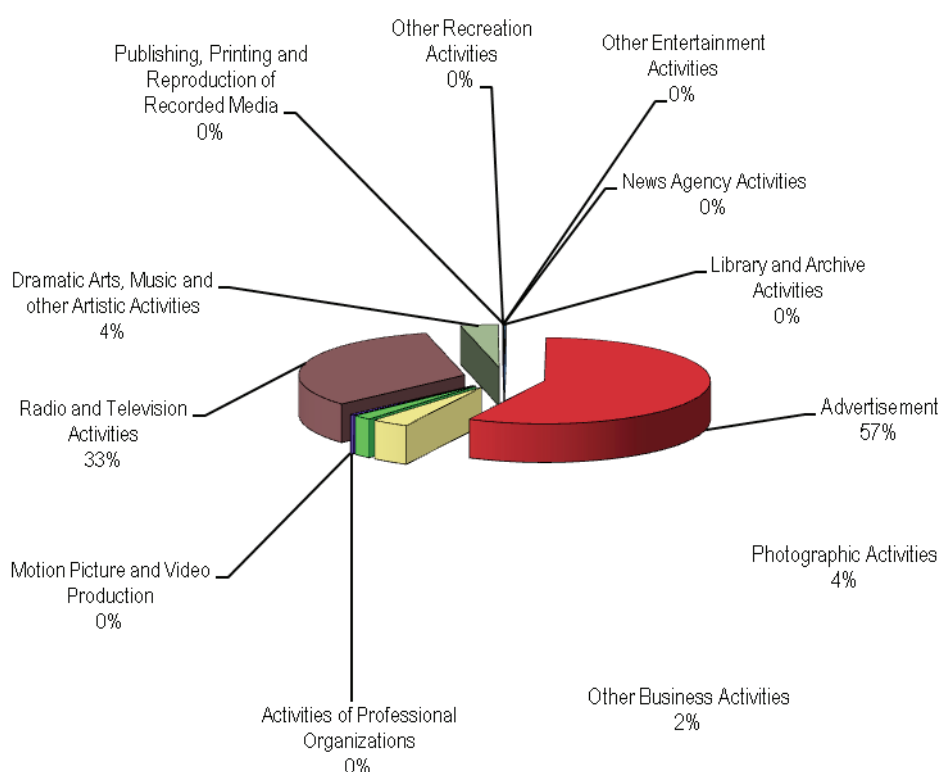
Focusing on 2009 (Table 10, Figure 12), advertising contributed a total of TZS 273.464 billion of value added, and was the highest contributor to value added of all the core copyright industries in Tanzania in that year. This amounts to approximately 57% of the total value added of TZS 477.083 billion. Radio and television was second, contributing a total of TZS 157.4193 billion, or about 33%. The smallest contributor in terms of value added in 2009 was motion picture and video production with TZS 10.965 million (0.002%).

Table 10: Value Added by Sub-Sectors of Core Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Publishing, Printing and Reproduction of Recorded Media	139,785,810	273,987,960	718,034,190	746,375,900
Advertising	107,055,889,720	182,626,295,350	273,463,744,120	126,756,389,580
Photographic Activities	2,503,624,420	5,717,871,320	17,238,140,700	4,573,344,560
Other Business Activities	42,370,061,550	90,939,498,020	8,570,627,760	79,948,311,390
Activities of Professional Organizations	354,444,580	694,716,930	1,820,537,040	1,892,448,250
Motion Picture and Video Production	2,134,860	4,184,360	10,965,310	11,398,440
Radio and Television Activities	99,199,180,250	156,691,006,890	157,419,295,720	213,029,395,520
Dramatic Arts, Music and other Artistic Activities	3,376,939,630	6,618,854,630	17,345,006,900	18,030,134,670
Other Entertainment Activities	5,518,560	10,816,460	28,345,020	29,464,650
News Agency Activities	12,030,250	23,579,480	61,791,090	64,231,840
Library and Archive Activities	16,827,720	32,982,590	86,432,360	89,846,440
Other Recreation Activities	62,375,260	122,256,490	320,378,630	333,033,590
Total Value Added	255,098,812,610	443,756,050,480	477,083,298,840	445,504,374,830

Source: Statistical Abstract (2009).

Figure 12: Contribution of Sub-Sectors of Core Copyright-Based Industries to Value Added in Tanzania in 2009 (%)



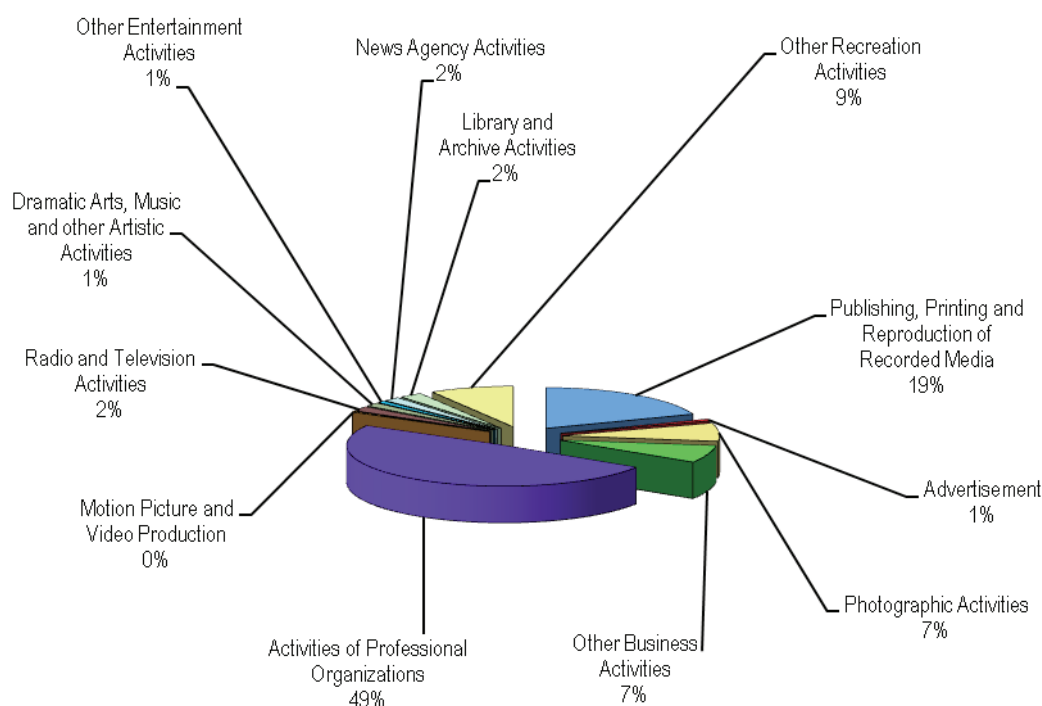
Regarding employment, activities of professional organizations were the highest contributor to the core copyright industries, employing a total of 9,120 people out of a total of 18,616 in 2009. This is approximately 49% of the total number of employees in the core copyright industries. The next highest employee numbers were in publishing, printing and reproduction of recorded media, in which there were 3,597 employees (19%). Motion picture and video production contributed the least, employing a total of 55 people, translating to 0.30% (Table 11, Figure 13).

Table 11: Employee Numbers in Sub-Sectors of Core Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Publishing, Printing and Reproduction of Recorded Media	2,355	3,843	3,597	3,880
Advertising	86	141	132	142
Photographic Activities	870	1,420	1,329	1,434
Other Business Activities	836	1,368	1,280	1,380
Activities of Professional Organizations	5,971	9,744	9,120	9,838
Motion Picture and Video Production	36	59	55	59
Radio and Television Activities	226	369	345	372
Dramatic Arts, Music and other Artistic Activities	237	386	268	289
Other Entertainment Activities	93	152	142	153
News Agency Activities	202	331	310	334
Library and Archive Activities	284	463	433	467
Other Recreation Activities	1,051	1,715	1,605	1,731
Total Employee Numbers	12,247	19,991	18,616	20,079

Source: Business Survey (2008); Statistical Abstract (2009).

Figure 13: Contribution of Sub-Sectors of Core Copyright-Based Industries to Employment in Tanzania in 2009 (%)



In terms of employee income in 2009, advertising topped the other core copyright industries, earning employees TZS 27.346 billion out of a total of TZS 28.272 billion. This is 97% of the total wages and salaries in the core copyright industries in 2009. Advertising was followed by “other business activities” which contributed TZS 857.063 million, providing a share of 3% (Table 12).

Table 12: Employee Income from Sub-Sectors of Core Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Publishing, Printing and Reproduction of Recorded Media	5,514,431	6,373,354	14,413,507	15,140,508
Advertising	10,705,588,972	18,262,619,535	27,346,374,412	12,675,638,958
Photographic Activities	2,037,461	2,354,902	5,325,423	5,593,824
Other Business Activities	4,237,006,155	9,093,949,802	857,062,776	7,994,831,139
Activities of Professional Organizations	13,981,674	16,160,049	36,544,661	38,386,512
Motion Picture and Video Production	84,319	97,456	220,390	231,490
Radio and Television Activities	528,912	611,318	1,382,446	1,452,121
Dramatic Arts, Music and other Artistic Activities	410,865	474,879	1,073,900	1,128,025
Other Entertainment Activities	217,697	251,615	569,007	597,685
News Agency Activities	475,254	549,300	1,242,198	1,304,805
Library and Archive Activities	659,996	762,825	1,725,070	1,812,014
Other Recreation Activities	2,460,590	2,843,955	6,431,379	6,755,521
Total Employee Income	14,968,966,326	27,387,048,990	28,272,365,169	20,742,872,602

Source: Statistical Abstract (2009).

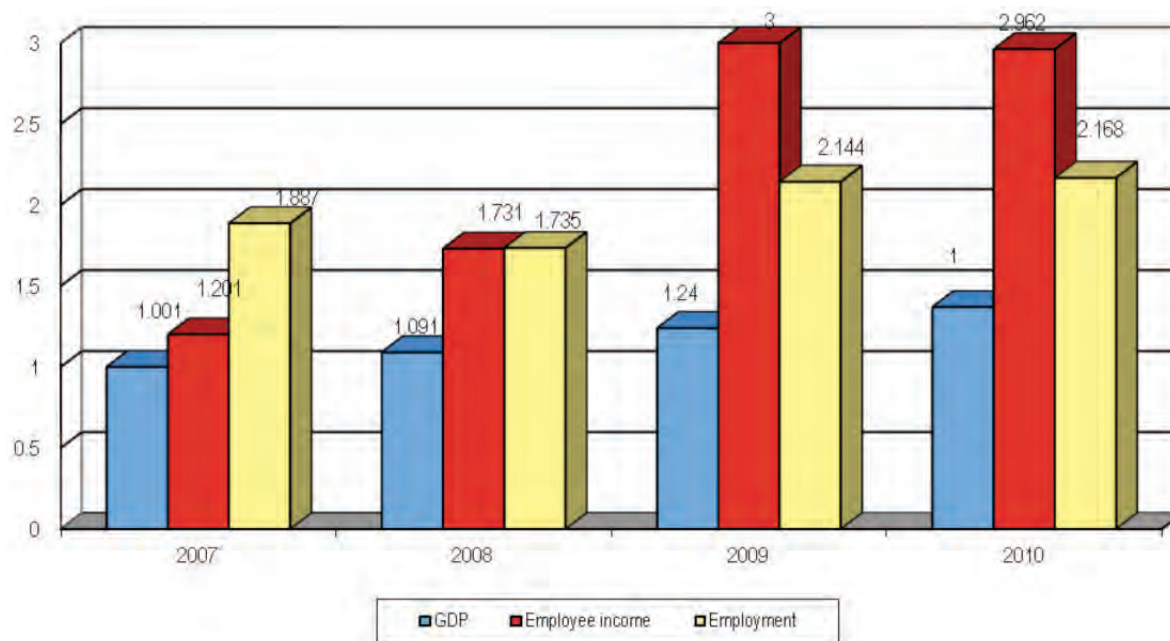
4.4 Economic Contribution of Interdependent Copyright-Based Industries

Interdependent copyright industries as a group contributed TZS 129.647 billion and TZS 218.259 billion of value added over the 2007-2010 period. This translated to about 1-1.37% of the total national value added over the same period. With respect to the contribution to employee income, the interdependent copyright industries generated TZS 16.793 billion and 59.195 billion, or about 1.2-3.0% of the total national incomes generated for employees between 2007 and 2010. With respect to employment, the interdependent copyright industries together employed 11,920 and 16,931 persons, or about 1.9-2.2% of all employees nationally (Table 13, Figure 14).

Table 13: Economic Contribution of Interdependent Copyright-Based Industries in Tanzania, 2007-2010

Year	Value Added		Employee Income		Employee Numbers	
	TZS	% contribution to GDP	TZS	% contribution to national income	Head/Number	% contribution to national employment
2007	129,647,192,889	1.001	16,792,895,234	1.201	11,920	1.887
2008	150,640,635,713	1.091	25,917,414,455	1.731	11,746	1.735
2009	183,900,961,799	1.240	48,294,231,725	3.000	15,589	2.144
2010	218,258,758,647	1.370	51,194,690,617	2.962	16,931	2.168

Figure 14: Economic Contribution of Interdependent Copyright-Based Industries in Tanzania, 2007-2010 (%)

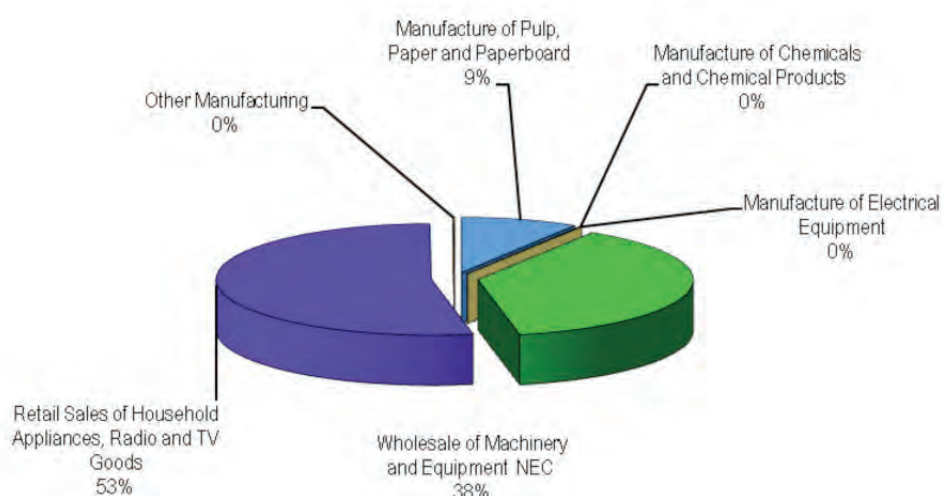


Considering the breakdown of the interdependent copyright industries and focusing on the year 2009, “retail sales of household appliances, radio and TV goods” remained the highest contributor to value added, providing TZS 97.417 billion or 53% of the total value added, followed by the wholesale of machinery and equipment n.e.c., which contributed about TZS 69.843 billion or 38% of the total value added by interdependent industries that year. The manufacture of electrical equipment contributed the least during this year, recording only 0.005% (Table 14, Figure 15).

Table 14: Value Added by Sub-Sectors of Interdependent Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Manufacture of Pulp, Paper and Paperboard	7,436,736,069	18,068,938,081	16,241,561,262	20,426,181,452
Manufacture of Chemicals and Chemical Products	54,632,429	138,843,185	159,347,579	167,314,958
Manufacture of Electrical Equipment	13,617,804	16,138,692	10,781,638	11,320,720
Wholesale of Machinery and Equipment n.e.c.	56,789,299,219	61,849,204,269	69,843,414,806	80,430,183,665
Retail Sales of Household Appliances, Radio and TV Goods	65,350,706,166	70,561,917,337	97,417,317,210	116,983,791,583
Other Manufacturing	2,201,202	5,594,149	228,539,304	239,966,269
Total Added Value	129,647,192,889	150,640,635,713	183,900,961,799	218,258,758,647

Source: Statistical Abstract (2009).

Figure 15: Contribution of Sub-Sectors of Interdependent Copyright-Based Industries to Value Added in Tanzania in 2009 (%)

As shown in Table 15, employee income for the interdependent copyright industries from “other manufacturing” in 2009 was the highest contributor, with TZS 30.995 billion (or 64% of the total employee income), followed by the manufacture of chemical and chemical products, which contributed about TZS 11.283 billion (or 23%). In that particular year, the wholesale of machinery and equipment was the lowest contributor, recording only TZS 764.622 million (or about 2%).

Table 15: Employee Incomes from Interdependent Copyright-Based Industries in Tanzania, 2007-2010

Activities	2007	2008	2009	2010
Manufacture of Pulp, Paper and Paperboard	6,958,913,000	8,065,789,000	3,381,754,000	3,550,842,000
Manufacture of Chemicals and Chemical Products	4,667,698,000	9,371,197,000	11,282,851,000	11,846,994,000
Manufacture of Electrical Equipment	1,922,184,000	2,994,241,000	803,621,000	1,148,602,000
Wholesale of Machinery and Equipment n.e.c.	521,568,000	572,310,000	764,622,000	802,853,000
Retail Sales of Household Appliances, Radio and TV Goods	600,198,234	652,931,455	1,066,491,725	1,167,730,617
Other Manufacturing	2,122,334,000	4,260,946,000	30,994,892,000	32,677,669,000
Total Employee Incomes	16,792,895,234	25,917,414,455	48,294,231,725	51,194,690,617

Source: Statistical Abstract (2009).

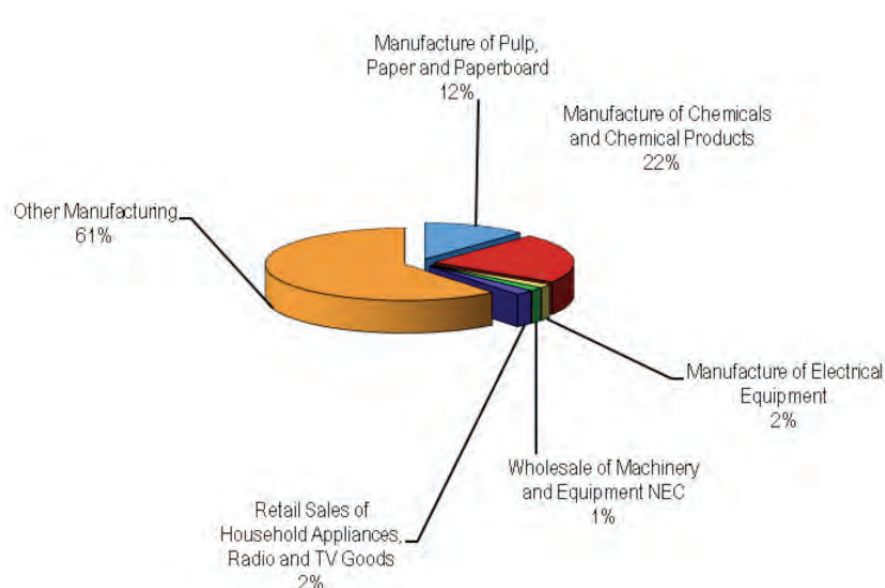
With respect to employment, “other manufacturing” was the highest employer in the interdependent copyright industries in 2009, contributing 9,475 people out of the total 15,589 employed that year, or 60%. The manufacture of chemicals and chemical products was second, with 3,449 employees, or about 22%, while the lowest contributor in that year was the wholesale of machinery and equipment n.e.c., recording only 234 employees (2%) (Table 16, Figure 16).

Table 16: Employee Numbers in Interdependent Copyright-Based Industries in Tanzania, 2007-2010

Activities	2007	2008	2009	2010
Manufacture of Pulp, Paper and Paperboard	4,281	4,133	1,859	1,955
Manufacture of Chemicals and Chemical Products	3,626	3,997	3,449	3,724
Manufacture of Electrical Equipment	1,493	1,277	246	361
Wholesale of Machinery and Equipment n.e.c.	405	244	234	252
Retail Sales of Household Appliances, Radio and TV Goods	466	278	326	367
Other Manufacturing	1,649	1,817	9,475	10,272
Total Employee Numbers	11,920	11,746	15,589	16,931

Source: Statistical Abstract (2009).

Figure 16: Contribution of Sub-Sectors of Interdependent Copyright-Based Industries to Employment in Tanzania in 2009 (%)



4.5 Economic Contribution of Partial Copyright-Based Industries

In the period from 2007-2010, the joint contribution of partial copyright industries ranged from TZS 253.061 million to TZS 1.129 billion of value added, or about 0.002-0.008% of the total national value added over the same period. The year 2008 registered the highest value added in partial copyright industries, while 2007 registered the lowest value.

Regarding the contribution to employee income, the partial copyright industries generated TZS 3.275 billion to TZS 5.775 billion, or about 0.2-0.4% of the total national incomes generated for employees between 2007 and 2010. The industries as a group employed between 1,339 and 2,077 persons, or about 0.2-0.3% of total national employees (Table 17, Figure 17).

Table 17: Economic Contribution of Partial Copyright-Based Industries in Tanzania, 2007-2010

Year	Value Added		Employee Income		Employee Numbers	
	TZS	% contribution to GDP	TZS	% contribution to national income	Head/Number	% contribution to national employment
2007	253,061,249	0.002	5,775,241,007	0.413	2,077	0.329
2008	1,128,952,495	0.008	4,861,169,981	0.325	2,081	0.307
2009	602,576,873	0.004	3,275,595,957	0.204	2,077	0.290
2010	580,788,572	0.004	3,429,912,237	0.198	1,339	0.171

Figure 17: Economic Contribution of Partial Copyright-Based Industries in Tanzania, 2007-2010 (%)

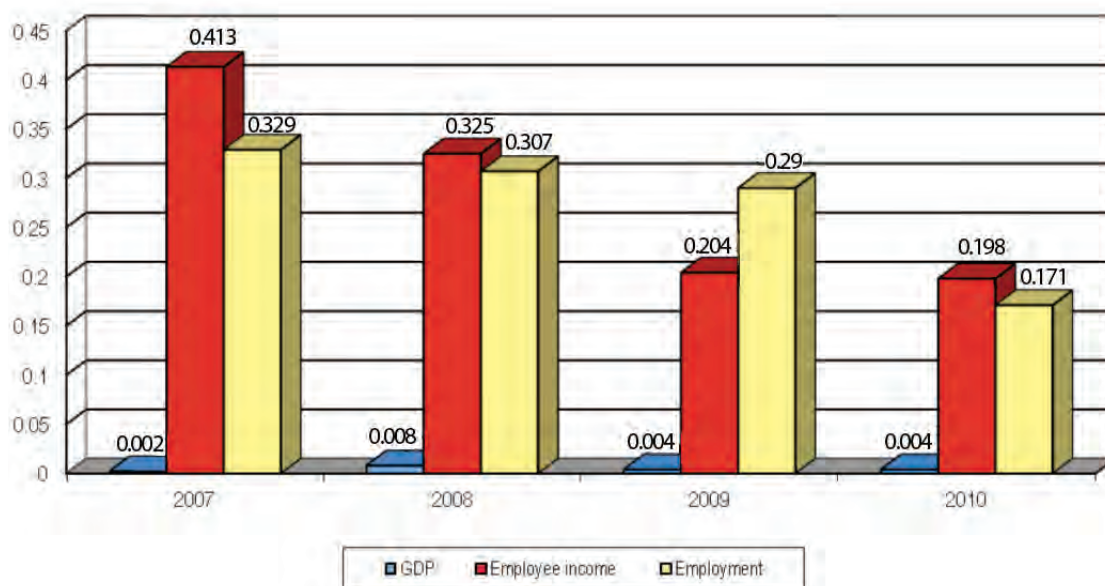


Table 18 shows that, when partial copyright industries are categorized, engineering, architectural and technical services contributed the largest value added between 2007 and 2010. Value added for these services rose between 2007 and 2008 before dropping between 2009 and 2010.

In the year 2009, engineering, architectural and technical services contributed about 96% of the total value added attributed to partial copyright industries. The next largest category was the manufacture of jewellery and related articles, which recorded about 2%. The lowest contributor during that year was washing and dry cleaning of textiles and fur products.

Table 18: Value Added by Partial Copyright-Based Industries in Tanzania, 2007-2010

Activities*	2007	2008	2009	2010
Manufacture of Textiles (0.49)	721,141	829,006	394,322	414,039
Manufacture of Wearing Apparel, Dressing and Drying of Leather (0.67)	3,901	7,797	41,435	3,563
Manufacture of Luggage, Handbags, Saddlers and Footwear (0.67)	127,606	126,466	40,234	42,246
Manufacture of Leather and Related Products (0.67)	31,954	15,973	10,841	10,171
Manufacture of Rubber and Plastic Products (0.67)	187,986	295,311	876,804	920,644
Manufacture of Glass Products (0.39)	438,186	688,356	2,043,787	2,145,977
Retail Sale of Glass and Hardware (0.39)	2,581	3,830	2,446	22,456
Manufacture of Wood and Cork Products Except Furniture (41.00)	5,415,002	5,546,813	2,420,011	254,101
Manufacture of Furniture (19.74)	4,504,466	7,136,375	1,684,466	1,768,690
Manufacture of Jewellery and Related Articles (5.91)	8,608,573	14,837,410	14,378,617	60,127,437
Wholesale of Textile, Clothing and Footwear (0.67)	53,212	61,247	29,151	30,622
Retail Sale of Textiles, Clothing, Footwear and Leather Goods (0.67)	1,733,387	1,992,659	947,822	995,213

Table 18: Value Added by Partial Copyright-based Industries in Tanzania, 2007-2010 (continued)

Activities*	2007	2008	2009	2010
Retail Sale of Household Appliances, Articles and Equipment (0.67)	18,642	21,484	332,446	349,067
Retail Sale of Hardware, Paints and Glass (0.39)	18,676	21,523	333,063	349,728
Other Retail Sale in Specialized Stores (0.67)	37,669	43,411	671,771	705,368
Washing and Dry Cleaning of Textiles and Fur Products (0.49)	44,495	51,274	24,381	25,605
Engineering, Architectural and Technical Services (9.15)	231,113,772	1,097,273,560	578,345,276	512,623,645
Total Value Added	253,061,249	1,128,952,495	602,576,873	580,788,572

*Figures in brackets are copyright factors applied.
Source: Statistical Abstract (2009).

“Engineering, architectural and technical services” recorded the highest employee income in the partial copyright industries throughout the years 2007 to 2010 (Table 19). In 2009, it contributed about TZS 62.515 million (or 96% of the total wages and salaries for partial copyright industries). This was followed by the manufacture of jewellery and related articles, which contributed TZS 1.592 million (or about 2.4% of the total wages and salaries for partial copyright industries). The lowest contribution was made by the manufacture of wearing apparel, and the dressing and drying of leather.

Table 19: Employee Income from Partial Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Manufacture of Textiles (0.49)	56,509	75,775	49,909	52,404
Manufacture of Wearing Apparel, Dressing and Drying of Leather (0.69)	951	788	531	557
Manufacture of Luggage, Handbags, Saddlers and Footwear (0.67)	2,853	3,152	5,310	5,570
Manufacture of Leather and Related Products (0.67)	10,943	10,804	10,118	10,623
Manufacture of Rubber and Plastic Products (0.67)	64,377	85,540	37,550	44,123
Manufacture of Glass Products (0.39)	140,410	186,568	81,900	96,234
Retail Sale of Glass and Hardware (0.39)	827	1,038	98	1,007
Manufacture of Wood and Cork Products Except Furniture (41.00)	771,488	987,932	31,165	327,185
Manufacture of Furniture (19.74)	810,805	627,724	458,948	485,278
Manufacture of Jewellery and Related Articles (5.91)	2812,688	2,177,580	1,592,095	1,683,434
Wholesale of Textile, Clothing and Footwear (0.67)	3,561	4,781	3,151	3,310
Retail Sale of Textiles, Clothing, Footwear and Leather Goods (0.67)	115,999	155,549	102,453	107,576
Retail Sale of Household Appliances, Articles and Equipment (0.67)	1,249	1,677	35,935	37,732
Retail Sale of Hardware, Paints and Glass (0.39)	1,251	1,680	36,002	37,803
Other Retail Sale in Specialized Stores (0.67)	2,524	3,389	72,614	76,246
Washing and Dry Cleaning of Textiles and Fur Products (0.49)	2,981	4,002	2,635	2,768
Engineering, Architectural and Technical Services (9.15)	15,485,635	85,654,263	62,515,002	55,411,289
Total Employee Income	20,285,051	89,982,242	65,035,416	58,383,139

Source: Statistical Abstract (2009).

As shown in Table 20, the manufacture of wood and cork products, except furniture, made the highest contribution to employment between 2007 and 2008, although it was overtaken by the manufacture of glass products and manufacture of furniture in 2009 and 2010 respectively. In 2009, the manufacture of glass products employed about 836 people (or 40% of total partial copyright industry employee numbers), followed by the manufacture of furniture, employing 516 people (25%).

Table 20: Employee Numbers in Partial Copyright-Based Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Manufacture of Textiles (0.49)	64	72	58	60
Manufacture of Wearing Apparel, Dressing and Drying of Leather (0.69)	1	1	1	1
Manufacture of Luggage, Handbags, Saddlers and Footwear (0.67)	3	4	10	10
Manufacture of Leather and Related Products (0.67)	8	9	10	10
Manufacture of Rubber and Plastic Products (0.67)	48	46	28	29
Manufacture of Glass Products (0.39)	170	179	836	96
Retail Sale of Glass and Hardware (0.39)	1	1	1	1
Manufacture of Wood and Cork Products Except Furniture (41.00)	933	952	319	325
Manufacture of Furniture (19.74)	520	479	516	502
Manufacture of Jewellery and Related Articles (5.91)	5	4	2	2
Wholesale of Textile, Clothing and Footwear (0.67)	4	5	4	4
Retail Sale of Textiles, Clothing, Footwear and Leather Goods (0.67)	132	117	120	123
Retail Sale of Household Appliances, Articles and Equipment (0.67)	46	52	42	43
Retail Sale of Hardware, Paints and Glass (0.39)	46	52	42	43
Other Retail Sale in Specialized Stores (0.39)	93	104	85	87
Washing and Dry Cleaning of Textiles and Fur Products (0.49)	3	4	3	3
Total Employee Numbers	2,077	2,081	2,077	1,339

Source: Statistical Abstract (2009).

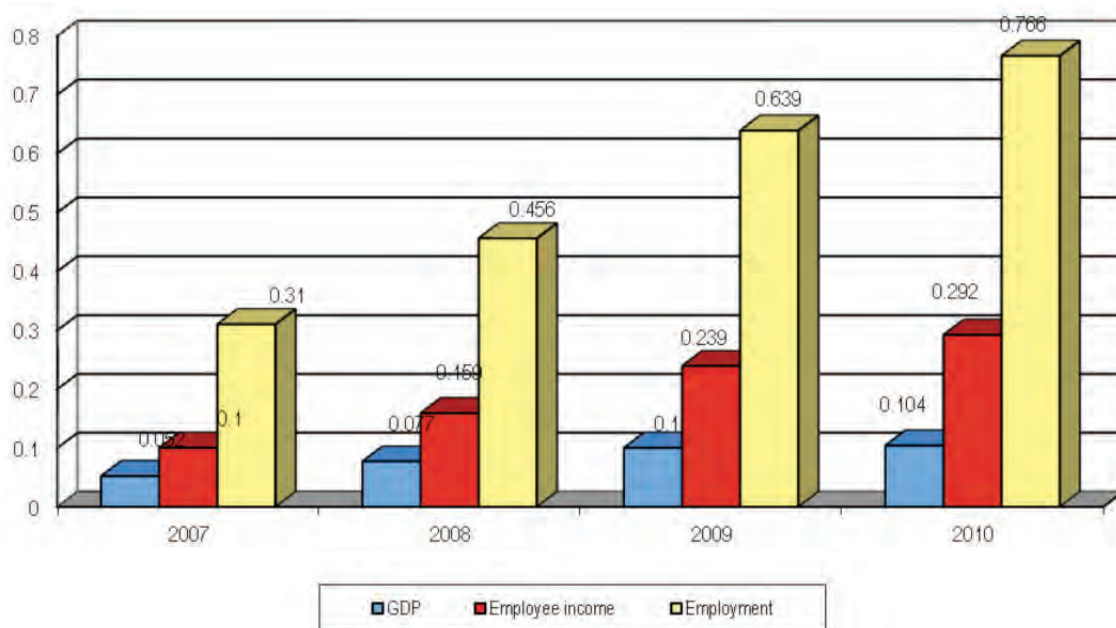
4.6 Economic Contribution of Non-Dedicated Support Industries

NDSIs together contributed between TZS 6.636 billion and TZS 16.646 billion of value added in the period 2007-2010. This formed about 0.05-0.1% of the total national value added over the same period. Concerning the contribution to employee income, NDSIs generated between TZS 1.393 billion and 5.045 billion, translating to about 0.1-0.3% of the total national income generated for employees between 2007 and 2010. With respect to employment, the industries together had between 1,958 and 5,982 employees, or about 0.3-0.8% of employees nationally (Table 21, Figure 18).

Table 21: Economic Contribution of Non-Dedicated Support Industries in Tanzania, 2007-2010

Year	Value Added		Employee Income		Employee Numbers	
	TZS	% contribution GDP	TZS	% contribution to national income	Head/Number	% contribution to national employment
2007	6,636,468,597	0.052	1,393,247,776	0.100	1,958	0.310
2008	10,671,127,425	0.077	2,385,293,414	0.159	3,097	0.456
2009	14,871,486,986	0.100	3,843,337,707	0.239	4,646	0.639
2010	16,646,030,407	0.104	5,045,498,049	0.292	5,982	0.766

Figure 18: Economic Contribution of Non-Dedicated Support Industries in Tanzania, 2007-2010 (%)



Total retail trade in 2009 provided the highest value added compared with all the other NDSIs. Total retail trade contributed TZS 3.936 billion (or 27% of the total value added for NDSIs). This was followed by clearing and forwarding, which contributed TZS 3.685 billion, or 25%. Courier activities were the lowest contributor, with TZS 54.354 million, or just 0.4% (Table 22).

Table 22: Value Added by Non-Dedicated Support Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Total Wholesale	994,077,068	2,151,412,137	2,020,192,527	2,294,963,710
Total Retail Trade	1,543,914,833	2,743,009,443	3,935,910,210	4,480,977,019
Inland Water Transport	806,917	3,754,476	76,746,805	3,156,407
Scheduled Air Transport	35,526,472	5,022,790	16,176,233	75,556,680
Other Transport	932,126,609	2,504,860,280	2,955,841,354	2,837,828,768
Cargo Handling	379,636,303	327,057,789	658,092,724	870,524,279
Activities of Travel Agencies and Tour Operators	516,772,929	887,301,733	1,142,167,269	715,027,735
Activities of Other Travel Agencies (Car Rentals)	29,373,363	50,646,822	61,955,611	145,785,626
Courier Activities Other than National Post Services	24,236,121	46,095,435	54,354,214	46,155,096
Telecommunications	48,587,180	64,333,723	203,427,288	277,661,578
Telephone and Fax Center	5,447,510	28,830,185	61,303,497	23,457,544
Clearing and Forwarding	2,125,963,292	1,858,802,612	3,685,319,254	
Total Value Added	6,636,468,597	10,671,127,425	14,871,486,986	11,771,094,442

Source: Statistical Abstract (2009).

As presented in Table 23, in 2009 total retail trade made the highest contribution in employee compensation in the non-dedicated industries, with TZS 2.759 billion, or about 72% of the total employee compensation for all the non-dedicated industries, which was TZS 3.843 billion. "Activities of other travel agencies" was the second contributor, with TZS 256.015 million, translating to about 7%.

Table 23: Employee Income from Non-Dedicated Support Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Total Wholesale	9,236,808	20,004,600	18,774,000	21,344,400
Total Retail Trade	1,082,124,420	1,922,551,176	2,758,667,652	3,229,153,200
Inland Water Transport	8,762	7,957	146,725	307,125
Scheduled Air Transport	11,923,498	1,685,849	51,896,700	242,392,500
Other Transport	5,642,812	15,165,825	171,178,650	164,335,500
Cargo Handling	25,270,158	21,752,399	43,743,722	57,896,074
Storage and Warehousing	112,398,311	96,841,679	194,825,735	257,747,246
Other Supporting Transport Activities	14,019	12,732	226,294	3,114,230
Activities of Travel Agencies and Tour Operators	2,222,076	3,814,370	46,968,525	29,867,374
Activities of Other Travel Agencies (Car Rentals)	124,867,960	215,322,240	256,014,780	602,406,000
National Post Activities	1,711,896	2,952,259	35,259,360	82,958,400
Courier Activities Other than National Post Services	53,726	102,903	1,180,080	1,008,000
Telecommunications	1,391,984	1,841,613	56,894,160	77,649,600
Internet Cafes	898,685	1,188,710	36,725,520	50,131,200
Telephone and Fax Center	15,482,661	82,018,860	170,253,360	225,187,200
Total Employee Income	1,393,247,776	2,385,263,172	3,842,755,263	5,045,498,049

Source: Statistical Abstract (2009).

In relation to employment, retail trade provided the greatest contribution in 2009, with 3,537 people, or 76% of the total employee numbers for NDSIs, which amounted to 4,646 persons that year. This was followed by "other transport", which had 304 employees, or 7% of NDSI employment (Table 24).

Table 24: Employee Numbers in Non-Dedicated Support Industries in Tanzania, 2007-2010

Activity	2007	2008	2009	2010
Total Wholesale	11	24	22	25
Total Retail Trade	1,387	2,465	3,537	4,140
Inland Water Transport	1	1	1	1
Scheduled Air Transport	203	29	92	431
Other Transport	96	258	304	292
Cargo Handling	13	11	22	29
Storage & Warehousing	56	48	97	128
Other Supporting Transport Activities	1	1	1	1
Activities of Travel Agencies & Tour Operators	38	65	83	52
Activities of Other Travel Agencies (Car Rentals)	89	54	183	430
National Post Activities	21	36	44	104
Courier Activities Other than National Post Services	1	1	1	1
Telecommunications	17	22	71	97
Internet Cafes	11	15	46	63
Telephone & Fax Center	13	67	142	188
Total Employee Numbers	1,958	3,097	4,646	5,982

Source: Business Survey (2008); Statistical Abstract (2009).

5. External Trade in Copyright-Based Industries in Tanzania

This chapter analyzes the overall performance of copyright-based industries with respect to foreign/external trade. The performance of an industry in external trade reflects the share of a country's industry in the world economy. It has been shown that copyright industries in Tanzania made a sizeable contribution to foreign trade.

5.1 Exports for Copyright-Based Industries

Table 25 shows the contribution of copyright-based industries to Tanzania's national exports. As this table shows, the proportional contribution of the industries was highest in 2007, before declining in 2008, increasing in 2009 and then declining again in 2010.

In 2007 the copyright-based industries contributed a total of TZS 163,420,008,892, or 7.3% of the total national exports of TZS 2,236,955,979,056. In 2008, they contributed 6%, in 2009 they recorded 6.9%, and in 2010 they contributed 6%.

Table 25: Exports of Copyright-Based Goods and Services in Tanzania, 2007-2010

Description	2007	2008	2009	2010
Total Core Copyright Industries	1,140,542,810	5,432,341,597	2,436,651,905	710,096,715
Total Interdependent Copyright Industries	63,284,208,986	168,541,514,265	104,919,964,292	244,582,008,431
Total Partial Copyright Industries	98,870,888,077	22,594,398,370	137,272,519,556	71,679,421,711
Total Non-Dedicated Copyright Industries	124,369,019	604,501,768	887,365,977	1,147,899,095
Total Copyright Industries	163,420,008,892	197,172,756,000	245,516,501,730	318,119,425,952
Total National Exports	2,236,955,979,056	3,293,456,682,985	3,568,070,868,823	5,286,770,215,821

5.2 Exports for Core Copyright Industries

Generally, the proportional contribution of core copyright industries increased between 2007 and 2008, before decreasing between 2008 and 2010. The total value of exports of core copyright industries increased sharply from 2007 to 2008, moving from TZS 1.141 billion to TZS 5.432 billion, before exhibiting a drastic decrease in 2009 and 2010 (Table 26).

The core copyright industries contributed about 0.1% of the total national export value in 2007. In 2008, the core copyright industries contributed about 0.2%, a considerable increase from the previous year. There was, however, a reduction in 2009, when the core copyright industries contributed about 0.1% of the total national exports for that year. The core copyright industries contributed their lowest values in 2010, with about 0.01%, a sharp reduction compared with 2008 and 2009 (Table 26).

Table 26: Proportion of Total Export Value of Core Copyright Industries to the National Export Value in Tanzania, 2007-2010

Export Value	2007	%	2008	%	2009	%	2010	%
Total Value of Export for Core Industries	1,140,542,810	0.05	5,432,341,597	0.17	2,436,651,905	0.07	710,096,715	0.01
Total National Export	2,236,955,979,056	100	3,293,456,682,985	100	3,568,070,868,823	100	5,286,770,215,821	100

Table 27 provides the export values of the sub-sectors (or activities that fall under them) of the core copyright industries. The dramatic arts, music and other artistic activities contributed the majority of value to the core copyright industries in 2007 – about 79.7% of the total core copyright industries in that year. In the following year, however, this changed, as publishing, printing and reproduction of recorded media did better, contributing about 88.5% of the total contribution of core copyright industries.

Table 27: Export Values for Sub-Sectors of Core Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Publishing, Printing and Reproduction of Recorded Media	231,261,533	4,807,704,978	2,321,764,551	381,872,106
Dramatic Arts, Music and Other Artistic Activities	909,281,277	624,636,619	114,887,354	328,224,609
Total Core	1,140,542,810	5,432,341,597	2,436,651,905	710,096,715

Source: TRA Summary Report.

5.3 Exports for Interdependent Copyright Industries

The contribution of interdependent copyright industries to the national economy almost doubled between 2007 and 2008, before experiencing a slight decrease in 2009, after which it increased again in 2010. The industries recorded the highest values in 2008 in terms of proportional contribution to the national exports. In 2007, the industries contributed about 2.8% of the total national exports, before increasing to about 5.1% in the following year. In 2009, the interdependent copyright industries dropped slightly, contributing about 2.9% before again increasing to 4.6% in 2010.

The proportion of national export value contributed by the interdependent copyright industries was the highest in 2008 (5.1%) followed by the 2010 figure of about 4.6%. The lowest contribution was made in 2007 (Table 28).

Table 28: Proportion of Total Export Value of Interdependent Copyright Industries to the National Export Value in Tanzania, 2007-2010

Export Value	2007	%	2008	%	2009	%	2010	%
Total Values of Exports for Interdependent Industries	63,284,208,986	2.80	168,541,514,265	5.12	104,919,964,292	2.94	244,582,008,431	4.63
Total National Exports	2,236,955,979,056	100	3,293,456,682,985	100	3,568,070,868,823	100	5,286,770,215,821	100

Among the sub-sectors of the interdependent industries, electrical equipment and supplies remained the highest contributor in terms of export value between 2007 and 2009, only being overtaken by the pulp, paper and paperboard sub-sector in 2010. The sub-sectors of musical instruments and professional and scientific equipment remained among the lowest contributors in terms of exports throughout the years of study (Table 29). In 2010, for example, electrical equipment contributed about 35.1%, which was second after the pulp, paper and paperboard sub-sector, which contributed about 39.6%, while musical instruments contributed only 0.3%.

Table 29: Export Values for Sub-Sectors of Interdependent Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Pulp, Paper and Paperboard	14,648,992,890	29,784,837,179	29,322,482,303	96,818,269,204
Chemicals and Chemical Products	6,154,781,260	9,779,391,331	12,818,021,439	14,089,837,944
Photographic and Optical Goods	1,186,558,996	3,551,832,155	3,519,747,718	13,140,676,977
Professional and Scientific Equipment	6,725,652	143,709,576	81,400,504	139,449,196
Electrical Equipment	37,035,375,895	124,482,129,378	55,517,934,624	85,804,606,824
Household Appliances, Radio and TV Goods	3,331,256,183		3,198,331,954	33,041,900,263
Musical Instruments	21,010,962	94,255,569	2,624,809	607,231,055
Other Manufactured Goods	899,507,148	705,359,077	459,420,941	940,036,968
Total Interdependent	63,284,208,986	168,541,514,265	104,919,964,292	244,582,008,431

Source: TRA Summary Report.

5.4 Imports for Core and Interdependent Copyright Industries

The value of imports remained higher than that of exports during the period 2007 to 2010. This can be attributed to the fact that most equipment used in the production of these core copyright industries is not manufactured in Tanzania. The total raw import value of the core copyright industries decreased steadily between 2007 and 2009, before increasing sharply in 2010. However, this does not necessarily translate to a percentage change in contribution to the national imports, as their value neither decreased nor increased.

In 2007, the core copyright industries contributed about 0.5% of national imports, while in 2008 they contributed about 0.4%. In 2009 and 2010, the copyright industries contributed just under 0.4% of the national imports (Table 30). In terms of percentage contribution to the national imports, the highest was recorded in 2007 while the lowest was in 2010.

In 2007, the interdependent copyright industries contributed approximately 17.6% of the total national imports, while in 2008 the contribution stood at about 13.2%. In 2009, they contributed 16.9%, while in the subsequent year they contributed approximately 14.3%. These data show that the highest percentage contribution was recorded in 2007, while the lowest was in 2008 (Table 30).

Table 30: Imports of Copyright-Based Goods and Services in Tanzania, 2007-2010

Description	2007	%	2008	%	2009	%	2010	%
Total Core Copyright Industries	37,264,432,438	0.51	36,987,627,512	0.42	35,936,863,425	0.43	40,086,272,058	0.36
Total Interdependent Copyright Industries	1,285,959,127,175	17.64	1,164,536,620,250	13.17	1,430,232,869,413	16.93	1,579,765,717,632	14.25
Total Partial Copyright Industries	49,366,684,147	0.68	58,334,968,199	0.66	70,126,462,128	0.83	76,616,264,869	0.69
Total Non-Dedicated Copyright Industries	20,799,548,520	0.26	45,974,934,237	0.52	30,593,743,195	0.36	59,201,700,460	0.53
Total Imports	1,393,389,792,280	19.09	1,305,834,150,198	14.77	1,566,889,938,161	18.55	1,755,669,955,019	15.83
Total National Imports	7,291,405,414,113	100	8,839,817,118,357	100	8,446,720,722,512	100	11,086,877,422,981	100

Table 31 provides import values for the sub-sectors of core copyright industries. Publishing, printing and reproduction of recorded media accounted for the bulk of the core copyright industries throughout the period 2007 to 2010.

Table 31: Import Values for Sub-Sectors of Core Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Publishing, Printing and Reproduction of Recorded Media	36,054,819,287	35,783,604,998	35,193,088,996	39,608,633,500
Dramatic Arts, Music and other Artistic Activities	1,209,613,151	1,204,022,514	743,774,429	477,638,558
Total Imports	37,264,432,438	36,987,627,512	35,936,863,425	40,086,272,058

Source: TRA Summary Report.

The values of imports of the various sub-sectors of the interdependent copyright industries are provided in Table 32. Imports of electrical equipment had the highest values throughout the period 2007 to 2010. Chemicals and chemical products were second, while musical instruments attributed the least value. In 2010, electrical equipment contributed about 41.4% of the total value of imported products of interdependent copyright industries, while in the same year chemicals and chemical products contributed about 35.8%. Musical equipment, which remained the lowest contributor throughout the period, recorded a value of

0.04% in 2010. Electrical equipment had the highest value, perhaps because electrical equipment is essential in production within many copyright industries.

Table 32: Import Values for Sub-Sectors of Interdependent Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Pulp, Paper and Paperboard	85,488,478,305	1,255,659,280	108,462,940,065	144,704,827,605
Chemicals and Chemical Products	436,092,458,195	310,412,063,324	421,995,314,839	564,926,052,499
Photographic and Optical Goods	87,091,539,787	92,344,796,830	195,075,485,708	95,131,634,448
Professional and Scientific Equipment	776,381,071	1,098,862,845	1,136,706,410	9,832,469,717
Electrical Equipment	667,742,991,708	674,695,038,978	605,568,255,721	654,650,590,754
Household Appliances, Radio and TV Goods	59,815,455,606	74,711,476,579	84,912,345,556	93,155,755,935
Musical Instruments	423,849,502	395,163,715	760,976,693	659,907,630
Other Manufactured Goods	8,283,613,151	9,623,558,699	12,320,844,421	16,704,479,044
Total Imports	1,285,959,127,175	1,164,536,620,250	1,430,232,869,413	1,579,765,717,632

Source: TRA Summary Report.

5.5 Exports and Imports for Partial Copyright Industries

The values of exports of the various sub-sectors of the partial copyright industries are provided in Table 33. The sub-sector of jewellery and related articles was generally the highest contributor throughout the period of study, followed by materials of wood and cork products, except furniture. Partial copyright industries in 2009 contributed about TZS 137.273 billion (3.8% of the total national exports).

Table 33: Export Values for Sub-Sectors of Partial Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Materials of Textiles (0.49)	311,128,767	419,191,018	776,881,325	823,588,432
Wearing Apparel (0.69)	73,106,566	87,763,318	72,842,678	381,540,150
Luggage, Handbags and Footwear (0.67)	24,189,542	19,215,169	38,314,825	259,142,972
Articles of Leather, Saddlers and Related Products (0.67)	290,608	1,264,784	484,012	94,895,060
Materials of Rubber and Plastic (0.67)	346,653,410	278,774,146	229,356,698	5,210,097,774
Materials of Glass and Glass Products (0.78)	45,821,092	67,519,557	86,597,305	354,611,428
Materials of Wood and Cork Products Except Furniture (41.00)	13,326,198,051	13,530,381,580	18,411,188,911	12,304,935,834
Jewellery and Related Articles (11.92)	84,541,383,544	6,089,694,565	117,491,120,799	44,119,180,512
Structural Clay Products (4.68)	98,675,712	68,335,107	36,124,105	3,751,724,781
Pottery, China and Earthenware (4.68)	72,279,164	2,726,709	10,042,381	872,099,612
Toys and Games (45.83)	31,161,621	2,029,532,417	119,566,517	3,507,605,156
Total Exports	98,870,888,077	22,594,398,370	137,272,519,556	71,679,421,711
Total National Exports	2,236,955,979,056	3,293,456,682,985	3,568,070,868,823	5,286,770,215,821

Source: TRA Summary Report.

Regarding imports, the sub-sector of jewellery and related articles contributed the bulk, amounting to TZS 117.491 billion (or 67% of total imports in 2009 for partial copyright industry products). This amounted to 0.5% of total national imports. The sub-sector of materials of wood and cork products, except furniture, was second, with a contribution of about 18% of the total imports for partial copyright industries for that particular year. Partial copyright industries contributed about 1% of the total national imports in 2009. In general, the sub-sector of materials of rubber and plastic recorded the highest values throughout the period between 2007 and 2010 (Table 34).

Table 34: Import Values for Sub-Sectors of Partial Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Materials of Textiles (0.49)	545,705,202	588,446,109	676,905,049	823,857,359
Wearing Apparel (0.69)	155,395,942	254,217,899	275,202,747	381,540,150
Luggage, Handbags and Footwear (0.67)	156,605,101	167,137,179	200,736,200	259,142,972
Articles of Leather, Saddlers and Related Products (0.67)	72,481,894	67,225,863	80,785,409	94,895,060
Materials of Rubber and Plastic (0.67)	2,626,868,656	2,186,200,352	3,533,668,363	5,210,097,774
Materials of Glass and Glass Products (0.78)	178,091,049	188,287,223	317,588,886	354,611,428
Materials of Wood and Cork Products Except Furniture (41.00)	6,300,159,899	10,420,352,069	12,470,144,978	12,304,935,834
Jewellery and Related Articles (11.92)	34,578,524,965	39,355,063,919	46,718,740,431	48,025,845,020
Structural Clay Products (4.68)	1,926,333,088	2,231,904,395	2,763,423,109	3,751,724,781
Pottery, China and Earthenware (4.68)	623,554,317	636,332,529	646,875,886	872,099,612
Toys and Games (45.83)	2,202,964,034	2,239,800,662	2,442,391,070	4,537,514,879
Total Imports	49,366,684,147	58,334,968,199	70,126,462,128	76,616,264,869
Total National Imports	7,291,405,414,113	8,839,817,118,357	8,446,720,722,512	11,086,877,422,981

Source: TRA Summary Report.

5.6 Exports and Imports for Non-Dedicated Copyright Industries

Regarding non-dedicated copyright products, the sub-sector of “other transport” remained the best performer in terms of exports, contributing TZS 696 million (or 78% of the total exports of the NDSIs), translating to 0.2% of the total national export values for the year 2009. This was followed by scheduled air transport, which contributed 0.005% of the total national export values. The NDSIs contributed 0.03% of the total national export values for the year 2009 (Table 35).

Table 35: Export Values for Sub-Sectors of Non-Dedicated Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Inland Water Transport	3,649,628	779,964	956,663	39,422,873
Scheduled Air Transport	2,776,663	259,820,071	190,400,582	140,897,442
Other Transport	117,942,728	343,901,733	696,008,732	967,578,780
Total Exports	124,369,019	604,501,768	887,365,977	1,147,899,095
Total National Exports	2,236,955,979,056	3,293,456,682,985	3,568,070,868,823	5,286,770,215,821

Source: TRA Summary Report.

Table 36 shows that, in 2009, the “other transport” sub-sector was the highest contributor of all the non-dedicated industries, contributing 90.6% of the total imports for non-dedicated products, translating to 0.32% of the total national imports that year. This was followed by scheduled air transport, which contributed 0.024% of the total national import values. Total non-dedicated copyright industries contributed about 0.36% of the total national import values.

Table 36: Import Values for Sub-Sectors of Non-Dedicated Copyright Industries in Tanzania, 2007-2010

Sub-Sector	2007	2008	2009	2010
Inland Water Transport	214,659,387	473,606,108	854,739,010	1,902,811,734
Scheduled Air Transport	1,215,991,755	6,724,548,243	2,032,944,607	4,526,456,677
Other Transport	19,368,897,378	38,776,779,886	27,706,059,578	52,772,432,049
Total Imports	20,799,548,520	45,974,934,237	30,593,743,195	59,201,700,460
Total National Imports	7,291,405,414,113	8,839,817,118,357	8,446,720,722,512	11,086,877,422,981

Source: TRA Summary Report.

5.7 Balance of Trade in Copyright-Based Industries

Table 37 compares the copyright-based industries in terms of their exports, imports and trade balances in Tanzania in 2009. Only partial copyright industries recorded a positive trade balance. The value of exports in the group of core copyright-based industries in 2009 was about TZS 2.4 billion, which accounted for about 0.1% of the total national exports. On the other hand, the value of imports was about TZS 35.9 billion, comprising 0.4% of all imports. The core copyright-based industries registered a negative trade balance of about TZS 33.5 billion.

The value of exports for partial copyright-based industries was about TZS 137.3 billion, which accounted for 3.9% of the total national exports, while the value of imports was about TZS 70.1 billion, constituting 0.8% of all national imports. The relative contribution of partial copyright-based industries to exports was about 60 times that of core copyright-based industries, suggesting that the former had a higher local component with an external market compared with the latter.

Table 37: Tanzania's Balance of Trade in Copyright-Based Goods and Services in Tanzania in 2009

Industry	Exports	% of Total National Economy	Imports	% of Total National Economy	Trade Balance (Exports minus Imports)
Core	2,436,651,905	0.07	35,936,863,425	0.43	-33,500,211,520
Interdependent	104,919,964,292	2.91	1,430,232,869,413	16.93	-1,325,312,905,121
Partial	137,272,519,556	3.85	70,126,462,128	0.83	67,146,057,428
Non-Dedicated	887,365,977	0.03	30,593,743,195	0.36	-29,706,377,218
TOTAL COPYRIGHT INDUSTRIES	24,551,6501,730	6.88	1,566,889,938,161	18.55	-1,321,373,436,431
Total National Economy	3,568,070,868,823	100	8,446,720,722,512	100	-4,878,649,853,689

The shares of exports and imports among copyright industries in Tanzania in 2009 are shown in Figures 19 and 20. Partial industries made the highest contribution to exports (56%), followed by interdependent industries (43%), while the country spent the most in importing interdependent copyright products (92%), followed by partial copyright products (4%).

Figure 19: Export Shares among Copyright-Based Industries in Tanzania in 2009 (%)

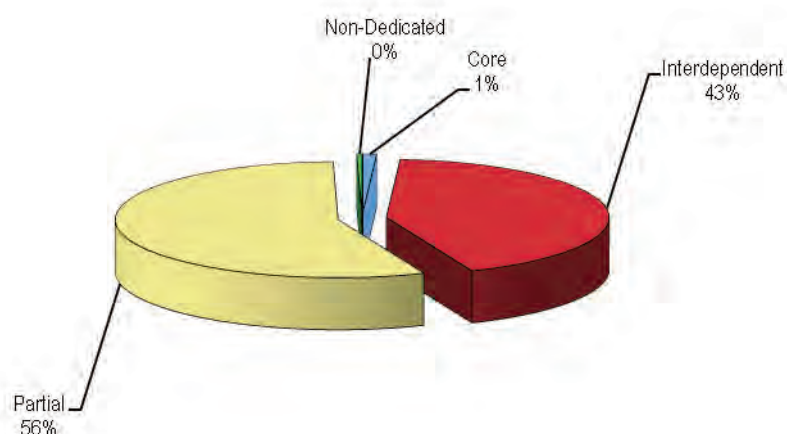


Figure 20: Import Shares among Copyright-Based Industries in Tanzania in 2009 (%)

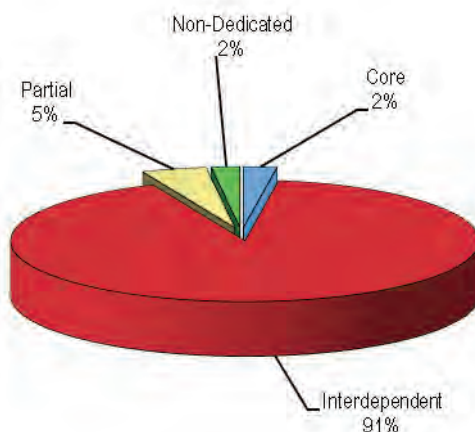


Figure 21 presents the contribution of the various copyright-based industries in terms of exports and imports relative to Tanzania's total national economy in 2009. This clearly demonstrates that while the partial copyright-based industries contributed more export value than import cost compared with the national economy, all of the copyright-based industries combined produced a relatively lower export value than import value when compared with the whole economy.

Figure 22 further illustrates the enormous national trade deficit compared with that in the copyright-based industries, mainly contributed by the interdependent copyright industries. Proportionally (see Table 37), imports were more than six-fold (6.4 times) greater than exports in the overall economy, while they were only about double (2.4 times) the exports in the total copyright-based industries, implying that, comparatively, the copyright-based industries are performing worse than the overall national economy.

Figure 21: Contribution of Exports and Imports of Copyright-Based Industries to Tanzania's National Economy in 2009 (%)

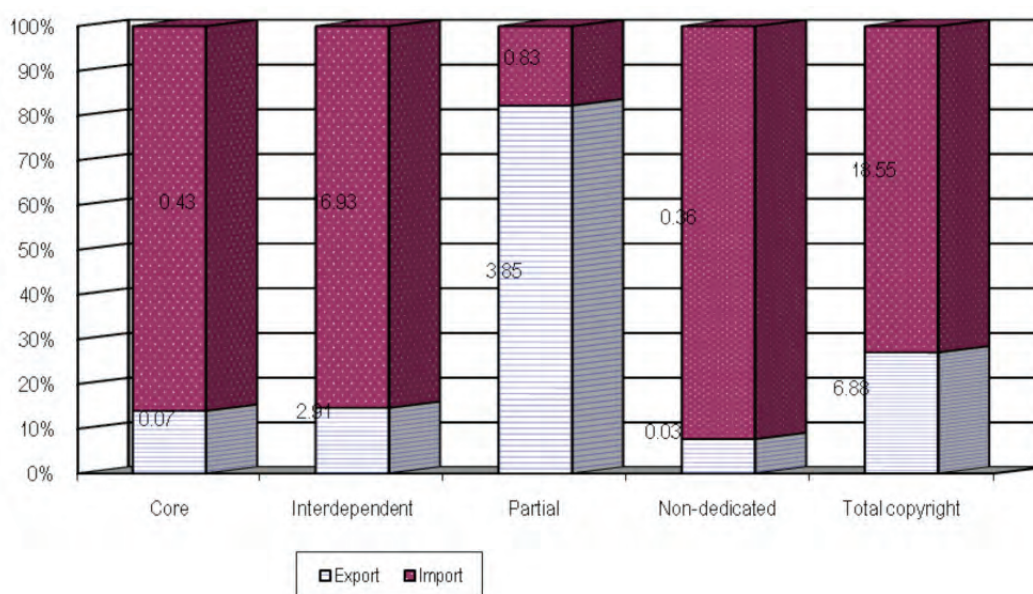
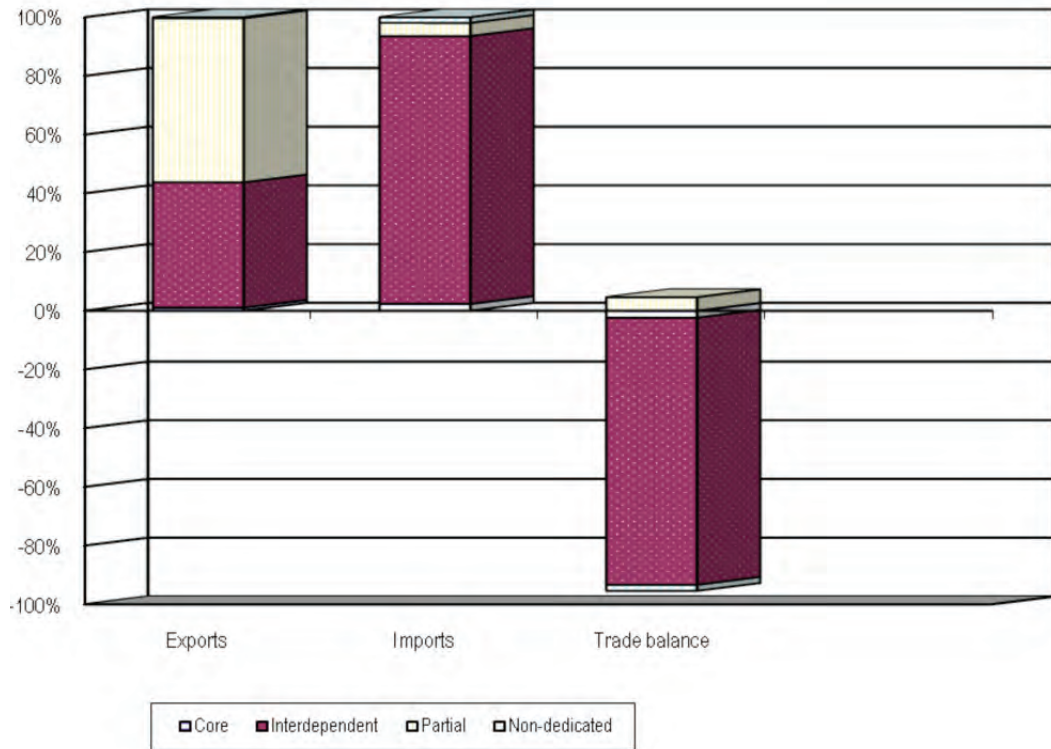


Figure 22: Proportions Contributed by Copyright-Based Industries to Exports, Imports and Trade Balance in Tanzania in 2009 (%)

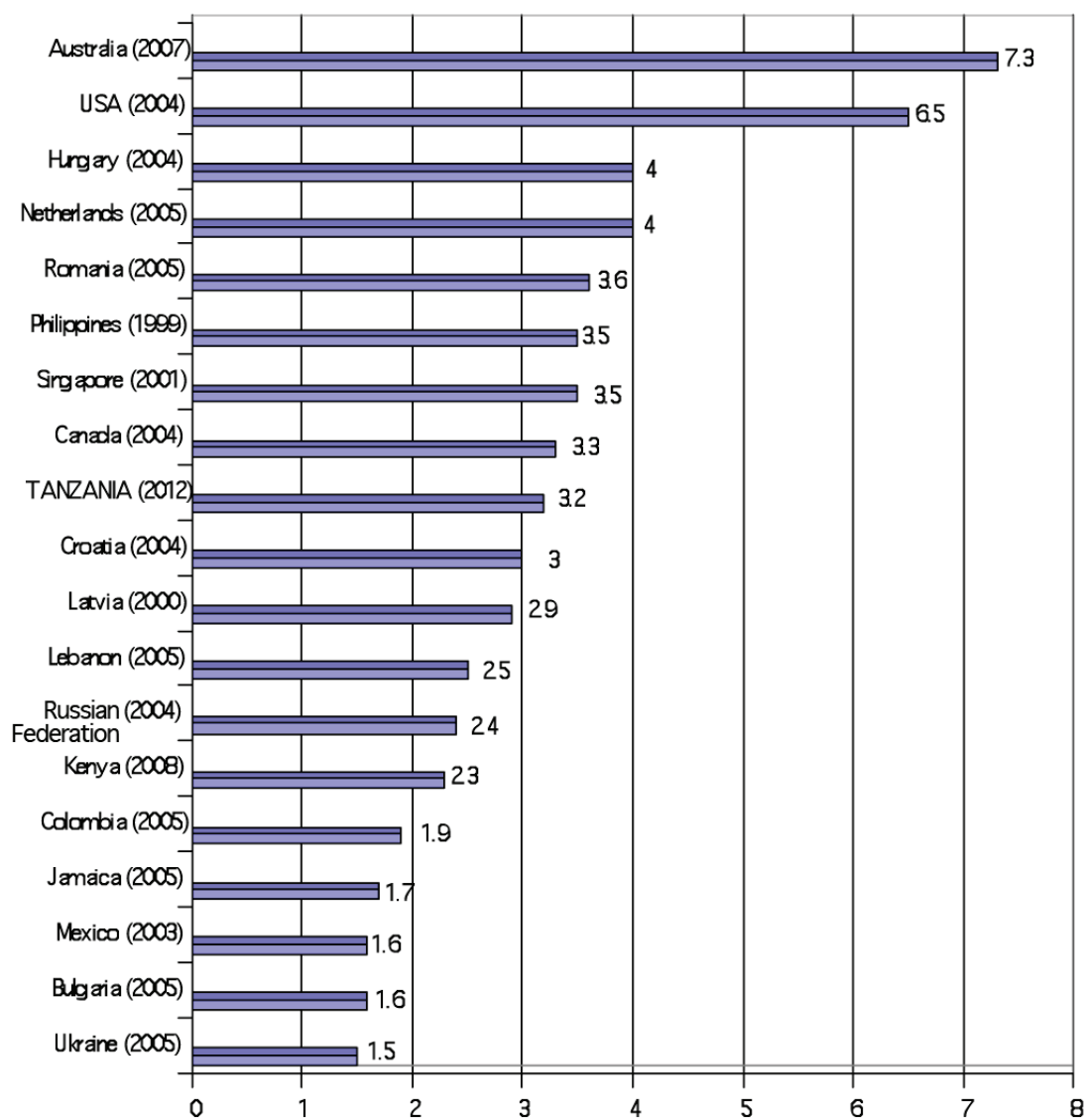


6. Comparison of Tanzania's Study Results with Previous Studies

This chapter provides a comparison of the results of this study of Tanzania based on 2009 data with results of similar studies carried out in various countries using the WIPO guide. While the statistics generally provide a picture of the international situation, they nevertheless represent different years of study (shown in brackets in the figures), and this therefore may not present a perfect comparison. The countries compared with Tanzania include Kenya, Singapore, the United States of America, Hungary, Jamaica, Colombia, and the Netherlands, among others. Kenya was the first Sub-Saharan African country to complete this kind of study, in 2008, and therefore provides a good comparison, particularly because of its proximity and similar economic structure to Tanzania.

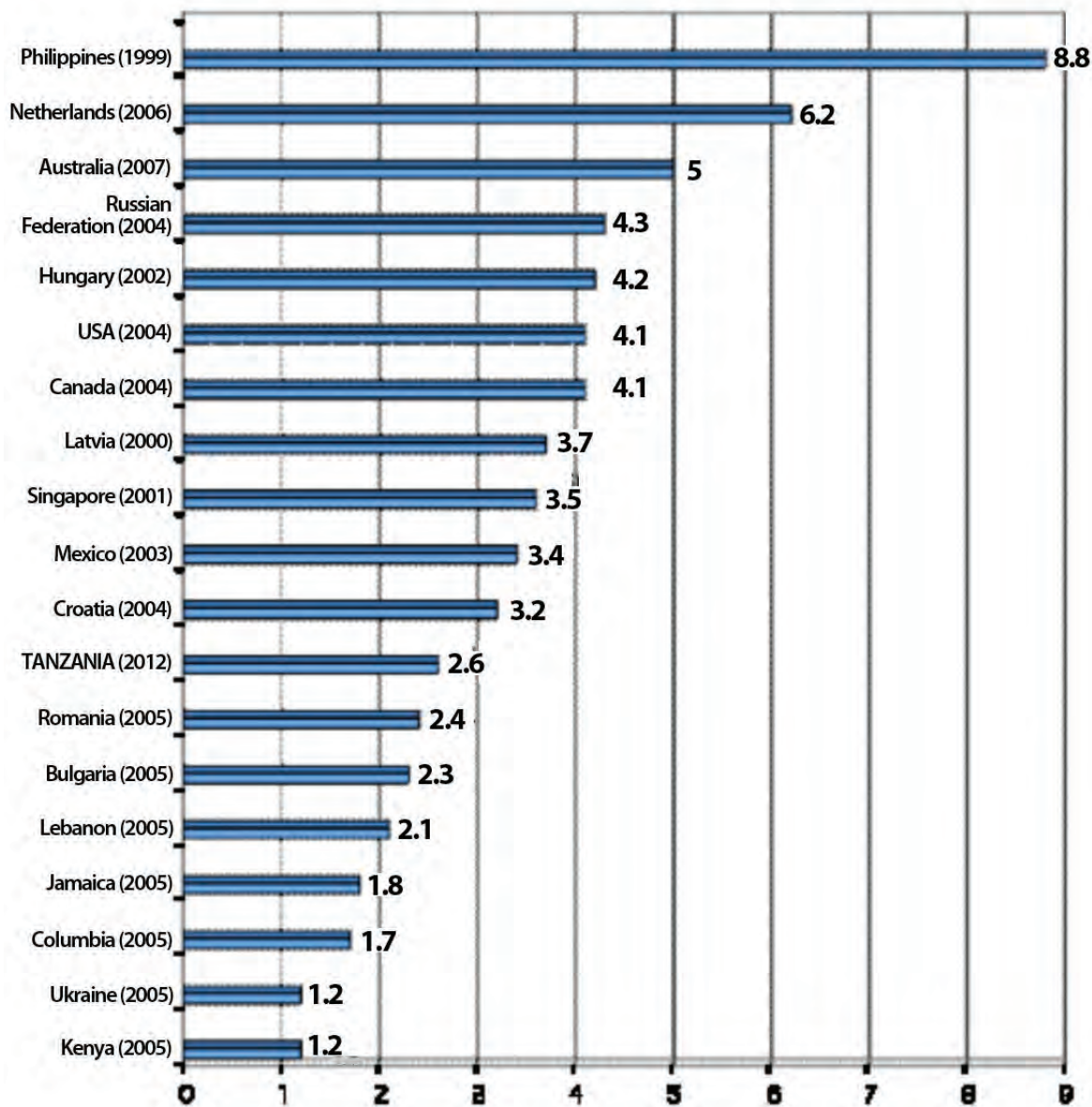
The results of the Tanzania study are to some extent consistent with those of Kenya and most other countries. Tanzania's core copyright industries contributed about 3.2% to the GDP in 2009. This performance is better than that of 11 countries, including Croatia (3%), Latvia (2.9%), Lebanon (2.5%), the Russian Federation (2.4%), and Kenya (2.3%). So far, among the available results from studies based on the WIPO Guide, Australia records the highest (7.3%), while Ukraine (1.5%) is the lowest performing, based on value added by core copyright industries. These results indicate that, out of the 19 countries compared, Tanzania is placed ninth in terms of the importance of the copyright industries to its economy (Figure 23).

Figure 23: International Comparison of the Contribution of Core Copyright-Based Industries to GDP (%)



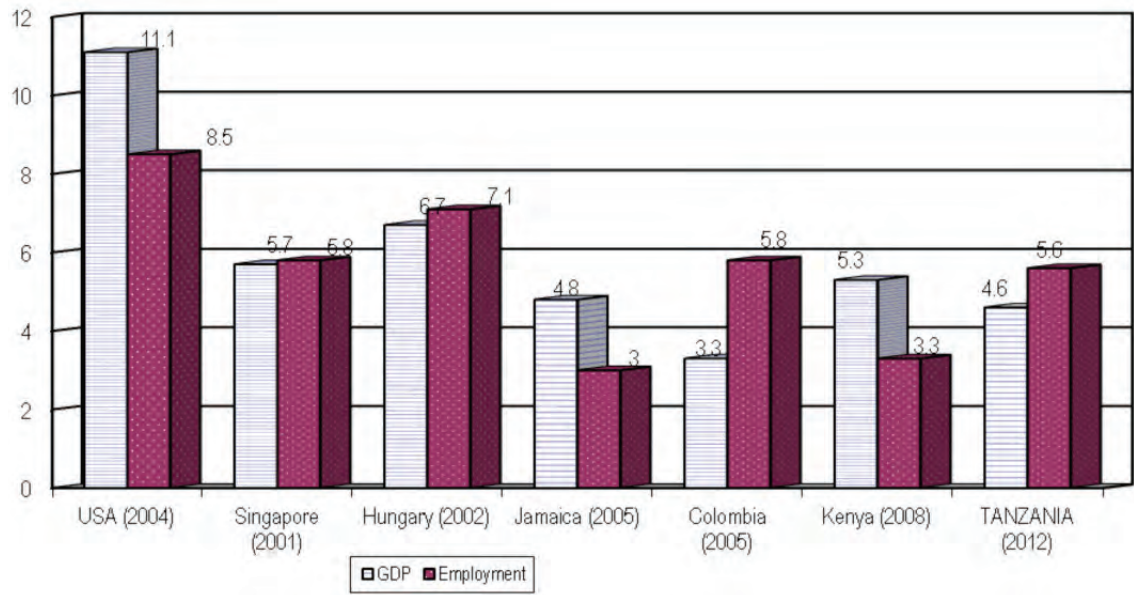
Tanzania also performed well with regard to the proportion of national employment contributed by the core copyright-based industries. A value of 2.6% placed it above seven countries, namely Romania (2.4%), Bulgaria (2.3%), Lebanon (2.1%), Jamaica (1.8%), Colombia (1.7%), Kenya (1.2%) and Ukraine (1.2%) (Figure 24).

Figure 24: International Comparison of the Contribution of Core Copyright-Based Industries to Employment (%)



We also compare the contributions of the total copyright-based industries to GDP and employment between Tanzania and six other countries: a Sub-Saharan country (Kenya), the United States of America, a European Union country (Hungary), an Asian country (Singapore), a Caribbean country (Jamaica), and a country from Latin America (Colombia). The results indicate that Tanzania performed fairly well, comparing well with Kenya, Colombia, Jamaica and Singapore (Figure 25).

Figure 25: International Comparison of the Total Copyright-Based Industries to GDP and Employment (%)



7. A Review of Developments of Selected Core Copyright-Based Industries in Tanzania

This chapter presents profiles and development trends of some of the core copyright industries. The chapter seeks to explain briefly the trends and important issues regarding press and literature, music, theatrical production, opera, film production and videos, radio and television, and business and professional associations.

7.1 The Media

“The media” is a term that collectively represents radio, television, magazines and newspapers.⁹ The media is an important player in any society, Tanzania included, as it serves to inform and educate the public about what is happening, daily or occasionally. Media also plays an important role in entertainment, as many radio stations play music that is an important component in people’s daily lives.

The audience in Tanzania presents varied demands to the media, as many people listen to radio, read newspapers and take part in educative programs. In Tanzania, radio remains people’s most popular home-based pastime. *Dala dalas* (public transport vehicles) also have radios, which tune in to local stations to entertain the passengers.

Approximately 60% of Tanzanian households have a radio set. The literacy rate is over 85%, so the majority of the population can read and write.

7.2 The Press and Literature

7.2.1 Tanzania Newspapers

Newspapers in Tanzania represent various interests and tastes, depending on the readers. Since the advent of multi-party politics in the country, many newspapers have sprung up. Newspapers are written in both English and Kiswahili (Table 39), but English newspapers are more dominant in terms of numbers. Most newspapers in Tanzania report day-to-day events, especially politics, social and economic issues.¹⁰ Table 38 is, however, not exhaustive, as some tabloids are not included.

Ownership of the newspapers is mixed, with some owned privately while others are state-owned. The income of most newspapers and periodicals derives mainly from sales to readers and advertising. Print media is the largest advertising medium in Tanzania.

Other than the dailies, a large number of weekly and other assorted periodicals are published in Tanzania. These are presented in Box 2.

⁹ http://www.tanzania.go.tz/mass_media.html

¹⁰ <http://www.pressreference.com/Sw-Ur/Tanzania.html>

Table 38: Daily Newspapers and Languages of Publication in Tanzania

Name of newspaper	Language	Circulation/Day (Copies)
Arusha Raha	Kiswahili	N/A*
Arusha Times	English	N/A
Business Times	English	N/A
The Citizen	English	N/A
Daily News	English	50,000
The Express	English	N/A
The Guardian	English	N/A
Kafoi Online	English and Kiswahili	N/A
Mwananchi	Kiswahili	N/A
Raia Mwema	Kiswahili	N/A
Tanserve	English	N/A
Tanzania Daima	Kiswahili	N/A
The African	English	N/A
Alasiri	Kiswahili	N/A
The Democrat	English	15,000
Kipanga (Kite)	Kiswahili	N/A
Majira (Times)	Kiswahili	15,000
Nipashe (Inform me/Information)	Kiswahili	N/A
Uhuru (Freedom)	Kiswahili	100,000
Mtanzania (The Tanzanian)	Kiswahili	N/A

*N/A = Data not available.

Box 2: Weekly and Other Periodicals

Weeklies:

Business Times, published in Dar with a circulation of 15,000 copies.

The Express, published in Dar with a circulation of 20,000 copies.

Government Gazette, published in Zanzibar for official government announcements.

Mfanyakazi (The Worker), published in Dar with a circulation of 100,000 copies.

The Family Mirror, published in Dar.

Mzalendo (The Patriot), published in Dar with a circulation of 115,000 copies.

Leta Raha (Bring Comfort), published in Dar.

Nipashe Jumapili (Sunday Information), published in Dar.

Sunday News, published in Dar with a circulation of 50,000 copies.

Sunday Observer, published in Dar.

Taifa Letu (Our Nation), published in Dar.

Kweupe (Open Space), published in Zanzibar by the Information and Broadcasting Services.

Other Periodicals:

The African Review, the periodical is produced twice per year with a circulation of approximately 1,000. It is a journal of African politics, development and international affairs and it is published by the Political Science department at UDSM.

Eastern African Law Review, also published twice yearly with a circulation of approximately 1,000 copies.

Taamuli, which means “thought”. It is produced in Dar twice yearly published by the Political Science department at UDSM.

Elimu Haina Mwisho, Swahili for “education has no end” or “perpetual education”, is published in Mwanza monthly with a circulation of about 45,000 copies.

Habari za Washirika (Union News), which is published in Dar monthly by the Co-Operative Union of Tanzania and has a circulation of 40,000.

Jenga (Build), (DSM, Journal of the National Development Corporation), with a circulation of 2,000.

Kiongozi (The Leader), is published fortnightly by the Roman Catholic Church with a circulation of 33,500.

Mlezi (The Guardian), published every two months and with a circulation of 8,000.

Mwenge (The Torch), published monthly with a circulation of 10,000.

Nchi Yetu (Our Country), published monthly in Dar with a total circulation of 50,000.

Nuru (The Light), which is the official Zanzibar Government publication published twice monthly with a circulation of approximately 8,000 copies.

Safina (The Ship), published in Dar with a circulation of 10,000.

Sauti ya Jimbo (Voice of the Province), published in Dodoma quarterly by the Anglican Diocese.

Sikiliza (Listen), published quarterly in Morogoro by the Seventh Day Adventist Church with a circulation of 100,000 copies.

Tantravel, published in Dar quarterly.

Tanzania Trade Currents, published twice monthly in Dar with a circulation of 2,000 copies.

Uhuru na Amani (Freedom and Peace), published in Arusha quarterly, by the Evangelical Lutheran Church in Tanzania with a circulation of 15,000 copies.

Ukulima wa Kisasa (Modern Farming), published twice monthly in Dar by the Ministry of Agriculture with a circulation of 15,000 copies.

Kiswahili is the national language of Tanzania. The leadership and the people of Tanzania are fully educated in Kiswahili, and all debates in parliament are in this language. Tanzania is one of the few countries in Sub-Saharan Africa where Kiswahili is appreciated, and this has had an impact on the development of the press. The reason for this is that Tanzania as a country has experienced historical events that have not occurred elsewhere. Kiswahili, which is a Bantu language with some Arabic loan words, was developed due to the influence of traders from Yemen and Oman.¹¹

Kiswahili's strongest presence has been along the coast and adjacent islands and is due to Arab immigration and traders who went very deep into the interior, as far as the Congo (formerly Zaire) and Malawi. The Arab incursion into the African interior from the Tanganyika coast was the first engine for the spread of Kiswahili.

The Maji Maji revolt, the union between the islands of Zanzibar and Tanganyika, and Germany's language policy for Tanzania, contributed greatly to the spread of the Kiswahili language. During the Maji Maji revolt, which was an uprising against the German colonial rulers, Kiswahili as a language acted as a unifying

¹¹ <http://www.pressreference.com/Sw-Ur/Tanzania.html>

force. Later on, the German colonial policy adopted Kiswahili language for inter-ethnic communication and communication between the African population and German colonial administrators.¹²

The union between the islands of Zanzibar and Tanganyika promoted the spread of Kiswahili as the primary language, and the union has had the continuing impact of promoting the Kiswahili language. The policies of the first President, Julius Nyerere, (famously known as Mwalimu, meaning “teacher”) also contributed immensely to the spread of Kiswahili, as he helped establish the language as the official as well as the national language. Kiswahili therefore replaced English as the language of instruction through to the secondary school level, with a strong Kiswahili language department at the University of Dar-es-Salaam, and an equally viable Institute of Kiswahili Research (Taasisi ya Uchunguzi wa Kiswahili, TUKI), which has been incorporated into the university system. However, English still retains a strong presence at all levels in Tanzanian society. This is partly due to the benefit of English as an international language.¹³

7.2.2 *The Press and Law in Tanzania*

Although the Tanzanian constitution, through Article 18, guarantees every Tanzanian the right to freedom of opinion and expression, the Newspaper Act of 1976 allows authorities within the government, including the President, the power to prohibit publications that might be deemed not to be in the nation’s best interest.

The Broadcasting Services Act of 1993 provides that private broadcasters are only allowed to send their signals to 25% of the country. To an extent, this limits private broadcasters, although the government views it as a way of ensuring national cohesion.¹⁴

The Newspaper Act of 1976 (Act No. 3/1976) gives the President of the United Republic of Tanzania powers to prohibit any publication to be imported or printed if he/she finds that it jeopardizes national interest. It also gives the minister responsible for information the power to prohibit the publication of a newspaper, and furthermore provides that it will be an offense if any person sells, prints or distributes a prohibited publication. This Act also licenses print media organizations.

The Broadcasting Service (Act. No. 6/1993) establishes several functions. The commission outlined under Section 6(1) of the Broadcasting Act No. 6/1993 issues broadcasting licenses, and regulates and supervises broadcasting activities. The commission is responsible for standardization, planning and management of the frequency spectrum.

Although in the past the media could not report on news relating to state officials, this has changed, as today the papers report freely. The papers sometimes go as far as discussing democratic principles, but they are more cautious in questioning the election outcomes. Sometimes, however, they will compare one government official to another, but only in a measured way.

The relationship between the media and the state in Tanzania has been occasionally tense because, despite the censorship issues, many papers still expose and criticize political events and personalities. The Tanzanian media has continued to be an important source of information for the society. The Internet is emerging as another important source of information, especially in the major cities: for example, there is a cyber café on almost every street of Dar-es-Salaam.

English-language newspapers from United Kingdom and the United States of America are regularly available in every major town, with most readers being foreign nationals and the elite Tanzanians. There is a large Asian community in Tanzania, which is strongly bilingual in English and Kiswahili, in addition to being fluent in their various ethnic Indian-Pakistani languages, such as Gujarati or Urdu. Their reading preferences remain the local English-language papers and the British and American papers and journals.

¹² <http://www.pressreference.com/Sw-Ur/Tanzania.html>

¹³ <http://www.pressreference.com/Sw-Ur/Tanzania.html>

¹⁴ http://www.tanzania.go.tz/mass_media.html

7.3 Radio and Television

7.3.1 Radio

Unlike other large colonial territories in Africa, such as Kenya, Zambia, and Nigeria, broadcasting was late arriving in Tanganyika due to the presence of a relatively small settler population compared with other territories that had large numbers of settlers demanding a radio station.¹⁵

The development of radio in Tanzania can be traced back to 1951, when a British Broadcasting Corporation (BBC) official proposed establishing an experimental station to produce local programs for a native audience. This led to the founding of Sauti ya Dar-es-Salaam,¹⁶ which initially produced a single one-hour program in Kiswahili each week. The name was eventually changed to Tanganyika Broadcasting Service (TBS) in around 1954.

Soon after independence, the new government saw radio as their best means of linking the villages with the government and motivating people to take pride in their country and to try to make it better. This can be simplified by Nyerere's famous remark that, while others were trying to reach the moon, they were trying to reach the villages using the radio.

The TBS was an independent service, so the newly independent government found it difficult to use TBS to propagate government policies. Therefore, in 1965, TBS was nationalized and its name was changed to Radio Tanzania Dar-es-Salaam (RTD), with the Ministry of Information being the manager. Apart from propagating government policies, RTD also provided entertainment and educational programs to school-going children.

Although RTD did not initially have a wide reach, it had acquired higher power transmitters by the mid 1980s, giving it a good signal across Tanzania. Radio became the main medium of reaching the entire country, with even remote villages being reached by the RTD signal.

During Mwalimu Nyerere's term of office, Tanzania became a one-party state, "not due to dictatorship", but because of what Mwalimu described as the need to promote national cohesion. During the same period, RTD became the main broadcaster. However, things started to change with the adoption of a free market economy. This led to the emergence of a chain of medium wave stations in major towns across the country.

RTD still maintains its long-standing reputation as a public service broadcaster. However, it is also now adapting to meet the commercial challenges of an increasingly competitive media environment. To keep younger listeners from straying too much to foreign stations, RTD is giving more attention to sports and modern music.

RTD is the only radio transmission that is allowed countrywide, alongside the national television network (Televisheni ya Taifa). As mentioned earlier, only 25% of the country receives broadcasts from private stations. Kiswahili is again strongly promoted, but not at the expense of English. The promotion or prominence of Kiswahili is usually at the expense of Tanzania's other indigenous ethnic languages. Kiswahili is not squeezed in between English-language programs: rather there are Kiswahili-language radio stations alongside English-language ones. Almost every adult in Tanzania has a radio. Currently, there are more than 50 radio stations in Tanzania. Some of the current national and regional radio stations on the Tanzanian mainland are shown in Table 39, while Table 40 provides information on the two types of radio services – commercial and non-commercial. RTD was later transformed again, to Tanzania Broadcasting Corporation (TBC).

¹⁵ <http://www.pateplumaradio.com/genbroad/tanzania.html>

¹⁶ <http://www.tbc.go.tz/~tbcgo/about-tbc/background-information.html>

Table 39: Some National and Regional Radio Stations in Mainland Tanzania

Name	Authorized Service Area	Location of Base Station
Radio One	National	Dar-es-Salaam
Radio Free Africa	National	Mwanza
Radio East Africa FM	National	Dar-es-Salaam
Clouds Entertainment	National	Dar-es-Salaam
TBC Taifa	National	Dar-es-Salaam
TBC FM	Regional	Dar-es-Salaam
Radio Kwizera	Regional	Ngara
Radio Tumanini	Regional	Dar-es-Salaam
Passion FM	Regional	Dar-es-Salaam
Radio Kiss FM	Regional	Mwanza
Radio Sauti ya Injili	Regional	Moshi
Radio Maria	Regional	Songea
Radio Uhuru FM	Regional	Dar-es-Salaam
Radio Mwangaza FM	Regional	Dodoma
Radio Imaa FM	Regional	Morogoro
Capital Radio	Regional	Dar-es-Salaam
Times Radio FM	Regional	Dar-es-Salaam
Safina Radio FM	Regional	Arusha
Sibuka FM	Regional	Maswa
Radio 5 Arusha	Regional	Arusha
Radio Ebony FM	Regional	Iringa
Radio Kili FM	Regional	Moshi
Country FM	Regional	Iringa
Classic FM Radio	Regional	Dar-es-Salaam
Magic FM Radio	Regional	Dar-es-Salaam
Radio chemi chemi	Regional	Sumbawanga
Radio Saut FM	Regional	Mwanza

Source: The Tanzania Communications Regulatory Authority (TCRA).

Table 40: Commercial and Non-Commercial Radio Services in Mainland Tanzania

Type	Commercial	Non-Commercial	Total
National Radio	3	2	5
Regional Radio	4	3	7
District Radio	17	18	35
Total	24	23	47

7.3.2 Television

Before 1995, Mainland Tanzania did not have a television station, although people with television sets in some parts of Tanzania could access programs from Kenya and Television Zanzibar (TVZ). Television broadcasting began from Dar-es-Salaam in 1995. But Zanzibar opened its first television station in 1972, the Television Zanzibar (TVZ). TVZ was inaugurated in 1973 and it broadcast in Kiswahili and the English language, and carried both local and international programs.¹⁷ TVZ covers the islands of Unguja and Pemba, and its signal reaches Dar-es-Salaam, Tanga, Bagamoyo and the coastal belt of the Tanzanian mainland, and up to Mombasa in Kenya.

¹⁷ <http://www.jamiiforums.com/habari-na-hoja-mchanganyiko/29107-history-of-television-zanzibar-tvz.html>

Private television stations have mushroomed in urban areas. They transmit local programs and relay internationally broadcast programs from CNN, BBC World News and Deutsche Welle. The stations are in Dar-es-Salaam, Morogoro, Arusha and Mwanza. There is a reasonably wide distribution of television sets. International news outlets like CNN, BBC World News and Al-Jazeera are commonly available on television and are watched avidly. These are the primary sources of international news for the vast majority of Tanzanians.

There are currently about 30 television stations in Tanzania. Table 41 gives a list of some of the regional and national television stations.

Table 41: Some National and Regional Television Stations in Tanzania

Name	Authorised Service Area	Location of Base Station
Independent Television ITV	National	Dar-es-Salaam
Star TV	National	Mwanza
Channel Ten	National	Dar-es-Salaam
TBC 1	National	Dar-es-Salaam
East Africa TV	National	Dar-es-Salaam
Agape TV	Regional	Dar-es-Salaam
C2C TV	Regional	Dar-es-Salaam

Source: The Tanzania Communications Regulatory Authority (TCRA).

With the introduction and enactment in Tanzania of the Electronic and Postal Communication Act No. 3 (2010), the electronic communication industry has experienced a remarkable achievement of growth. The main objective of the Act is to put in place a comprehensive regulatory framework for electronic and postal communication services. This is achieved through the TCRA. The law addresses a number of important issues, including, among others, the establishment of National Computer Emergency Response Teams. The role of these teams is to ensure recognition of Tanzania's pride and identity in cyberspace by providing proper oversight of the dot-TZ country code top-level domain, and the migration from analogue to digital broadcasting. Other objectives of the Electronic and Postal Communication Act are shown in Box 3:

Box 3: Other Objectives of the Electronic and Postal Act

To keep abreast of the law with changes in the communication sector.	To establish a Computer Emergency Response Team to advise and handle cyber threats.
To consolidate the Broadcasting Services Act, Cap. 306 and the Tanzania Communication Act, Cap. 302.	To establish a National Consultative Spectrum Committee.
To put in place a legal framework for convenience.	To establish a new postal addressing system or Postcode.
To establish a Central Equipment Identification Register.	To introduce Digital Broadcasting.
To introduce registration of SIM cards.	To enhance penalties on any act or omission concerning offenses related to electronic communications, SIM card and postal communications and other related offenses.
To regulate competitive practices and conduct in the electronic communication and postal sectors.	

The TCRA is a quasi-independent government body responsible for regulating the communications and broadcasting sectors in Tanzania. It was established under the Tanzania Communications Regulatory Authority Act No. 12 (2003), which merged the Tanzania Communications Commission and the TBC. The Authority is a statutory body established as part of the government policy reforms in the communication sector, with the aim of improving the availability of the info-communications services to the public as well as allowing new players into the market.

Another recent phenomenon in Tanzania in the development of television is digital broadcasting. The introduction of digital technology can be traced to the 1990s, when it was introduced in Europe. However, it was not until 1997 that the Digital Terrestrial Television Broadcasting (DTTB) standards were fully achieved through the process of migration from analogue to digital broadcasting. Since then, other services such as voice, data, and the Internet have migrated from analogue to digital technology.

In Tanzania, the migration process from analogue to digital was initiated in 2005 by issuing the First Public Consultation Document on how digital broadcasting should be managed, regulated and implemented. In 2006, the Second Public Consultation Document was issued on the need to establish Multiplex Operators. The Ministry of Communication, Science and Technology, the Ministry of Information, Culture and Sports and the TCRA are responsible for this migration. The TCRA regulates the ICT, broadcasting and postal sectors under the umbrella of two ministries.

7.4 Film and Music

In Tanzania today, the film and music industries are two of the most successful and well-developed examples of creative industries. The local music industry, for example, has carried with it some aspects of Tanzanian culture, with most musicians producing songs with local and traditional tunes, which are cultural in nature. It is important to note that, in Africa, culture is central to societal development and, if well harnessed, could spur economic growth and development.

If culture is used as a dynamic process, it can become a tool for social change and can be used for the creation of awareness, behavior modulation, advocacy, therapy, and the mobilization of social support. Culture and development may be defined as a framework in which cultural factors and actions influence the process of development at local levels. This has impacted greatly on the music and film industries in Tanzania, as many consumers of music or film have a tendency to prefer locally produced songs or films. In contrast to the past, when local radio airwaves were flooded with foreign music, local stations are today awash with locally produced songs and films, which are becoming popular with consumers. This aspect of culture is therefore sold as a commodity in the market related to creativity, and so is a boost to economic growth.

The power of culture and the creative industries cannot be underestimated. These industries have contributed to remarkable developments elsewhere in the world. A case in point is how theatre contributed to the fall of the Marcos regime in the Philippines and the Samoza regime in Nicaragua.

7.4.1 The Film Industry

The film industry has become a profitable venture in Tanzania, although it is still working with small budgets and still needs to be upgraded in terms of quality and profitability through increasing investments in the sector. Some of the factors inhibiting the growth of the film industry in Tanzania are lack of foreign exchange, foreign control of distribution, and the fact that domestic markets are too small to effectively demand the film products and support the industry.

The film industry in Tanzania can be traced back to the 1930s, when Tanzania was chosen as the site for the International Missionary Council's Bantu Education Kinema Experiment (BEKE), which was a tribute to the British faith in the power of film as an agent to increase the literacy levels of Africans. The first cinema hall was opened in 1929. However, there was serious censorship of what was consumed by Africans, as the colonial government was very concerned that unrestricted access could lead to a rebellion.

Shortly after, BEKE, the colonial government, through the colonial film unit, started to produce educational, entertainment and propagandistic films. At around the same time, mobile cinema units were introduced and toured the whole country, showing newsreels and films supplied by the Central Office of Information (COI) in London.

In 1948, the film unit, which was a governmental unit responsible for documenting important government events, started local production of films. This then led to the establishment of the Tanzania Film Company (TFC) in 1968. The TFC was replaced by the Audiovisual Institute (AVI) formed in 1974, which continued to play the role of a government documentary unit. AVI also produced educational documentaries, which were used in educational institutions.^{18,19}

¹⁸ <http://afraf.oxfordjournals.org/content/88/352/389.extract>

¹⁹ <http://www.filmbirth.com/tanzania.html>

7.4.2 The Music Industry

In the past few years, the Tanzanian music industry has seen many changes. The changes have brought a mix of influences from other countries, along with the original feel of local musical traditions. Tanzania boasts of being home to some of the best artists in East Africa.

The local musicians have developed a new style, christened “Bongo Flavor”, commonly known as “Bongo fleva”, which is a blend of all sorts of melodies, beats, rhythms and sounds. Tanzanian music consumers have developed a preference for products from their local artists, who sing in Kiswahili.

The first music craze in Tanzania can be traced to the early 1930s. This is when Cuban Rumba was widespread. This period also saw young Tanzanians organizing themselves into dance bands, like the Dar-es-Salaam Jazz Band, which was founded in 1932. Bands like Morogoro Jazz and Tabora Jazz were formed during the same period.

After independence in 1961, the state system that was set up led to state-owned bands like the National Union of Tanganyika Workers (NUTA), which led to the formation of the NUTA Jazz Band (currently known as Msondo Jazz Band or Bana Mwambe), the Dar-es-Salaam District Council (DDC) Jazz Band, the Usafiri Dar-es-Salaam (UDA), a public transport company, Jazz Band, the Prisons Department (Magereza) Jazz Band, and many more. During this period, the musicians were paid salaries plus a percentage of the gate collection, and worked for various government departments.

Over the years, the music industry in Tanzania has evolved to a mix of all genres of music. The industry has also seen the mushrooming of hip-hop and reggae artists producing these genres in the Kiswahili language. This has led to Tanzanian artists being celebrated outside the country.²⁰ Tanzanian music has also been influenced by music from the Democratic Republic of Congo, which has contributed to the development of mixed-genre music.

7.5 Copyright Office, Collective Management Organization and Other Copyright Organizations

7.5.1 Copyright Society of Tanzania (COSOTA)

In Tanzania, there is only one joint Copyright Office and Collective Management Organization. This is COSOTA, which is a statutory body set up by the Tanzania Government under the Ministry of Industry and Trade. It was established under Section 46 of the Copyright and Neighbouring Rights Act, No. 7 (1999) and is mandated to administer the Copyright Act.

The functions of COSOTA are:

- Promotion and protection of the interests of authors, performers, translators and publishers, and in particular to collect and distribute any royalties or other remuneration accruing to them in respect of their rights.
- Maintenance of registers of works, productions, and associations of authors, performers, translators, producers of sound recordings, broadcasters and publishers.
- Provision of publicity on the rights of owners and giving evidence of ownership of these where there is a dispute or an infringement.
- Printing and publishing or circulating any information, reports, periodicals, books, pamphlets, leaflets, or any other material relating to copyright, expressions of folklore and neighboring rights.
- Advising the Minister on all matters under the Act.

The above functions mean that COSOTA was set up to help in collectively administering the rights of authors, performers, producers of sound recordings and broadcasters. The Society acts as a link between the owners of the rights on the one hand and the users of their works on the other, hence the authority of the Society to collect royalties on behalf of the rights owners.

²⁰ http://en.wikipedia.org/wiki/Music_of_Tanzania

The efforts of COSOTA are geared towards ensuring that the owners of the rights receive adequate remuneration from their efforts. Therefore, the aims of the Society are:²¹

- To represent and defend the interests of its members in Tanzania and abroad.
- To administer on an exclusive basis within Tanzania such economic rights of its members as the Society may determine.
- To collect fees from users of the works on behalf of its members and distribute those fees among the members.
- To help in the preparation of standard forms of contract for the benefit and use of its members.
- To foster harmony and understanding between rights owners and users of their works as are necessary for the members' economic rights.
- To make reciprocal agreements with foreign societies for the issue of authorizations in works and for the collection and distribution of copyright fees deriving from those works.

COSOTA has also given the mandate to the Reproduction Rights Society of Tanzania (KOPITAN) to deal with reprographic rights in Tanzania. KOPITAN has been funded by KOPINOR and NORCODE since 2009.

The copyright law is currently (i.e. at the time of this study) being amended and the separation of COSOTA and the Copyright Office is among the issues being considered.

Professional organizations also exist, the objectives of which include overseeing the development of their sectors and promoting the interest of their stakeholders. However, these are not collective management organizations. These professional organizations are discussed briefly below.

7.5.2 Book Development Council of Tanzania (BAMVITA)

The Book Development Council of Tanzania (BAMVITA) was established in 1999 with the aim of coordinating and stimulating the activities of all stakeholders in the book industry of Tanzania.²² The intention was to ensure production of high-quality books in Tanzania.

Thus, the objectives of BAMVITA are:

- To support, encourage and liaise with associations involved in the development of a reading culture and books, and urge for the formulation of such associations where there is a need.
- To formulate plans and policies regarding the development of the book industry, and to present the plans to the government and private stakeholders as a means of coordinating the efforts of all concerned parties.
- To improve performance in the book sector by identifying training needs and facilitating the provision of such training.
- To establish and maintain a data bank, and issue publicity materials on the Tanzanian book industry.
- To encourage and support the production and provision of childhood reading materials throughout Tanzania.
- To promote books, literature and reading through exhibitions, fairs, children's rural outreach reading programs and children's reading tents, and literary and book prizes.
- To promote gender-balanced literature.

²¹ For further information about COSOTA visit: <http://www.cosota-tz.org/frameset-t5.html>

²² <http://www.bamvita.or.tz/about.asp>

For the purpose of achieving the above objectives, the functions of BAMVITA are outlined as being:

- To coordinate the various activities of the Council member associations, institutions and organizations, and to lobby the government for action and support.
- To promote the book industry through book fairs, book and library weeks, literacy and literary awards, advertising and other activities.
- To collect information and data on all aspects of the book sector through research, consultation and periodic sector surveys, and processing and disseminating such information through reports, publications, news releases on book activities, news bulletins to council members and others in the book sector, catalogues, and brochures.
- To regulate practice in the book sector by standardizing codes of ethics of member associations, institutions and organizations by publicizing violations of copyright and other laws relating to the book sector, and seeking legal action when necessary and possible. Also to improve professional skills by encouraging the establishment of training facilities, courses and seminars to upgrade the personnel in all facets of the book sector.
- To support the development of suitable infrastructures in order to encourage indigenous authorship, editing, illustrating, printing and publishing, and to provide opportunities for local book production.

7.5.3 Booksellers Association of Tanzania (BSAT)

BSAT was established in 1964 and became active when a group of experienced booksellers met and shared their experiences in 1987. It was officially re-registered by the registrar in 1988.²³

The vision of BSAT is to encourage, enhance and sustain a reading culture in the country through a self-sustainable bookselling trade. The mission of BSAT is to improve access to books in Tanzania by developing and organizing Tanzanian booksellers. BSAT is a non-profit making organization of individual booksellers across Tanzania.

7.5.4 Media Council of Tanzania (MCT)

The Media Council of Tanzania (MCT) is an independent, voluntary, non-statutory self-regulatory body established by the media fraternity of Tanzania. The MCT was established on June 30, 1995, at the Journalists and Stakeholders' Convention held in Dar-es-Salaam. It began work on May 22, 1997, when it was officially registered under the Societies Ordinance (1954).²⁴

The mission of the MCT is to create an environment that enables a strong and ethical media that contributes towards a more democratic and just society, while the vision is to push for a democratic Tanzania with a free, responsible and effective media.

The general objective of the MCT is to assist and maintain the freedom of the media in Tanzania. Box 4 lists the specific objectives of the MCT.

²³ <http://.kabissa.org>

²⁴ www.mct.or.tz/mediacouncil

Box 4: Specific Objectives of the MCT

To promote, assist, safeguard and defend the freedom of the media and allied forms of public communication in Tanzania.

To oversee that journalists, editors, broadcasters, producers, directors, proprietors and all those involved in the media industry in Tanzania, adhere to the highest professional and ethical standards.

To receive and conciliate, mediate and or arbitrate upon complaints from the public and among the media against alleged infringements of the Code of Ethics.

To encourage development of the media profession in Tanzania by undertaking activities including, but not limited to, training of journalists, overseeing press club development, and to conduct various media freedom campaigns, seminars, workshops and/or symposia.

To maintain a register of developments likely to restrict the supply of information of public interest and importance, keep a review of the same, and investigate the conduct and attitude of persons, corporations and governmental bodies at all levels, towards the media, and make public reports on such investigations.

To involve members of the public in the work of the Council and constantly and reasonably keep them informed about its operations, views and decisions.

To promote and defend the interests of readers, viewers, and listeners.

To promote gender sensitivity, equality, equity in and balanced reporting and dissemination of information.

To raise funds for the purposes of the Council on such terms as are compatible with the autonomy of the Council and within the spirit of its mission and vision.

To publish papers, journals, newsletters and other materials to achieve these objectives.

To do such other things as may be in the interest of the Council, the media and the public as may be necessary to achieve these objectives.

8. Conclusions and Recommendations

Copyright-based industries in Tanzania make a considerable contribution to the national economy, ranging between 3% and 4.6% of the total GDP, and between 4.5% and 5.7% of the total national employment, as is exemplified by their performance in the period 2007-2010. On the basis of GDP, the performance of these industries in the same period was equal to or better than the hotels and restaurant sector and the mining and quarrying sector. In fact, the core copyright industries alone contributed more than the mining and quarrying sector in 2009 and 2010 (3.2% and 2.8% respectively), underscoring the importance of the copyright-based industries to the economy of Tanzania.

In terms of employee productivity, the core copyright-based industries exhibited impressive productivity, outperforming all other sectors considered except the agricultural, hunting and forestry sector, depicting the significant contribution of these industries to the national economy. However, in terms of labor productivity, the copyright-based industries combined only outperformed the fishing and the hotels and restaurants sectors.

Tanzania's copyright-based industries showed a large negative trade balance, which was mainly a result of the interdependent copyright industries, implying that copyright industries have a relatively high import component of interdependent copyright categories of goods, which reduces their overall added value. This foreign trade imbalance can be corrected through appropriate and operational policy frameworks.

Copyright-based industries in Tanzania face several challenges that require attention. Some of these are specific to Tanzania, while some generally affect other countries, especially those in the developing world. As demonstrated by the growth of GDP between 2007 and 2010, the copyright industry sector is one of the rapidly growing sectors in Tanzania.

As in many other countries, the value of this sector is, however, not well recognized as an important driver for national development. It is important, therefore, to promote this recognition. In addition to the government's inadequate interest in providing all the required data to determine the true contribution of this sector, the rapid growth rate of the industry has also made it difficult for the government to keep track of its activities. Therefore, for the most part, copyright industries in Tanzania have been operating informally, and much of their contribution is not reflected in the government tax books. This implies that the industry's contribution to the GDP is likely to be higher than that computed from the available data.

Databases on the contribution of creative industries in Tanzania, similar to Kenya, for which data are available, are highly aggregated. Additionally, the composition of copyright-based industries is not well harmonized in the Tanzania national accounts. This is a possible source of inaccuracy in estimations of the contribution of these industries. In order to circumvent this problem, Tanzania's classification system should correspond to ISIC classifications. Further to this, it would be useful to coordinate and standardize the collection of data on copyright-based industries, and indeed any other data, among major government departments such as the NBS and TRA.

Another impediment to the development of creative industries is piracy, which is normally considered to pose a serious challenge in developing countries. Those involved in the business of creative industries are said to frequently evade taxes, either in the effort to avoid exposing themselves so that they may protect their products from piracy because of the absence of adequate IP protection, or because their businesses operate illegally or stock pirated materials, and would be reluctant to make any disclosures. These factors can lead to poor or no documentation, and therefore inadequate databases.

Despite the challenges facing copyright-based industries in Tanzania, the economic contribution of these industries is noteworthy. Tanzania's performance regarding these industries compares very well with its neighbor, Kenya. Indeed, other than the contribution to GDP, Tanzania's industries generally performed better than Kenya's on the basis of employee income and employee numbers, which were actually greater proportionally than in several countries in Europe, Asia and the Americas.

To strengthen and streamline the activities of the copyright industries, relevant policies should be put in place and existing policies should be reinforced to make them more effective in improving the operational efficiency

of the industries. This will, in turn, encourage the development of the industries, through creating an enabling environment for the government to harness the benefits that they provide, which will subsequently lead to a greater recognition of their value in the creation of wealth.

This study is among the few to have been completed in the African continent. It has captured the dynamism of copyright-based industries in Tanzania, albeit over a short period of four years. This calls for regular and consistent monitoring and evaluation, given the fast growth rate of these industries.

9. Appendices

Appendix I: Sample Questionnaires

1. Consumer (Household) Survey Questionnaire

1. Date of interview:/...../2011.
Questionnaire No:
2. Name of enumerator:
3. Name of respondent:
4. Occupation:
5. How much did you spend in total purchases last year? (TSHs)
6. How much did you spend in purchasing these products/services last year? (TSHs)

Item	Price (TSHs)
Textile Products	
Leather and Related Products	
Wearing Apparel and Dressing Products	
Rubber and Plastic Products	
Glass Products	
Wood and Cork Products Except Furniture	
Furniture	
Jewellery and Related Articles	
Clothing and Footwear	
Structural Clay Products	
Household Appliances, Articles and Equipment	
Pottery, China and Earthenware	
Hardware, Paints and Glass	
Museum Activities and Preservation of Historical Sites	
Other Retail Sales in Specialized Stores	
Botanical and Zoological Gardens and Nature Reserves	
Washing and Dry Cleaning of Textiles and Fur Products	
Engineering, Architectural and Technical Services	
Totals	

2. *Copyright Industry (Activity) Survey Questionnaire*

Industry:

1. Date of interview:/...../2011.

Questionnaire No:

2. Name of enumerator:

3. Name of respondent:

Designation in business/company/organization:

4. Name of organization/business/activity/individual

5. Location of the business:

6. Sex of the respondent:

(1) Male

(0) Female

7. When was your business/company/organization established?.....

8. Are you a member of any association/society? If yes, list them:

.....

.....

9. How much did you make in sales last year?

10. What was the number of employees and their wages in your business/company/organisation last year?

Number of employees:

Total salaries/wages (TSHs.):

11. How much money did you pay as Value Added Tax last year? (TSHs)

12. Do you know of any person who is involved in a similar activity? If yes, fill in the table below (Use separate sheet if list is long):

Producer	Location

Appendix II: Table of Performance of Copyright Industries in Tanzania, 2007-2010

Copyright Industries	Gross Domestic Product (GDP) ²⁵		Employee Incomes		Employee Numbers	
	Million TZS	%	Million TZS	%	People	%
Year 2010						
Core copyright industries	445,504,374,830	2.797	20,742,872,602	1.200	20,079	2.570
Interdependent copyright industries	218,258,758,647	1.370	51,194,690,617	2.962	16,931	2.168
Partial copyright industries	580,788,572	0.004	58,383,139	0.003	1,339	0.171
Non-dedicated support industries	16,646,030,407	0.104	5,045,498,049	0.292	5,982	0.766
TOTAL COPYRIGHT INDUSTRIES	680,989,952,456	4.275	77,041,444,407	4.457	44,331	5.674
Total national economy	15,930,753,115,599	100	1,728,620,541,470	100	781,266	100
Year 2009						
Core copyright industries	477,083,298,840	3.217	28,272,365,169	1.757	18,616	2.560
Interdependent copyright industries	183,900,961,799	1.240	48,294,231,725	3.000	15,589	2.144
Partial copyright industries	602,576,873	0.004	65,035,416	0.004	2,077	0.29
Non-dedicated support industries	14,871,486,986	0.100	3,842,755,263	0.239	4,646	0.639
TOTAL COPYRIGHT INDUSTRIES	676,458,324,498	4.561	80,474,387,573	5.0	40,928	5.633
Total national economy	14,828,345,000,000	100	1,609,000,000,000	100	727,202	100
Year 2008						
Core copyright industries	443,756,050,480	3.215	27,387,048,990	1.829	19,991	2.953
Interdependent copyright industries	150,640,635,713	1.091	25,917,414,455	1.731	11,746	1.735
Partial copyright industries	1,128,952,495	0.008	89,982,242	0.325	2,081	0.307
Non-dedicated support industries	10,671,127,425	0.077	2,385,263,172	0.159	3,097	0.456
TOTAL COPYRIGHT INDUSTRIES	606,196,766,113	4.392	55,779,708,859	3.724	36,915	5.454
Total national economy	13,801,921,000,000	100	1,497,657,200,000	100	676,880	100
Year 2007						
Core copyright industries	255,098,812,610	1.980	14,968,966,326	1.071	12,247	1.939
Interdependent copyright industries	129,647,192,889	1.001	16,792,895,234	1.201	11,920	1.887
Partial copyright industries	253,061,249	0.002	20,285,051	0.001	2,077	0.329
Non-dedicated support industries	6,636,468,597	0.052	1,393,247,776	0.100	1,958	0.310
TOTAL COPYRIGHT INDUSTRIES	391,635,535,345	3.043	33,175,394,387	2.373	28,202	4.464
Total national economy	12,881,163,000,000	100	1,397,763,464,760	100	631,732	100

²⁵ GDP and employee income in constant prices.

The Economic Contribution of Copyright-Based Industries in Trinidad and Tobago





Potential and Policies for Economic Transformation

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Acronyms

ABC	Association of British Calypsonians
ADR	Alternate Dispute Resolution
ASCAP	American Society of Composers, Authors and Publishers
ASYCUDA	Automated Systems for Customs Data
BMI	Broadcast Music Inc.
CARICOM	Caribbean Community
CCL	Caribbean Copyright Link
CISAC	Confédération Internationale des Sociétés d'Auteurs et Compositeurs
CMO	Collective Management Organisations
COMTRADE	United Nations Commodity Trade Statistics Database
COTT	Copyright Music Organisation of Trinidad and Tobago
CPC	Central Product Classification
CSO	Central Statistical Office
GDP	Gross Domestic Product
GEMA	Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte
IFRRO	International Federation of Reproduction Rights Organisations
ISIC	International Standard Industrial Classification of All Economic Activities
ITC	International Trade Center
IPRS	Indian Performing Rights Society
NALIS	National Library and Information Systems Authority
NCBA	National Carnival Bands Association
NGO	Non Governmental Organisation
RRO	Reproduction Rights Organisation
SACEM	Société des Auteurs, Compositeurs et Editeurs de Musique
SNA	System of National Accounts
SUT	Supply and Use Tables
TAPA	The Tobago Academy of Performing Arts
TATT	Telecommunications Authority of Trinidad and Tobago
THA	Tobago House of Assembly
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
TTBPA	Trinidad and Tobago Broadcasters and Publishers Association
TTCO	Trinidad and Tobago Copyright Organization
TTFC	Trinidad and Tobago Film Company
TTIPO	Trinidad and Tobago Intellectual Property Office
TTRRO	Trinidad and Tobago Reprographic Rights Organization
TTSNA	Trinidad and Tobago System of National Accounts
TSTT	Telecommunication Services of Trinidad and Tobago
TUCO	Trinbago Unified Calypsonians Organization
UK CDPA	Copyright, Designs and Patent Act 1988 of the United Kingdom
UNSD	UN Statistics Division
USC	University of the Southern Caribbean
UTT	University of Trinidad and Tobago
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Office
WPPT	WIPO Performances and Phonograms Treaty
WTO	World Trade Organization
YTC	Youth Training Centre

Abstract

This study measures the contribution of copyright to GDP, employment and trade in Trinidad and Tobago. It employs a sector-wide collaborative research process. The study seeks to shed light on the policies that might best promote the optimal use of the opportunities generated by growth of the copyright sector in the Trinidad and Tobago economy.

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1. Executive Summary

Industries based on copyright and related rights have a considerable impact on national economies. National studies in many countries reveal that these industries are major players in terms of their contribution to a country's Gross Domestic Product (GDP), employment and foreign trade. This study probes the extent to which a *similar claim can be made for the economy of Trinidad and Tobago*, including whether the copyright sector displays characteristics that offer a long-term promise of moderating the effects of random shocks to the energy sector and the fiscal space of Trinidad and Tobago. The general aim is to update the indicators and framework for policy design, implementation, monitoring and evaluation that might give the copyright industries an optimal place in transforming the structure, growth performance, and the internal and external balances of the economy. The results should also provide a basis for other applications, such as determining the value of the copyright and other capital assets and their implications for the extension of the current term of applicable copyright laws. The measures provided are economic in focus, but it should be noted that copyright-based outputs, such as music and art, do have significant non-economic benefits and it is worthwhile for stakeholders to consider these when making policy.

The copyright industries are defined as 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). 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 sale of a product or service, or sale of the economic rights themselves. WIPO (2003) classifies the copyright-based industries into four broad categories convenient for statistical measurement: (i) Core Copyright Industries, which exist to create, produce and/or distribute copyright materials; (ii) Interdependent Copyright Industries, which are engaged in the production, manufacture and sale of equipment that facilitate copyright activity; (iii) Partial Copyright Industries, whose main activities may not be copyright-based but include a significant component of products and services that are secured by copyright, and (iv) 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 spill-over effects of the Core, Interdependent and Partial Copyright Industries. They deal in wholesale and retail, general transportation, telephony and the internet.

The Central Statistical Office of Trinidad and Tobago, a major stakeholder in the study, provided direct access to the national accounts and the results of the continuous sample survey of the population. This allowed the adoption of a satellite accounting methodology yielding results that are consistent and directly comparable with the country's estimates of GDP, employment and trade: that is, the results estimate the same variables and have the same basis and form as those of any other sector report in the system of national accounts of Trinidad and Tobago – gross sales (output) and intermediate costs, the difference of which yields the value added or GDP at market prices; the compensation of employees; consumption of fixed capital; operating surplus; taxes on production and indirect taxes – which sum to the GDP at market prices. Intermediate costs are the sum of payments for materials, electricity and energy, intermediate services, and subcontracts. The GDP at basic prices is the sum of the compensation, the consumption of fixed capital, and the operating surplus. Constant price estimates are made at the same time, in this case with 2000 as the base year. The satellite account extracts and recombines details from the existing accounts and supplements them with information not normally available to, or found in, the System of National Accounts (SNA), for reasons of coverage. For example, the accounts for steelbands are not normally found in the national accounts, nor are data on the production and sale of steelbands. Estimates are supplied for 2000, 2007 and 2011. Estimates for 2011, as for any current year in national accounting, involved forecasts of prices and output for at least the last quarter of the year: in this case, for the third and fourth quarters. They are provisional estimates.

An important basis of the method was the conduct of two surveys that yielded copyright factors and interpretations. One survey, a standard establishment survey, obtained opinions and evaluations of how the industry works from best-practice copyright practitioners in the national environment, along with initial suggestions for choosing the applicable copyright factors and practical suggestions as to how the industry can be supported to become a global player in the copyright sector. The other survey, a supplementary copyright sector survey, obtained further detailed financial data and information on activity rhythm, as well

as opinions, as a basis for characterising copyright and other industry factors. The questionnaires used can be made available. Separate data were collected on employment from the six rounds of the Continuous Sample Survey of the Population, and on prices from the monthly consumer price index surveys.

The resulting estimates are that, despite the overwhelming dominance of the petroleum industry, copyright-based industries contributed 4.8% of the GDP and 5% of all jobs in 2011, as compared to 3.6% and 3.9%, respectively, in 2000. These estimates are broadly in line with the global trends in 2011, which average 5.5% of GDP and 5.8% of jobs. The sector also displayed net real growth over the period 2000 to 2011 with respect to the use of intermediates and capital, and a growing capacity to employ finance and retained earnings to fuel expansion over time through growth of the profit share of value added. The growth of employment of intermediates is also a very strong measure of the sector's growing tendency and capacity to generate externalities by employing a variety of forms of domestic capital. The growth in the profit share was perhaps engineered partly by a falling average annual real wage in the sector – an aspect that is a fruitful area for further study. With respect to trade in copyright output (goods and services), the copyright sector was a net positive contributor to the flow of foreign exchange, yielding about US\$32 million of foreign exchange in 2000, US\$35 million in 2007, and US\$50 million in 2011.

The star performer in the copyright sector was radio and television, which experienced explosive growth in the last decade and is also now the largest segment of the core copyright sector and the copyright sector generally. Important contributors to the positive trade performance are steelbands (music) and the export of steelpans; radio and television; and advertising. Some sub-sectors run a trade deficit: mainly press and literature, paper, and furniture and related design. Interestingly, music and related video and sound are small but positive contributors to both output and the trade surplus.

To meet the requirements of a development planning framework, the policy model took the form of an econometric model of the profits-prices-productivity nexus, rather than an input-output-based model, which is inherently about the cyclical dynamics of variable effective demand, since the inter-industry matrix would be fixed and the role of import productivity in changing these parameters would be difficult to incorporate in the limited scope of this study. The parameter estimates for the policy model, as well as the data on import productivity, show that the main basis on which the sector is likely to be generating its advantages is a rising share of domestic capital in the total capital used, especially through a high ratio of demand for intermediates through the inter-industry system. This ratio has the biggest impact on both the profit share and the productivity of imports, which then transmit positive impacts to labour productivity. The implications are that this should be the focus of policy interventions. As it turned out, the policy suggestions of the successful players in the industry also focused on investment in domestic capital and skills. The general principle into which the copyright sector fits is that competitiveness, industrial restructuring, foreign exchange saving and development are achieved mainly by growing domestic capital faster than other characteristic properties of the economy. A strategy such as this promotes investment in domestic capital as one of the primary instruments to be adjusted in responding to deficiencies in past levels of investment for development.¹ This approach to policy is not strictly consistent with trade-restrictive approaches to support for the copyright sector. The evidence suggests that the copyright sector of Trinidad and Tobago can thrive and grow in a competitive global environment, without trade restrictions, partly by taking advantage of the expanded access to a global market in the relatively free trading context. Moreover, growth of domestic capital investment stimulates growth of productivity and profitability, partly by growing complementary investment in imported capital.

Finally, the results point to the likelihood that a strong push to good governance is a necessary component of the policies required to take advantage of the potential of the copyright sector. There is a sense in which copyright industries are themselves democratising industries, in that a large segment of the industry wields substantial public education power. The presence of highly significant parameters for the quadratic in the domestic capital share of the capital employed, and the general presence of significant non-linearities in the model, point to the existence of multiple optimal policy paths, choice among which requires reliance on the will of the people. This might mean that, in a complex society such as Trinidad and Tobago, the single largest development project needed is one which develops systems of governance that promote reliance on the will of the people.

¹ The main instrument is normally thought to be the rate of interest, but a choice between these two cannot be made in this framework.

2. Introduction

Industries based on copyright and related rights have a considerable impact on national economies. National studies in many countries have revealed that these industries are major players in terms of both their contribution to a country's Gross Domestic Product (GDP) and their contribution to employment and foreign trade. This study will probe the extent to which *a similar claim can be made for the economies of Trinidad and Tobago*, separately and collectively.

However, where possible in the estimation process, light will also be shed on the national and regional market structures of the copyright sector, as well as on: the value chain; demand and supply; the labour market; the policy framework; support from public and civil sector (including the role of collective management organisations and other copyright-related organisations); terms of trade and cross-border issues; financing mechanisms; and implications of the digital environment, among others. Data on these will be used to clarify the meaning of the data on GDP, employment and trade.

The general aim is to update the indicators and framework for policy design, implementation, monitoring, and evaluation that might give the copyright industries an optimal place in transforming the structure, growth performance, and internal and external balances of the economies of Trinidad and Tobago, separately and jointly. The results should also provide a basis for other applications, such as determination of the value of the copyright and other capital assets, and their implications for the extension of the current term of applicable copyright laws.

The measures provided are economic in focus, but it should be noted that copyrighted output such as music and art do have significant non-economic benefits and it is also worthwhile for stakeholders to consider these when making policy.

2.1 Structure of Study

This Interim Report has eight sections, including this Introduction (Section 2). Section 3 provides a review of the copyright regime underlying the copyright-based industries, including an understanding of the law and its relationship to the measurement of the contribution of copyright-based industries to the economy. Section 4 gives a very short summary of the methods used, while Section 5 provides a summary background to the economy, emphasising mainly the link between the balance of trade, the government budget balance and the strategy of measurement and evaluation. Section 6 extracts details from the recently completed profiles survey, carried out to form a picture of the way the copyright sector works. Section 7 documents the estimates of the contribution of copyright to GDP, employment and trade, where employment refers to all broad factors of inputs – labour, capital and imported inputs – as well as intermediate capital.

Section 8 first presents the copyright policy model of the nexus of profits and productivity derived from the Supply and Use Tables (SUT) 2000. In particular, the section uses the SUT 2000 cross-industry accounting details to construct a cross-industry policy model linking a central trade outcome – the rate of foreign exchange savings through the production system – to profits, and also estimates the role of the structure of capital in that context. Thus, it estimates the capital-structure elasticity of foreign exchange savings through the production system. The central finding is an elasticity of 2.02, which is to say that, for each 1% improvement in the structure of capital that policy can engineer through the cross-industry reallocation of resources, the economy will tend to experience a 2% improvement in the rate of foreign exchange savings through the production system. The principal characteristic of the copyright sector turns out to be that it creates capital as intellectual property, and uses this as its main lever to affect competitiveness. In doing so, it transforms the capital structure through inter-industry flows as well as in final form. In particular, it raises the share of domestic capital relative to the total capital used, even if the latter is growing rapidly. This outcome is used to identify the general strategy of development, as well as to interpret and prioritise the policy suggestions of the respondents in the profile survey. Even when viewed in comparison with all sectors of the economy, the results favour giving priority to investment in sectors such as software and databases, the literary arts and new media, works of mas, music, motion picture, video, and such capital-creating arts. Section 9 summarises the findings.

3. Copyright Law and Measurement of the Trinidad and Tobago Copyright-based Industries

In this section, we provide an overview of copyright law that underpins the copyright and related rights-based industries, including their structure, and collective management to enforce the legal provisions.

3.1 Definition of Copyright

Copyright is the legal right associated with the ownership of an intellectual property that gives authors and other creators the exclusive right to print, distribute and copy literary, artistic, musical and dramatic works. The rights are exclusive rights of ownership for a defined period of time and, subject to certain limitations and permitted exceptions, exclusive rights to make, authorise, or prohibit certain uses of their works. Examples of such exclusive rights are: the right to control the making of copies in whatever manner or form of the work ('the right of reproduction'); the right of communication to the public in various ways (public performance, broadcasting, online transmission, etc.); and the right to adapt, arrange, translate or make other modifications to a work. These are basic economic rights: in other words, rights which have a pecuniary value and, when commercially exploited, generate royalties or 'rent'. Copyright laws of some countries (e.g., Trinidad and Tobago) also provide for a right of distribution,² which is the right of the author/creator to make, authorise or prohibit the distribution to the public of copies of her work by sale, rental or lending. Another economic right specifically granted in national copyright laws (e.g., Trinidad and Tobago³) is the right to import copies of a work into the relevant country.

The exclusive rights in a work are automatic. Unlike other areas of intellectual property law (for example, patent or trademark), it is not a condition for protection that the copyright work is registered or that any other act is undertaken. The right arises as soon as the work is created or expressed in some tangible medium. In some countries (for example, the United States of America) copyright registries exist, but they are usually set up for purposes other than for copyright protection (e.g., proof of the existence of specific works, providing a presumption as to the ownership of copyright in the work, or for entitlement to statutory damages in litigation for copyright infringement).

Copyright works can either be original or they can be derivative in the sense of 'second-hand' works. Derivative works consist of two main categories. One category consists of translations, arrangements, adaptations or other transformation of original works, whilst the other category comprises compilations and anthologies. Trinidad and Tobago's copyright law is unique in that it provides for a third category of derivative works, namely 'works of mas'.⁴ In order to be accorded copyright protection, derivative works themselves have to be the results of creative effort. Furthermore, copyright protection of a derivative work is without prejudice to the protection of the works on which the derivations are based.

The term 'related rights' refers to the rights of performers (actors, singers, musicians, dancers, etc., who do not necessarily create but perform copyright-protected works), the producers of phonograms (i.e., sound recordings), and broadcasting organisations. The rights of the beneficiaries of related rights (i.e., performers, record producers and broadcasters) are similar in nature to those granted to creators of literary and artistic works and also last for a limited period of time.

The other set of rights which a rights holder can have are known as 'moral rights'. These rights always belong to the individual creator or author and can never be transferred to a third party. Moral rights are of two sorts: the *right of paternity* and the *right of integrity*. The right of paternity refers to the obligation which a user has to associate the author's name (real or pseudonymous) with her work, while the right of integrity refers to the obligation of users or third parties not to tamper with or mutilate the work, or do anything with it that would bring dishonour to the author.

² Chapter 82:80 of the Laws of Trinidad and Tobago, s.8 (1) (d)

³ *Ibid* s. 8 (1) (e)

⁴ *Ibid* s. 6 (1) (c)

3.1.1 *The History of Copyright Law*

Copyright law had its genesis in 18th century Europe, with the abolition of the system of privileges granted by sovereigns to book publishers, who were given an exclusive right to print books. Copyright law then developed along two separate but similar legal and philosophical approaches: the 'Anglo-American' and the 'Continental European'. The underlying philosophical base for the Anglo-American 'copyright' system was the desire to prevent copying of books and other types of tangible medium in which works were fixed, and to protect the owner of this right against all unauthorised reproduction by others. This philosophy was encapsulated in the first copyright statute in the world, the 'Statute of Anne', in England in 1709. The main purpose of that legislation was to prevent anyone other than the owner of the copyright in the book from printing the book. The commercial or financial rationale for protecting copyright is also found in Article 1, Section 8 of The United States Constitution,⁵ which states that Congress has the power 'to promote Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their Respective Writings and Discoveries.'

The underlying philosophical base for the Continental European 'author's right'/'le droit d'auteur' system is slightly different and has its origins in the French Revolution. During 1791 and 1793, two decrees were issued in France, by virtue of which authors were granted property rights in their intellectual creations in the sense that nobody was allowed to reproduce the works or perform them in public without their authorisation; infringements would result in a claim for financial compensation for the damage caused. The author's right originates in the act of personal creation and is akin to a 'human right'. The right exists regardless of the nature of the work and regardless of whether the work is fixed in material form or not. This concept of author's right is reflected in Article 27(2) of the United Nations' Universal Declaration of Human Rights,⁶ which states that: 'Everyone has the right to protection of moral and material interests resulting from any scientific, literary or artistic production of which he is the author'.

3.1.2 *The Development of Copyright Law in Trinidad and Tobago*

The first national copyright legislation of Trinidad and Tobago was the Copyright Act No. 13 of 1985. Prior to that, the UK Copyright Act of 1911 applied to Trinidad and Tobago. The 1985 Act was modelled on the UK Copyright Act of 1956. The current law of copyright is the Copyright Act Chapter 82:80 of the Laws of Trinidad and Tobago (Act No. 8 of 1997, as amended by Act No. 18 of 2000 and Act No. 5 of 2008): hereinafter collectively referred to as 'the Act'.

In spite of the fact that Trinidad and Tobago is a common law jurisdiction, the Act contains elements of both approaches to creative rights – the Anglo-American copyright system and the Continental European author's right system. In this sense, Trinidad and Tobago is unique compared to its Commonwealth Caribbean neighbours. One such example is Section 5 (2) of the Act, which provides in part as follows: 'Works shall be protected by the sole fact of their creation and irrespective of their mode or form of expression...' (Copyright Act 1997). The protection of works arises immediately upon creation, without the need for the work to be fixed in some tangible medium, which is one of the hallmarks of the author's right system. In most common law jurisdictions, copyright works extend not only to literary and artistic works in the strict sense but also to sound recordings and broadcasts, whilst performers enjoy performers' rights. However, in Trinidad and Tobago, the rights of performers and the rights in sound recordings and broadcasts are protected as 'neighbouring rights' in Part V of the Act.

Another feature of Continental Europe's author's right system which is reflected in the Act is the very narrow scope of limitations and exceptions to economic rights. Common law jurisdictions following the Anglo-American approach to copyright provide for some of the limitations and exceptions in a fairly broad way, with the implementation of concepts like 'fair use' and 'fair dealing'. The United States 'fair use' doctrine, reflected in Section 107 of the US Copyright Act, 1976,⁷ provides that the fair use of a copyrighted work by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement.⁸ Section 107 essentially gives the courts the latitude to decide when use is permissible without the copyright owner's consent and specifies that the determining factors for deciding

⁵ <http://www.usconstitution.net/const.html>.

⁶ <http://www.un.org/en/documents/udhr/>.

⁷ <http://copyright.gov/title17/>.

⁸ See Sterling, J. A. L., *World Copyright Law* (2nd ed., Sweet & Maxwell, 2003).

whether the exploitation is fair use or not are: a) the objective and character of the use; b) the nature of the work; c) the portion of the work that is used, and d) the effects on the potential market.

In the United Kingdom the concept of 'fair dealing' is similar. Sections 29 and 30 of the Copyright, Designs and Patent Act 1988 of the United Kingdom⁹ (UK CDPA) outline the various exceptions as falling into categories very similar to those of the US, namely: non-commercial research and private study; criticism, review and reporting events; teaching in educational establishments; helping visually impaired people; and time-shifting. Although not actually defined as a fair dealing in the UK CDPA, incidental inclusion of a copyrighted work in an artistic work, sound recording, film, broadcast or cable programme is not viewed as infringing copyright. Since there is no strict statutory definition in the UK CDPA on what fair dealing means, it has largely been interpreted by the courts by looking at the economic impact on the copyright owner. Nevertheless, it has been noted that the tendency has been for the UK courts to interpret the fair dealing provisions strictly, with the burden falling on the defendant to show that the actions complained of fall within the exceptions, and there have only been a few cases where the defendant has been able to discharge this burden.¹⁰

In Trinidad and Tobago, the Act only refers to 'fair dealing' in the restrictive limitation which permits the reproduction of a short part of a published work, in the form of a quotation, and even then the Act does not provide any definition of fair dealing in this context. Apart from the incorporation of concepts of the Continental European author's rights system, the Act also has other distinctive provisions. Provision is made for the concept of a 'collective work' (defined in Section 3 of the Act),¹¹ which is to be distinguished from the concept of 'collections of works' (a category of derivative works in Section 6 (1), examples of which include anthologies). The importance of the concept of collective works pertains to the issue of first ownership of copyright. Given that one of the aims of copyright law is to protect literary and artistic creativity, it follows that protection in the first instance is granted to those who carry out the creative act, namely the authors/creators. This general rule is reflected in Section 26 of the Act. However, like other common law jurisdictions, in keeping with the Anglo-American approach to protecting not only creators but investors in creativity, the Act provides for exceptions to this general rule. Consequently, in relation to works created under a contract of employment or a contract of service (as distinct from a contract for services), the first owner of copyright is the employer (unless otherwise provided for in the contract). Under US copyright law this is known as the 'work for hire doctrine'.¹² Trinidad and Tobago's Copyright Act goes further, by making express provision for the possibility of corporate ownership in the first instance in the case of collective works (see Section 26 (3)).¹³

3.1.3 Protection of Works of Mas

Without doubt, the most distinctive feature of the Trinidad and Tobago Copyright Act is the express protection of 'works of mas'. International instruments in the field of copyright law do not provide exhaustive lists of works that are afforded copyright protection, since each contracting state is free to expand the categories of works that it wishes to protect. It is therefore noteworthy that Trinidad and Tobago and Grenada¹⁴ thus far are the only countries in the world that have created a category of works called 'works of mas'. The introduction of this specific category into the national law of Trinidad and Tobago promotes a national asset that contributes to the cultural identity of the country, based on its unique heritage and traditions. The interpretation section, namely Section 3 of the Act, defines works of mas as follows:

'... 'work of mas' is an original production intended to be performed by a person or a group of persons in which an artistic work in the form of an adornment or image presented by the person or persons is the primary element of the production, and in which such adornment or image may be accompanied by words, music, choreography or other works, regardless of whether the production is intended to be performed on stage, platform, street or other venue'.

⁹ <http://www.legislation.gov.uk/ukpga/1988/48/contents>.

¹⁰ See Sterling (2003) *ibid*.

¹¹ 'Collective work' is a work created by two or more natural persons at the initiative and under the direction of a natural person or legal entity, with the understanding that it will be published by the latter person or entity under his or its own name, subject to the moral rights of the contributing natural persons

¹² <http://www.copyright.gov/title17/92chap2.pdf>.

¹³ In respect of a collective work, the natural person or legal entity at the initiative and under the direction of whom or which the work has been created shall be the original owner of copyright.

¹⁴ In Grenada's new law of 2011 these works are referred to as works of Carnival, but the definition is the same as in Trinidad and Tobago.

In order to understand the rationale for the protection of works of mas, it is important to understand the background and prevailing cultural and commercial context which led to the introduction of this unique feature of Trinidad and Tobago's copyright law in 1997.

Trinidad and Tobago's Carnival is an explosion of creativity which encompasses various aspects of artistic, literary and dramatic expression. Traditional mas, comprising traditional characters such as 'Fancy Sailor', 'jab jab', 'Dame Lorraine' and 'Pierrot Grenade' (to name a few) fall outside of copyright protection¹⁵ and should be protected as traditional cultural expressions or folklore. Contemporary designs of Carnival costumes which meet the threshold of originality, albeit low, qualify for protection as artistic works. The first owners of copyright in these artistic works are the (costume) designers. However, the prevailing practice in or around 1996, and indeed the continuing practice to this date, was that the designers were not always the same person or legal entity as the band-leader. Further, where there are separate persons, the band-leader is likely to be the person undertaking the financial investment and making the arrangements necessary for the creation of the work and therefore to also be the 'producer' and owner of the work of mas under the act. However, the law refers to the producer as owner, so in reality the owner could be anyone who, in that production, turned out to be 'the person by whom the arrangements necessary for the creation of the work (of mas) were undertaken'. This is not necessarily the band-leader. Furthermore, band-leaders do not usually formally acquire rights (by assignment or exclusive licence in writing). These distinctions are important and similar issues also show up with the producers and financiers of music, in that the law leaves it to the facts of the case every time to determine who is the 'producer' and therefore the owner.

Also, apart from the artistic work involved in designing costumes, the parading of mas bands through the streets incorporates other elements of creative expression which are protected by copyright. These copyright-protected elements include literary works and music (through live performances of music bands or steel bands or disc jockeys playing on music trucks) as integral elements of mas bands. Added to this sometimes is the dramatic component, with the central theme or underlying message of the mas being depicted through theatrical performances and dance choreography 'on stage' at the important judging points during the two-day 'Parade of Bands', the climax of Trinidad and Tobago's pre-Lenten Carnival.

The purpose of protecting works of mas was twofold. The first rationale was to provide a financial incentive to the band-leaders and thereby ensure some return for their significant investments in the production of mas bands. For this reason, the first owner of copyright in the work of mas is the 'producer,'¹⁶ who in essence is the band-leader.¹⁷ The other reason was that it was recognised by the legislative drafters that copyright protection does exist in the various underlying artistic works that make up a mas band: the designs and costumes themselves are protected as artistic works, the accompanying music of live performances by musicians and singers on music trucks or playing of music by disc jockeys are protected as musical works, and effects of drama and/or dance that are sometimes utilised are protected as dramatic and choreographic works respectively. Indeed, for this reason, the 'copyright purists' might argue that there is no need for statutory protection of works of mas. However, the band-leader (except if the same person is the designer) is not the first owner of copyright in the artistic work and is not the owner of rights in the underlying literary, musical, dramatic and choreographic works. In recognition of the fact that works of mas incorporate pre-existing copyright protected works, they are protected as a category of derivative work. Consequently, the protection afforded is without prejudice to the rights in the underlying works or to the authors of the pre-existing works included in the work of mas.¹⁸

One of the other issues in relation to works of mas, which also requires clarification, is that of international protection. Trinidad and Tobago and Grenada are the only countries in the world which have specific protection for works of mas. However, as mentioned previously, the underlying copyright works that are incorporated in works of mas are protected in the Berne Convention¹⁹ member states as artistic and literary works. Consequently, if band-leaders (recognised in the Act as 'producers' of works of mas) want to benefit from the commercial exploitation of works of mas internationally, then by means of contractual arrangements

¹⁵ Under s. 19 (1) of the Act, copyright of the author is protected during the life of the author and for 50 years after his death. Not only are the authors or the designers of the traditional Carnival characters unknown, but their origin dates back to the 18th century during the French occupation of Trinidad.

¹⁶ See s. 26 (5) of the Act.

¹⁷ s. 3 of the Act provides in part that the 'producer' of ...a work of mas...is the natural person or legal entity by whom the arrangements necessary for the making of the...work of mas...are undertaken'.

¹⁸ See s. 6 (1) (2) of the Act.

¹⁹ Berne Convention for the Protection of Literary and Artistic Works, 1886

with right owners in the underlying works they can acquire the rights in those works through assignments or licences. In the case of licence agreements, one of the important contractual provisions would be the definition of the territorial scope of the licence. Once the band-leader/producer of the work of mas has the requisite assignment or extra territorial licence from the rights holders in the underlying works of mas, then the band-leader would in turn be entitled to legitimately license such underlying rights and thereby enjoy the financial benefits of commercial exploitation beyond the territory of Trinidad and Tobago.

It is also instructive to consider the legal position regarding copyright protection of artistic works in two of the major international markets for exports of Trinidad and Tobago-styled Carnivals: the United Kingdom and the United States. Since the United Kingdom does not protect works of mas expressly, the question that needs to be considered with regard to carnival costumes is whether they would be regarded as artistic works worthy of copyright protection or considered as utilitarian and as such protected as registered designs. Copyright protection in the UK has, for many years, been qualified in respect of works of design made for industrial mass production. Subject to novelty and other requirements, such works can be protected as registered designs and, even without registration, as unregistered design rights. However, an important feature of the UK design right is that it is unique to the UK and only available to UK- and EU-based entities. This means that non-EU manufacturers of clothing, toys or costumes of functional design will only have short-term protection for three years as unregistered Community designs, unless they register the designs at the UK or Community level. The application of copyright to designs is governed by the UK CDPA.²⁰ Therefore, to protect a carnival costume as an artistic work under UK copyright law, a case would have to be brought under the tightly construed provision of Section 51 of the UK CDPA. It states that it is not an infringement of copyright in a design or design documents (i.e., drawings recording the design) to make articles according to the design, except where the design is for an 'artistic work'. Further, under Section 52 of the UK CDPA, where an artistic work is exploited in mass production, copyright protection (which would otherwise last for the life of the designer plus 70 years) is limited to 25 years (which is equal to the term of protection of a registered design), except in the case of sculptures not made for mass production.

The law of the United States is similar to that of the United Kingdom in the sense that, traditionally, copyright protection is denied to clothing designs on the ground that garments are 'useful articles', for which the utilitarian aspects cannot be identified separately from the pictorial, graphic or sculptural features that are eligible for copyright protection. The similarity ends with the treatment of costumes, as it seems that there is a more robust support for the treatment of costumes as copyrighted works in the US. In 1991, the US Copyright Office, by virtue of Policy Direction No. 214 of the Federal Register,²¹ clarified its practices regarding the registration of masks and costumes. It explained that costumes are treated as 'useful articles' and are registrable only upon a finding of separable artistic authorship. In fact, there has been substantial case law which elucidates these principles. The test of conceptual separability was raised in *Act Young Imports Inc. v. B & E Sales C. Inc.*, 673 F. Supp. 872(S.D.N.Y. 1987), a case involving children's backpacks. There, the court upheld copyright in animal-shaped backpacks, because the animal image was separate from the useful function of the backpack. Further, in *National Theme Productions Inc. v. Jerry B. Beck Inc.*, 696 F. Supp. 1348 (S.D. CAL. 1988), the district court held that, while masquerade costumes were useful articles, the costumes involved in the case successfully met the conceptual separability test. The works at issue were elaborate costumes depicting independently recognisable images and were registered by the Copyright Office. The Policy Direction further elucidated that costumes, by their very nature, exist at the boundary between works of imagination and works of utility.

3.2 International Conventions

The Act makes Trinidad and Tobago fully compliant with its obligations under TRIPS²² and the other international conventions with respect to copyright and related rights, to which the country has committed itself. Trinidad and Tobago is a member of the following treaties relating to Copyright and Related Rights:

1. TRIPS
2. Berne Convention for the Protection of Literary and Artistic Works, 1886 (Berne Convention)
3. WIPO Copyright Treaty, 1996 (WCT)

²⁰ See note 8.

²¹ <http://www.copyright.gov/history/mls/ML-435.pdf>.

²² Agreement on Trade-Related Aspects of the Intellectual Property Rights, 1994.

4. WIPO Performances and Phonograms Treaty, 1996 (WPPT)
5. Geneva Convention for the Protection of Producers of Phonograms Against Unauthorised Reproduction of their Phonograms, 1971 (Geneva Convention)
6. Brussels Convention Relating to the Distribution of Programming-Carrying Signals Transmitted by Satellite, 1974.

Notably absent from the list of treaties signed by Trinidad and Tobago is the Rome Convention²³ for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations. Trinidad and Tobago is a member of 17 WIPO-administered treaties in the field of intellectual property, in addition to 26 intellectual property-related multilateral treaties and two regional economic integration treaties. In general, Trinidad and Tobago grants copyright protection as per international standards and this ensures broad possibilities for developing trade and carrying out transactions with copyright goods and services on the same playing field as other countries in the world economy. It is arguable, however, that although the legal infrastructure is in place, Trinidad and Tobago fails to adequately discharge its TRIPS obligations, since the actual enforcement of the laws by the police and customs is weak.

3.3 Enforcement

The enforcement provisions in the copyright law of Trinidad and Tobago are found in Parts VII and VIII of the Act. Part VII of the Act (Sections 30 to 40) covers the civil and criminal liability for infringement of copyright.

Civil Remedies

Section 38 provides civil remedies to right holders. It generally empowers the court to do the following, *inter alia*:

- (a) grant injunctions (Anton Piller/Mareva or interlocutory/permanent) to prohibit the commission of an infringement;
- (b) order the impounding of copies of works suspected of being made or imported without the authorisation of the right holder;
- (c) order the forfeiture and seizure of all copies of works that have infringed;
- (d) order the payment of damages to the person whose rights have been infringed;
- (e) order an account of the infringer's profits attributable to the infringement;
- (f) order the destruction of the infringing copies.

In all the foregoing cases, the right holder is entitled to her legal costs of the action. The standard of proof that the right holder has to discharge, as in all civil matters, is on a balance of probabilities. However, the right to redress under civil proceedings is qualified by the following:

- (i) Where the infringer did not know nor had reasonable reason to know that he was engaged in an infringing activity, the court may limit damages to the profits of the infringer attributable to the infringement.²⁴
- (ii) The restriction on the award of damages and account for profits at the same time.
- (iii) Destruction of the copies under Section 38(1)g shall not be ordered where the copies and packaging were acquired by a third party in good faith.
- (iv) The evidential privilege against self or spouse incrimination is not available in copyright infringement cases.
- (v) Civil proceedings for infringement of copyright or neighbouring rights are subject to the limitation period specified under the Limitation of Certain Actions Act 1997, which disallows proceedings being instituted four years after the infringement has been committed, save for certain instances.
- (vi) Actions for infringement of copyright or neighbouring rights are also subject to the recent decisions in the Court of Appeal relative to implied sanctions/relief from sanctions for failure to keep deadlines under the Civil Proceedings Rules, 1998, as amended. The restriction on the right to amend proceedings once they have been filed is also affected.

²³ The Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations, 1961.

²⁴ See s. 38 (2) of the Act.

Case Law

Since the new Civil Proceedings Rules 1998 were brought into force, there have been few cases in the civil law in Trinidad and Tobago in which enforcement of copyright protection was sought through the civil law. Noteworthy decisions are found in two cases:

Case 1 – *Nation Drivers Co Ltd v. The Attorney General CV 2007/01730 and Copyright Music Organisation of Trinidad and Tobago v. Columbus Communications Trinidad Limited, Trading as 'FLOW' H.C.4722/2009. CV. 2009-04722*

In the **Nation Drivers Case**, the claimant company carried on a business of designing and implementing road traffic studies and developing road use systems. It entered into negotiations with the Ministry of Works and Transport (MOWT), based on which it produced a road safety proposal. A portion of the proposal was utilised by the state in implementing a pilot project on road safety. The court held that the author of the work was the first owner of the copyright in it. The claimant company was thus solely entitled to all rights of intellectual property contained in the road safety programme.

Case 2 – *Copyright Music Organisation of Trinidad and Tobago v. Columbus Communications.*

In this case, the claimant claimed damages or an account of profits for infringement by the defendant of the claimant's copyright in its musical works and/or within the claimant's repertoire from 5 January 2006 up to the period of the commencement of the proceedings in 2011. The defendant denied that the claimant's repertoire constituted a material portion of its programming and asserted that it was authorised by third parties to use and distribute programming. The court held that this defence was not maintainable to the claimant's case of infringement of copyright and the musical work within the claimant's repertoire being *de minimis* was not a defence to a claim of infringement, neither was a bare assertion that the defendant was authorised by third parties to use and distribute the programming material of the defendant. A third party cannot authorise the defendant to use and distribute musical works belonging to the claimant's repertoire unless some arrangement exists amongst the parties for such an eventuality.

Offences

Section 41 of the Act frames the criminal offence committed by a person who infringes a protected right as follows:

1. 'A person who commits an offence who, without the licence of the copyright owner –
 - (a) makes for sale or hire;
 - (b) imports into Trinidad and Tobago otherwise than for private and domestic use;
 - (c) possesses in the course of a business with the intention of infringing the copyright in the work or neighbouring rights in the sound recording or broadcast;
 - (d) in the course of a business-
 - (i) sells or lets for hire;
 - (ii) offers or exposes for sale or hire;
 - (iii) exhibits in public;
 - (iv) distributes; or
 - (e) distributes otherwise than in the course of business in excess of three copies of, an article which is, and which he knows or has reason to believe is, an infringing copy of a copyright work, performance, sound recording or broadcast.'

Under Section 41 (3) the Magistrate is empowered to impose a fine of up to TT\$250,000 and imprisonment for 10 years.

The standard of proof in criminal offences is 'beyond reasonable doubt': thus, the party who claims that the right has been infringed must give direct evidence in person and provide proof of performance, broadcast or copying of his work. However, the enforcement of the copyright law in criminal cases is not as effective as is

expected. Piracy is committed in a blatant manner in open view of the public in the streets, markets and other public places in the main cities and towns in both Trinidad and Tobago, particularly in relation to CDs and DVDs; in fact, sales of pirated CDs and DVDs have displaced the market for the legitimate original products. The existence of extensive powers to 'search, seize and arrest' given to the police,²⁵ as well as the severe penalties for criminal offences provided for in the Act, have little value or effect, given the culture of weak law enforcement as well as the problem of delays in the court system and the attendant backlog of cases in the Magistrates' Courts. Evidence of this weak culture can be found in Table 3.1, which indicates that, for the entire period of 2007 to 2011 (September), there were a total of 55 cases brought before the courts by COTT, of which only 7 ended in a decision and conviction and 48 cases are still pending.

Table 3.1: Cases Brought Before the Magistrates' Courts by COTT over the Period 2007 to September 2011

Island	Total No. of Cases	No. of Convictions	No. of Pending Cases
Trinidad	53	7	46
Tobago	2	0	2

Source: COTT

3.4 Collective Management

Collective management is a major key to ensuring that copyright royalties are negotiated, paid, collected and distributed to the rights owners. It is a crucial element of the copyright infrastructure, without which the rights owners cannot benefit from their works. When rights owners cannot receive their legitimate benefits, the result is significant economic underperformance of the affected sectors.

The section of the Copyright Act which deals with collective management is Part IX, which gives the High Court special jurisdiction to deal with disputes with licensing bodies. A 'licensing body'²⁶ is defined in s. 49 as meaning:

'any society or organisation which has as its main object, or one of its main objects, the negotiation or granting of general licences in respect of protected works, sound recordings or performances either as the owner or prospective owner of copyright or neighbouring rights therein, or as agent for the owners or prospective owners thereof.'

In turn, s. 49 defines a 'general licence' as meaning:

'a licence extending to -

- (a) the works of several authors;*
- (b) the sound recordings or audio-visual works of several producers; or*
- (c) the performances of several performers, and which does not apply different terms and conditions as between the several authors, producers or performers as the case may be.'*

One of the distinctive features of this part of the Act is that, where a dispute arises between any person and a licensing body with respect to either the refusal of the licensing body to grant that person a general licence or the terms and conditions of the licence, either that person or the licensing body may refer the dispute to the Court. In the UK and in other Commonwealth Caribbean countries it is only the 'aggrieved' person and not the licensing body who may initiate such action. Notwithstanding the existence of such a provision, it has only been invoked on two prior occasions: *CCN Television/Prime Radio Ltd v. The Copyright Organisation of Trinidad and Tobago*²⁷ and *Columbus Communications v. Copyright Music Organisation of Trinidad and Tobago*. In both instances, the High Court ruled in favour of the licensing body, COTT.

²⁵ See ss. 45, 46 & 47 of the Act

²⁶ Also described as a Collective Management Organisation (CMO).

²⁷ H.C.A. No 499 of 1993. In this matter, a dispute had arisen between the parties as to the amount of licence fees payable to the respondent for radio and television broadcast respectively of certain copyright musical works. The applicant, Prime Radio, alleged that the fees on advertising revenues were too high, since all of their revenue was not generated from music. Justice Carlton Best held that the rates were applied evenly by the respondent throughout the industry and that the applicant had allowed a debt to accumulate by ignoring the terms of the interim licence that had been issued by the respondent after they became aware of the applicant's unauthorised use of copyrighted material.

3.5 The Digital Environment – Opportunities and Challenges

The Act (particularly the 2008 amendments) makes Trinidad and Tobago compliant with the ‘WIPO Internet Treaties’.²⁸ Consequently, the definition of ‘reproduction’ in s. 3 of the Act includes reference to ‘permanent or temporary storage of the work or sound recording in electronic form’ which, for example, would extend to temporary or cache copies on a computer’s hard drive, whilst the concepts of ‘electronic retrieval systems’ (which is also included in the definition of ‘published’) and ‘rights management information’ are also defined.

One of the exclusive rights granted by the Act to holders of copyright and neighbouring rights is communication to the public,²⁹ an important right for the development of e-commerce in Trinidad and Tobago, specifically in relation to material protected by copyright and neighbouring rights. This right covers both the actual offering of protected material (e.g., uploading of content) and its subsequent transmission to members of the public. It covers digital services which allow only streaming as well as those services which allow consumers to download permanent copies of protected works, sound recordings and broadcasts. The right exists not only to fight piracy but also to recognise that the dissemination of protected material in digital networks such as the internet has become a primary form of commercial exploitation and should be subject to the control of the rights holder.

3.6 Definition of Copyright Industries and Scope of Measurement

The copyright 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 sale of a product or service or sale of the economic rights themselves. The definition takes account of the role of government as regulator. The terms ‘copyright-based industries’ and ‘creative industries’ are used interchangeably in this study.

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-categorise into the following products and services:
 - (a) *Press and literature.*
 - (b) *Music, theatrical productions, 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.*

The laws of Trinidad and Tobago provide copyright protection for creative activity, including the entire set of activities listed above and works of mas.

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 television 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-based but include a significant component of products and services that are secured by copyright as defined in (1). These include museums, jewellery, coins, architecture, engineering, surveying, interior design, furniture design and fashion 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 spill-over effects of the Core, Interdependent and Partial Copyright Industries. They deal in wholesale and retail, general transportation, telephony and the internet.

²⁸ The WIPO Copyright Treaty and The WIPO Phonograms and Performances Treaty.

²⁹ See ss. 8(1) (j), 21 (1) (a), 23(1) and 24(1)(b)

4. Measurement Methods

In general, this study adopted the methods set out in the 'Guide on Surveying the Economic Contribution of the Copyright-based Industries',³⁰ (hereinafter referred to as 'The Guide') published by WIPO in 2003 to provide a methodology for measuring the economic contribution of copyright-based industries to a country's development. The Guide has been used as a methodological tool in over 30 country studies. The intent was to formulate WIPO's implementation of the wider methodology used to prepare satellite accounts, as promoted by the UN Statistics Division (UNSD), which in turn recognises the need for countries to establish a single unified framework of credible and relevant measures highlighting the importance of the targeted sector.

In essence, what has been devised here for the case of Trinidad and Tobago is a separate accounting framework, which draws on and expands the analytical and empirical capacity of the national accounts of Trinidad and Tobago, without disrupting and overburdening the main Trinidad and Tobago System of National Accounts (TTSNA), as developed by the national statistical office, the Central Statistical Office (CSO). This accounting framework for copyright draws on, and recombines or supplements, the accounting details of different industries within the TTSNA, and thereby establishes adequate connections with the SNA of the country, but allows substantially greater flexibility to introduce details and clarify concepts or classification systems appropriate to the copyright sector. The UNSD has not yet prepared a handbook on how to prepare satellite accounts for the copyright sector and copyright is not classified as an 'industrial sector' in the national accounts of Trinidad and Tobago. However, the estimates of copyright-based output, employment and trade were designed to allow comparison with any of the sectors defined in official practice.

In that context, the study consisted of the following steps:

- (a) Identification of the copyright and related rights-based industries to be studied using as reference Annex I of The Guide as well as the selected copyright- and related rights-based industries which will be given more detailed analysis. The categorisation of these industries was in keeping with The Guide – into core, interdependent, partial and non-dedicated copyright industries – but as applied to the industrial classifications used by TTSNA.
- (b) Based on the decisions on item (a) above, collection of data was undertaken. This involved collection of the TTSNA data for 2000 to 2011 from the CSO, which comprised:
 - The Supply and Use Tables for 2000.
 - National accounting aggregates for 2000 to 2011, including the current provisions estimates for 20 sub-sectors. These comprise details as follows:
 - (i) Gross output
 - (ii) Intermediate costs
 - (iii) Value added
 - Wages
 - Consumption of capital
 - Taxes on production.
 - (iv) Operating surplus
- (c) Identification of the copyright factors for disaggregating sector data and isolating the copyright contributions. These factors were obtained from four sources:
 - Industry profile judgement sample surveys of best practice/success cases.
 - A national accounting establishment random sample survey for the update of the Supply and Use Tables to 2010.
 - Copyright sector surveys to collect supporting detail about the supply and demand of copyright-based industries. Results of two concurrent surveys were processed and used: (i) St Lucia, which used the recently completed St Lucia Census as the sampling frame and focused heavily on ensuring adequate coverage of small establishments, many of which are based in the household; and (ii) Trinidad and Tobago.
 - The copyright factors of relevant countries, in particular the Philippines (which relied on Singapore's factors), Brunei and Jamaica (which relied on factors from Mexico and the US).

³⁰ WIPO publication No.893.

- (d) Where necessary, adoption of The Guide's method of adjusting copyright factors to account for difference in economic structure.
- (e) Compilation of the copyright sector accounts by disaggregating the data from the TTSNA details and then recombining it to fit the classifications in The Guide.

4.1 The Profiles Survey

The questions and guidelines for the conduct of the profile survey of success cases in the copyright sector can be made available. The profiles survey approached 72 cases selected by judgement sampling. The cases were recommended by the CSO, the Ministry of Planning, the THA, and by widely known success cases who then recommended others. Of these, 56 cases responded. The data in Chapter 5 documents some of the cases, selected from the respondents because they came in early or featured best practice cases that greatly clarified how the copyright sector works, and assisted in shaping the final design of the copyright and SUT questionnaires seeking financial data. The detailed returns of the profiles survey will be published separately by the CSO. The returns from the profile surveys were also used to facilitate interpretation of the financial data obtained by fielding the SUT and copyright questionnaires.

4.2 The SUT and Copyright Establishment Surveys

These surveys sought financial and related data to be used to estimate directly (i) the subjective opinions of stakeholders about the importance of copyright; (ii) receipts of copyright-based income as a share of the establishment income; and (iii) copyright-based expenditures as a share of gross expenditures. The questionnaires/guidelines for the SUT survey and the copyright survey can also be made available. The questionnaires were designed using the TELEform Designer software.

In relation to the estimation of the copyright factors and the copyright sector accounts, consultations were also held with the relevant industry segments, through their industry associations, and with relevant public sector institutions and/or ministries. These allowed derivation of specific data to develop the accounts for various copyright industries, complemented by administrative records available from the CSO and other relevant governmental sources.

4.2.1 Sampling Methods

Structural differences in the economies of Trinidad and Tobago required that sampling of establishments be handled separately for each island's particular economy. This approach to the establishment survey in Trinidad and Tobago is consistent with the current design of the Continuous Sample Survey of Population-Labour Force Survey. For the island of Trinidad, the plan called for the stratification of establishment, firstly by industrial sectors and secondly, within industrial sectors, the stratification of establishments by employment size-groups. Therefore, for each industrial sector (16 in total), an establishment was assigned to one of four employment size groups according to the number of persons on its payroll. The employment size groups were as follows: small (under 10 employees); medium (10 to 44 employees); large (45 to 100 employees); and mega (over 100 employees). In the case of Tobago, similar employment size-groups were used. However, an additional feature of the Tobago survey design was the initial stratification of establishment by geographic areas, namely parishes or combination of parishes, according to the population size of the parishes.

4.2.1.1 Sample Size

The determination of adequate sample sizes for Trinidad and for Tobago was based on experience, the allocation of funds and time-frame for completing the survey, and on two other important criteria. Firstly, the sample size must be large enough to facilitate the levels of stratification, bearing in mind that at each level of stratification, estimates of statistics would be important. Secondly, the sample size must be adequate enough to compensate for non-response rates which were expected to be high for this kind of economic investigation. Based on the foregoing, it was decided that the sample sizes for Trinidad and Tobago would be 550 and 600 respectively. The larger sample size for Tobago was due to smaller overall population size, the fact that higher levels of stratification were required, and there was some uncertainty with regards to the accuracy of Tobago's sampling frame.

4.2.1.2 Allocation of Samples to Strata

Allocation of samples to strata was based on a proportionate contribution of stratum to total employment. However, since estimates at the levels of the industrial sectors and geographical areas would be equally important, and bearing in mind that the distributions of establishments by employment sizes are usually skewed, strictly proportionate allocation would yield samples in small industrial sectors and geographical areas that are too small to allow for reliable estimates for them. In order to maintain sampling precision based on proportionate allocation, and yet assure adequate samples for estimates in small domains, adjustments were made to the proportionate allocation weights by the compromise allocation (Kish, 2003: 262-3).³¹

4.2.2 Data Management

After completion of the field exercise, the questionnaires were scanned and verified using the TELEform software, after which, the data were extracted and stored in a database created for this purpose. A custom written computer program was prepared for data editing, based on stipulated requirements set by the CSO. The program was executed on the data to ensure that the data quality was acceptable for the next phase of data processing. Analytical tabulation by the CSO was done using the SPSS statistical software package. However, additional data cleaning and analysis for this report was done using the Stata statistical software package.

4.3 Estimating the Interdependent, Partial and Non-dedicated Copyright Factors

The copyright factors for Trinidad and Tobago are based on two main sources. First, from the responses to the random samples of small and micro firms, an estimate was obtained of the subjective assessment of the importance of copyright to each industry. Similarly, an estimate was provided of the share of copyright in the sales of the industry. Heavy emphasis was placed on the St Lucia sample, since this was completed and processed satisfactorily at the time of estimation while data from the Trinidad and Tobago surveys were still being collected and could only be used to adjust the data from other countries. The second source is the set of estimates from a selected set of comparable countries that conducted similar studies using sample surveys as part of the WIPO project. In this case we have chosen Brunei, a small country with a huge energy sector, and thus an economic profile that is broadly similar to Trinidad and Tobago. In particular, its oil and natural gas sector accounts for most of its GDP and its exports. Another country chosen is the Philippines, which has a significant tourism sector. Tourism and related services make up the second major exporting sector of Trinidad and Tobago. The study of the Philippines relied on the Singapore survey estimates in preparing its copyright factors. Finally, the estimates for Jamaica are also used. These relied primarily on factors from the survey-based estimates of Mexico and on factors employed in the US studies.

4.4 The Importance of Copyright

To obtain a qualitative assessment of the significance of copyright to the partial copyright sector, each respondent was asked the following question, 'How important is copyright to the operations of your organisation?' with response options: '[1] very important; [2] important; [3] not important'. The question was posed by a trained interviewer after explaining to the respondent the nature of copyright as a property right. Following the method adopted in the Brunei study, a preliminary numerical index was attached to the responses as follows: [0.9] very important; [0.42] important; [0] not important. The index of 0.42 is the geometric mean of the two Brunei significance factors: significant (0.6) and slightly significant (0.3). Then, the preliminary copyright factor was computed according to the arithmetic mean significance score provided by all respondents in the sector.

³¹ Kish, L. (2003). Selected Papers (Wiley Series in Survey Methodology), New York: Wiley, reference to Multipurpose Sample Designs, reprinted from Survey Methodology, 1988, Vol. 14, No. 1, pages 19-32: Let n be the sample size allocated to stratum h ; W the proportionate allocation weight and H is the number of strata. This procedure utilized at all levels of stratification allocated the number n to stratum, h such that it is proportionate to the root of the sum of the square of the weight (W) of stratum h and

$$n_h \propto \sqrt{w_h^2 + \frac{1}{H^2}} \quad n_h \propto \sqrt{w_h^2 + \frac{1}{H^2}} \quad \text{and therefore,}$$

the square of the inverse of the number (H) of strata. That is,

$$n_h = \alpha \sqrt{w_h^2 + \frac{1}{H^2}} \quad n_h = \alpha \sqrt{w_h^2 + \frac{1}{H^2}}, \quad \text{with} \quad \alpha = \frac{n_h}{\sqrt{w_h^2 + \frac{1}{H^2}}} \quad \text{a constant} \quad \alpha = \frac{n_h}{\sqrt{w_h^2 + \frac{1}{H^2}}} \quad \text{a constant}$$

The resulting estimates are reported in Table 4.1. The prior estimates generated by the Brunei copyright survey are reported for comparison. The highest prior significance weight (0.9) is claimed by producers of paper and related products, followed by design activities (0.54). The lowest significance weight is attached by those involved in the manufacture of jewellery, including costume jewellery (0.21).

In an effort to reduce any bias that might arise from the small number of cases in any group of respondents, the next step was to apply size weights to the significance scores, where the size weights were the number of employees in the firm. Under market pressures to sustain paid employment, firms with more than one employee are likely to pay more attention to all possible sources of earnings, and would accordingly devote more effort to identifying earnings from copyright. Their evaluation of the significance of copyright might be somewhat more in line with commercial practice. The employment-weighted copyright factors are reported in Table 4.2. As expected, they vary substantially for those industries that contain firms which employ more than one person. The highest copyright factor still goes to manufacturing of paper and related products (0.9). However, the next highest copyright factor is now that of manufacturing of textiles (0.6) and the manufacturing of furniture (0.51). The copyright factor claimed by manufacturers of jewellery falls to 0.1.

The above estimates attempt to eliminate bias from the subjective answers provided to the question of the importance of copyright. The copyright factors have also been based on the specific share of the company sales generated by copyright-based activities. The question posed was: 'What percentage of turnover is attributable to copyright related activities in your company?' The estimates are reported in Table 4.2. The data show attributions of turnover to copyright as follows: (i) the manufacture of paper and related products, 50%; glass and related refractory products, including chinaware, 30%; and furniture, 20%. It is also important to note that responding firms attributed to copyright an average of 8.5% of insurance and real-estate sales.

Table 4.1: Prior Copyright Factors Reflecting the Significance Responding Firms Attach to Copyright in their Operations

Industry group	N	Mean (preliminary copyright factor)	Brunei preliminary estimate
Manufacturing of textiles, garments and footwear	13	0.475	0.4874 (average)
Manufacturing of paper and related products	2	0.900	
Manufacturing of glass and related refractory products	1	0.420	0.675 (average)
Manufacturing of furniture	5	0.360	0.38
Manufacturing of jewellery	4	0.210	0.90
Other manufacturing	4	0.330	0.6
Hotel and restaurants	9	0.493	na
Insurance and real estate	25	0.427	na
Design activities	4	0.540	na

Table 4.2: Copyright Factors Weighted by Employment Size

Industry	Employment-weighted copyright factor	Copyright factor based on percentage of sale
Manufacturing of textiles, garments	0.604	0
Manufacturing of paper/related products	0.900	0.500
Manufacturing of glass and related refractory products	0.420	0.300
Manufacturing of furniture	0.514	0.200
Manufacturing of jewellery	0.105	0
Other manufacturing	0.330	0
Hotel and restaurants	0.621	0
Insurance and real estate	0.492	0.085
Design activities	0.489	0

4.5 Final Copyright Factor Estimates

The estimates presented in Tables 4.1 and 4.2 are now used to prepare final copyright factors consistent with The Guide and the practices of other countries. As in The Guide, all identified core copyright industries are assigned a copyright factor equal to 1. Among the interdependent copyright sectors, only steelpan and paper converters are produced in Trinidad and Tobago. In the case of steelpans, this is a single product industry: a drum is purchased and transformed using inputs completely dedicated to this process. Similarly, the only output of the industry is the steelpan, and there are no other by-products. Moreover, the sole purpose of the output is to use or produce copyrighted music. So, in the context of satellite accounting, since the industry exists only in relation to copyright, we assign a copyright factor of 1.

To use these survey estimates in preparing the final copyright factors for the interdependent copyright production of paper and all the other partial and non-dedicated copyright-based sectors in the Trinidad and Tobago accounts, the employment-weighted subjective estimates provide a baseline. However, we assume that where an establishment indicates that it has received a positive share of its *turnover* from copyright, the indicated share must be combined with the employment-weighted subjective assessments. Further, where the responses on the share of the turnover are zero, the subjective responses are used as a valuation method. Finally, the local estimates are reconciled with international standards by computing an appropriate mean of the local employment-weighted subjective estimates, the non-zero turnover shares, and the sales-weighted estimates adopted from the Philippines and Brunei. The next question we address is what constitutes an appropriate mean in this case. In principle, since we are using means of fractions, the harmonic mean is most appropriate from a mathematical standpoint. An additional argument in favour of the harmonic mean is that the subjective estimates appear elevated relative to the share of turnover and the estimates from the Philippines and Brunei. The resulting factors are reported in Table 4.3.

Table 4.3: Copyright Factors for the Core, Interdependent, Partial and Non-dedicated Copyright Industries

	Copyright factors, Philippines	Copyright factors, Brunei	Copyright factors, Jamaica	Preliminary copyright factors, survey of establishments (St Lucia)	Employment-weighted copyright factors, survey of establishments (St Lucia)	Copyright factors estimated from share of turnover (St Lucia)	Copyright factors, Trinidad and Tobago
Copyright Sector							
Core Copyright Industries							
Press and Literature	1	1	1	1	1	1	1
UWI and Other Research Institutions	1	1	1	1	1	1	1
Music Theatrical Production, Opera	1	1	1	1	1	1	1
Steel Bands	1	1	1	1	1	1	1
Motion Picture, Video and Sound	1	1	1	1	1	1	1
Radio and Television	1	1	1	1	1	1	1
Photography, Visual and Graphic arts	1	1	1	1	1	1	1
Software, Databases and New Media	1	1	1	1	1	1	1
Advertising Services	1	1	1	1	1	1	1
Copyright Collective Management Societies	1	1	1	1	1	1	1
Works of Mas	1	1	1	1	1	1	1
Interdependent Copyright Industries							
TVs, Radios, VCR, CD and DVD Players, Electronic Gaming and Equipment	0.350			NA	NA	NA	NA

Table 4.3: Copyright Factors for the Core, Interdependent, Partial and Non-dedicated Copyright Industries (continued)

	Copyright factors, Philippines	Copyright factors, Brunei	Copyright factors, Jamaica	Preliminary copyright factors, survey of establishments (St Lucia)	Employment-weighted copyright factors, survey of establishments (St Lucia)	Copyright factors estimated from share of turnover (St Lucia)	Copyright factors, Trinidad and Tobago
Computers and Equipment	0.350			NA	NA	NA	NA
Pan and Other Musical Instruments	1.000		1.000	1.000			1.000
Photographic and Cinematographic Instruments	0.300			NA	NA	NA	NA
Photocopiers	0.300			NA	NA	NA	NA
Blank Recording Material	1.000			NA	NA	NA	NA
Paper	0.250	1.000		0.900	0.900	0.500	0.493
Partial Copyright Industries							
Tailors, Dressmakers, and Shoe Repair	0.004	0.223	0.005	0.475	0.604	0.000	0.009
Leather and Leather Products	0.420			0.475	0.604	0.000	0.495
Pottery and China	0.006	0.037	0.005	0.420	0.420	0.300	0.013
Museums	0.420	0.500	0.500				0.470
Jewellery, Coins	0.420	0.420	0.250	0.420	0.420		0.359
Architecture, Engineering, and Surveying	0.083	0.290	0.500	0.540	0.489		0.205
Furniture and Related Products	0.017	0.218	0.050	0.360	0.514	0.200	0.055
Interior Design	0.083			0.540	0.489		0.142
Non-dedicated Support Industries							
General Wholesale and Retail	0.058		0.050	0.446	0.660	0.062	0.073
General Transportation	0.058		0.057	0.446	0.660	0.062	0.076
Telephony and Internet	0.058		0.057	0.446	0.660	0.062	0.076

4.6 Other Proportionality Factors

Certain additional proportionality factors have been used in the study, for the purpose of extracting data on key sub-sectors such as the 'works of mas', music and pan manufacture (Table 4.4). The factors were chosen based mainly on the experience and recommendations of the CSO. Specifically, works of mas are treated as 40% of the broad industry 'band masqueraders, calypso tents, music, and theatrical production; independent artistes n.e.c.'; with the remainder assigned to 'music, theatrical productions and opera'. Also, it is known that the steelpan industry is dedicated to supplying the steelbands, other local demand and exports. We adopt the estimate of the CSO that the approximate size of the steelpan manufacturing industry is about one-third of the steelbands industry as a whole.

The CSO's detailed use tables for 54 sectors for the year 2000 can be made available. Where necessary, because of the absence of structural details, these tables provide the basis for estimating proportionality constants that allow projections to more recent years. They were especially useful in estimating the trade flows. These applications are defined in context as the results are presented in Section 6 below.

Table 4.4: Selected Proportionality Factors Used in the Study

Sector Code	Description of sub-sector in the national accounts	Description of embedded or related copyright industry	Sector share based on CSO analyst experience
19-03-06	BAND MASQUERADERS, CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES, N.E.S.	BAND MASQUERADERS (works of mas)	0.4
19-03-06	BAND MASQUERADERS, CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES, N.E.S.	CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES (music, theatrical productions and opera)	0.6
19-03-02	Steelbands and other Orchestras	Pan Manufacture	0.3

Source: estimated

4.7 Application of the National Accounts to Trinidad and Tobago

Even though the primary purpose of the surveys was to obtain copyright factors that could be used to disaggregate the sectors of the SNA and identify the copyright components, much additional information was collected about the characteristics of the sectors, such as gender characteristics, funding sources, pricing strategies and other data that facilitate interpretation of the national and copyright accounts. These details are not reported here, but the datasets are available for further study by interested scholars considering the national accounts of Trinidad and Tobago, and St Lucia.

Estimates are provided for the years 2000, 2007 and 2011. Overall, the national accounting data and copyright factors were used to assess the impact of copyright, measured as follows:

- (a) The direct output effects, as represented by the value added of copyright-based activities.
- (b) Induced impact, evident in the group of non-dedicated support industries.
- (c) The employment impact, covering all the general classes of resources – intermediates, labour, capital, both fixed and financial.
- (d) The foreign trade impact, defined in terms of net exports. Supplementary data were collected from the copyright management services, to estimate the net royalty flows for selected copyright goods and services.

The accounts were designed in full collaboration with the CSO to be fully consistent with its practices and to become a standard annual account that it can prepare in subsequent years. In that regard, the CSO's estimates for 2000 and 2007 are final estimates, while those for 2011 are based on actual accounting data for the first two quarters of 2011, and on the CSO's projections to the full year using their well-established forecasting methods for all relevant variables including prices. These methods are not discussed in detail here. Copyright sector estimates for all years are provisional in the sense meant by national accountants. As is standard for satellite accounting, all estimates will be revised during the normal process of revising the CSO national income estimates during the financial years to September 2012 and finalised by 2013.

Finally, using the data from the SUT 2000, estimates were compiled of the average returns to expenditures on labour and imported inputs by the copyright, and by the sub-sectors for which data are available in the tables. Estimates were also provided of the wage share and the profit share of the sectors. These estimates were then used with the estimates of the efficiency of resource use to provide a general assessment of the relationship between profits, the average returns to expenditure on labour, a proxy for labour productivity, and the average returns to investment in imported capital, a proxy for import productivity. The methods and results of this generalisation are reported appropriately in Chapter 8, along with their implications for policy.

5. Background to the Trinidad and Tobago Economy

This background provides context for the main estimates of the study of the contribution of copyright-based industries to GDP employment and trade in Trinidad and Tobago. It provides historical data on these variables, against which the data on copyright contributions can be assessed. The background analysis also includes data from the SUT, indicating the relative importance of the sectors that supply and use copyright, as well as the outputs that embody copyright.

5.1 Population and Employment

Table 5.1 documents the trends of population, labour force and employment of Trinidad and Tobago since 2000, and Table 5.2 describes corresponding growth patterns. Figure 5.1 graphs the growth patterns. The general tendency is that the rate of population growth is very slow and quite stable, relative to the rate of growth of the labour force and employment. Overall, this has meant falling unemployment, but it is well-known that these employment patterns are highly sensitive to exogenous shocks, especially to oil and gas prices and hence government's net revenues and budget balance. For this study, a central question is whether the copyright sector displays characteristics that offer a long-term promise of moderating the effects of such shocks to the energy sector and the fiscal space.

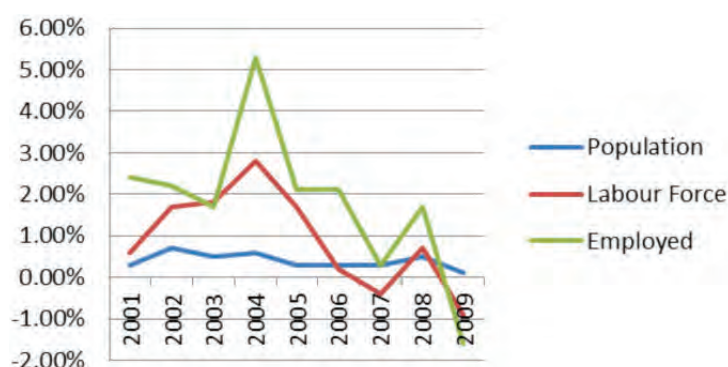
Table 5.1: Population, Labour Force and Employment

Year	Trinidad and Tobago			Tobago		
	POPULATION (000)	Labour Force (000)	Employed (000)	POPULATION (000)	Labour Force (000)	Employed (000)
2000	1,262.40	572.8	502.0	54.1	22.8	21.0
2001	1,266.80	576.4	514.0	54.9	24.8	21.7
2002	1,275.70	586.2	525.1	55.3	25.2	23.0
2003	1,282.40	596.5	534.1	55.6	26.3	24.1
2004	1,290.60	613.4	562.2	56.0	27.0	25.9
2005	1,294.50	623.7	574.0	56.4	29.8	28.4
2006	1,297.90	625.2	586.2	56.8	28.7	27.2
2007	1,302.20	622.4	587.8	57.3	28.7	27.6
2008	1,308.60	626.6	597.7	57.8	30.1	28.8
2009	1,310.10	621.0	588.4	58.4	29.1	27.8

Table 5.2: Growth Patterns of Population, Labour Force and Employment

Year	Trinidad and Tobago			Tobago		
	POPULATION	Labour Force	Employed	POPULATION	Labour Force	Employed
2001	0.3%	0.6%	2.4%	1.6%	8.8%	4%
2002	0.7%	1.7%	2.2%	0.5%	1.6%	6%
2003	0.5%	1.8%	1.7%	0.7%	4.4%	5%
2004	0.6%	2.8%	5.3%	0.7%	2.7%	7%
2005	0.3%	1.7%	2.1%	0.6%	10.4%	10%
2006	0.3%	0.2%	2.1%	0.9%	-3.7%	-4%
2007	0.3%	-0.4%	0.3%	0.8%	0.0%	1%
2008	0.5%	0.7%	1.7%	0.9%	4.9%	4%
2009	0.1%	-0.9%	-1.6%	1.2%	-3.3%	-3%

Figure 5.1: Growth Rates of Population, Labour Force and Employment



5.2 The Government and Trade Balances

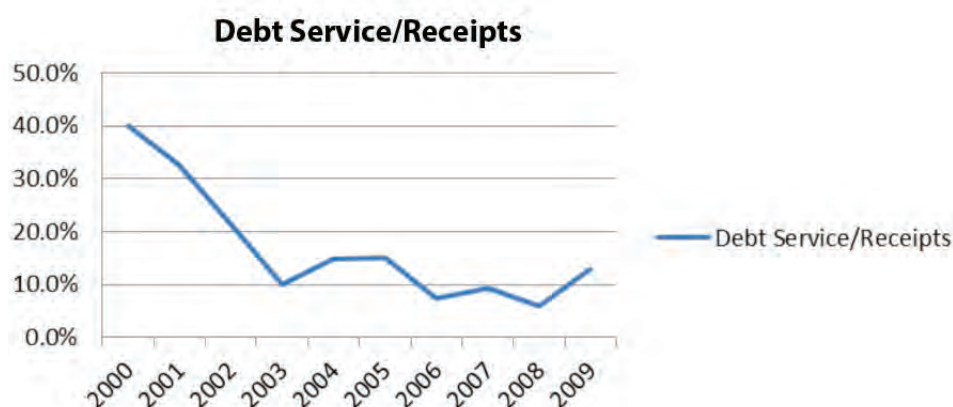
Table 5.3 shows the trend in government expenditures, receipts and debt since 2000, while Table 5.4 shows their growth patterns. The general trend was a positive budget balance up to 2008, but a budget deficit emerged in 2009, and debt and debt-service requirements began to drift upwards. Figure 5.2 illustrates the sharp decline in debt service as a share of budget receipts and the emergence of an upward turn since 2003 and especially in 2009. Table 5.5 shows the state of the balance of trade over the decade since 2000. Here, the evidence is best summarised as indicating that there was a rising positive balance before the Great Recession of 2007/8 and a sharp negative shock thereafter in 2009. Figure 5.3 illustrates trends in the Trinidad and Tobago current account balance 2000-2009. The general recession has continued for the global economy, and output in many leading economies, such as the US, has not yet recovered to the pre-recession peak. It is well-known that the shock to the local economy is linked to the sharp decline in international energy prices and there has been significant recovery since 2008 but, again, not to pre-recession levels. The positive trends have allowed build-up of import cover of up to 14 months. Despite the cushion, it is readily appreciated from the protracted global recession since 2008 that national development policies must address prospective imbalances in the future.

Table 5.3: Selected Government Budget Indicators – Receipts, Expenditure and Debt

Year	Trinidad and Tobago			Tobago		Trinidad and Tobago	
	GDP at Constant 2005 Prices (\$MNTT)	GOV'T RECEIPTS (\$MNTT)	GOV'T EXP. (\$MNTT)	GOV'T RECEIPTS (\$MNTT)	GOV'T EXP. (\$MNTT)	TOTAL DEBT (\$MNTT)	DEBT SERVICE (\$MNTT)
2000	68,246.60	12,199	12,499	93.5	351.9	20,749	4,893
2001	71,096.20	14,381	13,991	97.1	539.5	20,044	4,706
2002	76,733.10	14,122	14,227	106.9	695.9	20,637	3,009
2003	87,814.10	17,366	16,592	114.4	680.7	21,461	1,742
2004	94,795.40	20,885	20,674	128.6	924.3	22,043	3,115
2005	100,682.00	29,648	27,234	168.6	1177.6	22,287	4,449
2006	114,288.50	38,911	37,085	125.4	1097.9	19,510	2,914
2007	119,573.30	40,064	39,796	122.7	1455.8	22,238	3,744
2008	122,316.70	56,848	53,873	150.6	1885.4	23,621	3,341
2009	121,256.50	39,045	45,731	138.2	1874.4	25,278	5,063

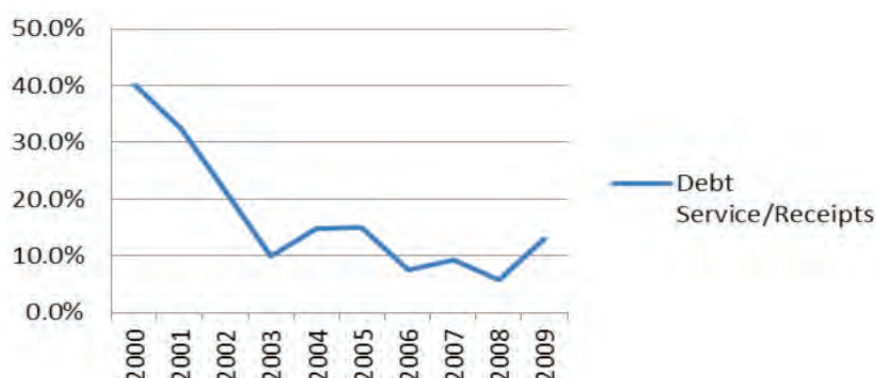
Table 5.4: Growth Trends in Government Budget Indicators- Receipts, Expenditure and Debt

Year	Trinidad and Tobago			Tobago		Trinidad and Tobago	
	GDP	GOV'T RECEIPTS	GOV'T EXP.	GOV'T RECEIPTS	GOV'T EXP.	TOTAL DEBT	DEBT SERVICE
2000							
2001	4.2%	17.9%	11.9%	3.9%	53.3%	-3.4%	-3.8%
2002	7.9%	-1.8%	1.7%	10.1%	29.0%	3.0%	-36.1%
2003	14.4%	23.0%	16.6%	7.0%	-2.2%	4.0%	-42.1%
2004	8.0%	20.3%	24.6%	12.4%	35.8%	2.7%	78.8%
2005	6.2%	42.0%	31.7%	31.1%	27.4%	1.1%	42.8%
2006	13.5%	31.2%	36.2%	-25.6%	-6.8%	-12.5%	-34.5%
2007	4.6%	3.0%	7.3%	-2.2%	32.6%	14.0%	28.5%
2008	2.3%	41.9%	35.4%	22.7%	29.5%	6.2%	-10.8%
2009	-0.9%	-31.3%	-15.1%	-8.2%	-0.6%	7.0%	51.5%

Figure 5.2: Ratio of Debt Service to Government Receipts, Trinidad and Tobago**Table 5.5: The Balance of Trade and FDI**

Year	GDP at constant 2005 prices (\$MNTT)	Current Trade Balance at constant 2005 prices (\$MNUS)	Foreign Direct Investment (\$MNUS)	Investment Income Paid Abroad (\$MNUS)
2000	68,246.60	968.8	679.5	628.5
2001	71,096.20	718.1	834.9	539.3
2002	76,733.10	237.7	790.7	479.8
2003	87,814.10	1293.2	808.3	680.9
2004	94,795.40	1508.7	998.1	397.3
2005	100,682.00	2647.7	939.7	760.3
2006	114,288.50	7700.2	882.7	935.8
2007	119,573.30	5721.4	830	963.7
2008	122,316.70	9064.4	2,800.80	1202.2
2009	121,256.50	2202.1	709.1	996.7

Figure 5.3: Trends in the Trinidad and Tobago Current Account Balance, 2000-2009



5.3 Underlying Industry Structure

Table 5.6 shows that under these patterns there is a certain structure of the GDP by sector. It indicates that mining (which is essentially the energy sector) and manufacturing have been growing relative to all others. The comparative shares are presented in Figure 5.4. Mining is highly vulnerable to exogenous shocks and manufacturing has a very low import productivity signature, with its mean varying from 0.7 up to 6.7 depending on the sub-sector (Table 5.7; Figure 5.5). In the manufacturing sector, production of petrochemical derivatives ranks the highest. It would be interesting to see how the copyright sector stacks up against these two sectors.

Import productivity in the mining sector is also very moderate, at about 9. These estimates compare with 33.5 for the best performing sub-classes of the copyright sector. The fact that the sectors with the highest import efficiency signature are not currently the fastest growing also points to underinvestment in them, when judged against the experience of negative shocks and the need for endogenous responses through the domestic production system. Put differently, by increasingly dominating the economy, the mining and manufacturing sectors are systematically suppressing the productivity of imports, moderating the productivity growth effects of the rest of the economy, and thereby are constraining growth of the capacity of the economy to save foreign exchange through the production system.

In this light, the data in Table 5.8 shows that the economy is becoming increasingly export-dependent, averaging 62.6% over the decade after starting from 56.8% as exports grew at an average rate of 11.1%, mirroring average growth of 10.1% in mining and 11.6% in manufacturing. At the same time, the already low import productivity virtually stagnated, averaging only 2.7 and growing at only 1.6% per annum over the decade. So, as illustrated in Figure 5.6, there was no significant growth in import productivity to match the rising dependence on exports. These data, taken together with the data on the distribution of import productivity by sector in Table 5.7, shed a new light on the performance of the manufacturing sector and the economy as a whole. First, in general, the average import productivity of the economy is very low, weighed down by the relatively large size of the manufacturing and mining. Second, the low average import productivity of manufacturing shows that underlying the growth of manufacturing is a high degree of dependence on the export capacity of the energy sector to afford it relatively cheap financing of imports without producing a compensating growth impact on the economy as a whole, and the domestic economy in particular, either through inter-industry demand or the production of domestic final capital. Third, and even more important, the data really reveal that the growth path is indicative of a high-risk development strategy that leaves the economy vulnerable to potentially significant problems on the balance of payments and government debt, without an adequate response capacity embedded in the production system. In general, these risks have only materialised randomly in the past but, when they do, the result is often significant social and political turmoil. Policy-makers are aware of the need to address the identified risks and one benefit of this study is that it identifies the full spectrum of alternatives using rankings on import productivity and labour productivity. In particular, it highlights the relative share of copyright-based sectors and clarifies more fully the extent of underinvestment in them, using more updated information that would also exhibit the share of the copyright sector in output.

Table 5.6: Structure of GDP by Sector

Year	Agric	Mining	Mfg	Const	Distrib Trade	Trans	Other
2000	1.1%	39.9%	17.2%	6.7%	20.3%	6.2%	25.1%
2001	1.0%	41.2%	17.6%	7.1%	19.2%	6.4%	24.3%
2002	1.0%	42.9%	18.4%	6.3%	18.2%	6.5%	24.4%
2003	0.7%	47.9%	20.7%	6.7%	16.1%	6.0%	22.4%
2004	0.5%	48.0%	20.8%	6.8%	15.5%	5.5%	23.6%
2005	0.5%	49.3%	21.3%	7.4%	15.3%	5.6%	21.9%
2006	0.4%	52.7%	23.8%	7.0%	15.4%	5.3%	19.7%
2007	0.4%	52.1%	24.0%	7.3%	15.2%	5.3%	20.2%
2008	0.3%	51.4%	24.4%	7.3%	16.1%	5.0%	20.3%
2009	0.3%	53.7%	26.1%	6.4%	14.6%	4.8%	20.9%

Figure 5.4: Trends in Trinidad and Tobago Sector Shares, 2000-2009

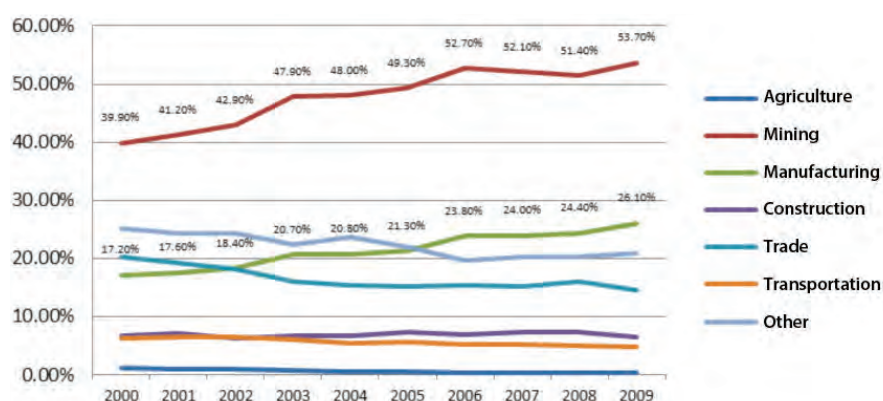


Table 5.7: Import Productivity by Sector, Ranked from Highest to Lowest

Sector	Import Productivity (2000)!
Personal Services (9219,5020,9301,9302,9303)	33.492339
Business Services (7010,7430,7111-7129,7492)	29.768229
Insurance (6601,6603)	27.103633
Oil & Gas Distribution (5050,4020)	20.940705
Restaurants (5520)	20.828189
Hotels & Guest Houses (5510)	17.880639
Finance (6511,6519,6592,6599,7530)	15.262967
Bakeries (1541)	13.644154
Wholesale & Retail Distribution (52/51)	13.277597
Quarries & Asphalt (1410.1429)	12.434453
Wood (2010,3610,2029)	11.864589
Fruit & Vegetable Processors (1513)	11.507031
Oil & Gas Production (1110)	9.0388074
Gas Processing (2411)	7.9142516
Fish Processors (1512)	7.3948833
Petroleum & Gas Refineries (2320,2320)	6.7164837
Construction Materials (2422,2693,2695,2694,2520,2811)	6.6657235
Electricity (4010)	6.600988
Transport (6021,6022,6304,6309,6301,6304,6302,6411,6412)	6.5313467

Table 5.7: Import Productivity by Sector, Ranked from Highest to Lowest (continued)

Communication (6420)	5.8068363
Construction (4510,4520,4530,4540)	4.2685919
Service Contractors (1120)	3.0621891
Water (4100)	2.9888228
Petrochemicals (2411)	2.988569
Feed & Flour Mills (1531,1532,1533)	2.9022502
H/hold Chemicals (2423,2424)	2.6277929
Other Manufacturing (1911,3691,2519,3699)	2.2911555
Alcohol/Soft Drinks/Tobacco (1551,1553,1554,1600)	2.2171287
H/hold Appliances (3420,3140,3430,2511,3220,3512,3610,2899)	2.0731369
Textiles (1711,1810,1920,1729)	2.0260475
Poultry Processors (1511)	1.9099062
Printing (2212,2211)	1.7038119
Meat Processors (1511)	1.4639555
Plastic Products (2520)	0.8373983
Dairy Factories (1520)	0.3395678
Miscellaneous Food Manufacturers (1543,1544,1549)	0.2473748
Paper Converters (2109)	0.0731115

!Measured as the ratio of value added to the value of imports used in production

Figure 5.5: Import Productivity by Sector, 2000

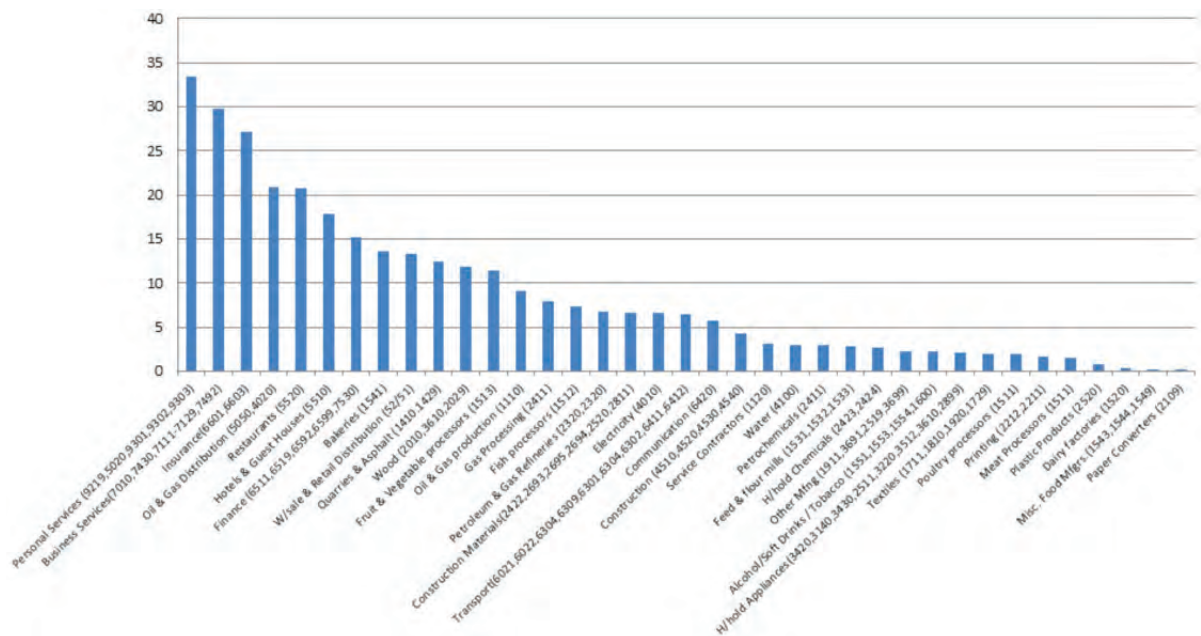
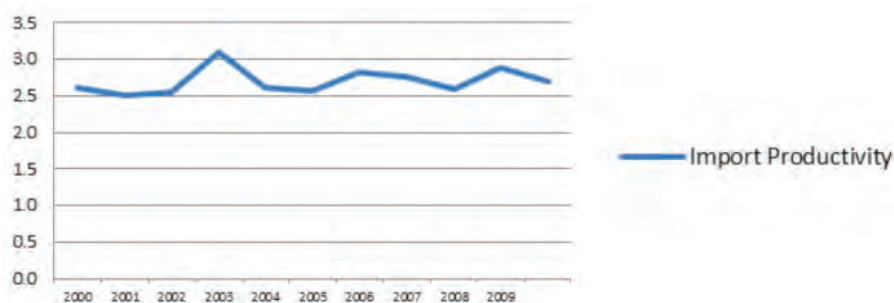


Table 5.8: Import Productivity Performance and Sector Growth

Year	Growth of Real Exports	Growth of Real Imports	GDP Growth	Import Productivity	Import Productivity Growth	Export Share of GDP	Growth of the Share of Exports	Growth of the Share of Mining	Growth of the Share of Mfg
2000				2.61901		56.8%			
2001	0.19%	8.8%	4.2%	2.506689	-4.3%	54.6%	-3.8%	6.9%	6.1%
2002	-8.93%	6.1%	7.9%	2.549375	1.7%	46.1%	-15.6%	12.2%	12.6%
2003	28.80%	-5.9%	14.4%	3.100893	21.6%	51.9%	12.6%	28.2%	29.2%
2004	13.41%	27.7%	8.0%	2.62109	-15.5%	54.5%	5.1%	7.8%	8.0%
2005	28.29%	8.6%	6.2%	2.562992	-2.2%	65.8%	20.8%	9.0%	9.1%
2006	22.23%	3.2%	13.5%	2.820385	10.0%	70.9%	7.7%	20.4%	25.4%
2007	-4.76%	7.2%	4.6%	2.751683	-2.4%	64.5%	-9.0%	3.6%	5.8%
2008	24.63%	8.6%	2.3%	2.592027	-5.8%	78.6%	21.8%	0.7%	3.7%
2009	-3.57%	-11.1%	-0.9%	2.889172	11.5%	76.5%	-2.7%	1.9%	4.4%
Average	11.1%	5.9%	6.7%	2.7	1.6%	62.6%	4.1%	10.1%	11.6%

Figure 5.6: Trend in Import Productivity in Trinidad and Tobago, 2000-2009



6. The Copyright Sector Profile: SUT 2000 Baseline Data on Contributions of the Copyright-based Industries to GDP, Employment and Trade

The balanced Supply and Use Table (SUT) for Trinidad and Tobago, 2000, provides data on the suppliers and users of 98 sub-classes of commodities defined under the Central Product Classification (CPC) system of the UNSD, covering both goods and services. The suppliers and users are defined under the International Standard Industrial Classification of All Economic Activities (ISIC) system used by the SNA Rev 3.1, which also correspond to the categories used by WIPO (2003) to define the copyright-based industries. The CPC covers both goods and services, and each CPC sub-class consists of goods or services that are predominantly produced by a specific ISIC industry in the SNA Rev 3.1.

Similarly, the associated ISIC industry will normally produce most of the goods and services defined by the CPC sub-class. Thus, by organising the product classes according to the ISIC reference industries, one is identifying the main goods and services produced by these industries. However, there is no one-to-one correspondence between the CPC and the ISIC, so the details of the SUT provide additional information as to which other industries contribute to the production of the referenced goods or service group, even if only as a secondary or tertiary product. In that light, the following points are noted regarding copyright-bearing products or services and their corresponding ISIC supplying and using sectors.

6.1 Press and Literature

In most countries, press and literature is the largest core copyright industry, contributing an average of 40% of the GDP of the core sector and generating 44% of the employment³². Within the wider sub-class, there are printers and publishers delivering the goods and services in certain categories. Table 6.1 reports the numbers in operation in Trinidad and Tobago. In Tobago, there one newspaper publisher and six printers supply a mixed set of goods and services. In Trinidad, there are four newspaper publishers and 169 printers, of which 87 supply a mix of products, 27 specialise in graphic design, four in greeting cards, 34 in screen printing and 17 in labels.

Table 6.1: Printers and Publishers in Tobago and Trinidad

Category	Tobago	Trinidad	T&T
	No.	No.	No.
Newspaper Publishers	1	4	5
Printers	6	169	175
of which			
Labels		17	17
Screen Printing		34	34
Greeting Cards		4	4
Graphic Design		27	27
Mixed	6	87	93

Source: computed

The outputs of the sector commodities are the main goods and services produced by ISIC activities (2211, 2212, 2221) in the Trinidad and Tobago SUT, as listed in Table 6.2. The industry, especially its publishing component, depends heavily on copyright. Of the general classes and sub-classes in Table 6.2, the SUT 2000 records data for only the following:

³² Based on the results of WIPO-sponsored studies in various countries.

- CPC 3221 (sub-class 1) – Printed books, brochures, leaflets and similar printed matter, in single sheets other than advertising material;
- CPC 3230 (sub-class 7) – Newspapers, journals and periodicals appearing at least four times a week;
- CPC 3240 (sub-class 8) – Newspapers, journals and periodicals appearing less than four times a week;
- CPC 3259 (sub-class 15) – Other printed matter.

All other commodities are not measured in the SUT 2000. While not in the core copyright sector, the following are interdependent activities that facilitate the production and use of copyrighted activity as specified above:

- Registers, account books, notebooks, letter pads, diaries and similar articles, blotting-pads, binders, file covers, forms and other articles of stationery, of paper or paperboard (ISIC 2221).
- Composed type, prepared printing plates or cylinders, impressed lithographic stones or other impressed media for use in printing (ISIC 2222).

Table 6.2: The General Classification of Press and Literature

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
27-01	2211	3221	Books, brochures and leaflets (except advertising material) printed, printed maps; music, printed or in manuscript	1. Printed books, brochures, leaflets and similar printed matter, in single sheets, other than advertising material	Printed books, brochures leaflets and similar printed matter, in single sheets other than advertising material	Core
		3222		2. Dictionaries and encyclopaedias, and serial instalments thereof	NA	Core
		3223		3. Printed books (except dictionaries and encyclopaedias and serial instalments thereof), brochures, leaflets and similar printed matter, other than advertising material, not in single sheets; children's picture, drawing or colouring books		Core
		3225		4. Other books of maps or charts	NA	Core
		3225		5. Maps and hydrographic or similar charts (including wall maps, topographical plans and globes), printed, other than in book-form	NA	Core
	2213	3226		6. Music, printed or in manuscript	NA	Core
	2212	3230	Newspapers, journals and periodicals, appearing at least four times a week	7. Newspapers, journals and periodicals, appearing at least four times a week	Newspapers, journals and periodicals, appearing at least four times a week	Core
		3240	Newspapers, journals and periodicals, appearing less than four times a week	8. Newspapers, journals and periodicals, appearing less than four times a week	Newspapers, journals and periodicals, appearing less than four times a week	Core
	2219	3251	Stamps, cheque forms, banknotes, stock certificates, postcards, greeting cards, advertising material, pictures and other printed matter	9. Unused postage, revenue or similar stamps; stamp-impressed paper; cheque forms; banknotes, stock, share or bond certificates and similar documents of title		Core

Table 6.2: The General Classification of Press and Literature (continued)

	2219	3252		10. Printed or illustrated postcards; printed cards bearing personal greetings or messages, with or without envelopes or trimmings		Core
	221	8911	Publishing, on a fee or contract basis	1. Publishing, on a fee or contract basis	Not documented	Core
				2. Printing services and service related to printing on a fee or contract basis		
	2221	3253		11. Trade advertising material, commercial catalogues and the like		Core
	2219	3254		12. Printed pictures, designs and photographs		Core
	7421	3255		13. Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand-written texts; photographic reproductions and carbon copies of the foregoing		Core
	2219	3256		14. Transfers (decalcomanias = transferred engravings) and printed calendars		Core
	2221	3259		15. Other printed matter	Other printed matter	Core

Source: TTSNA and SUT; WIPO (2003)

Apart from delivering final goods and services to the public, the sub-class provides goods and services to other sectors. Specifically, there are linkages between press and literature and sectors such as tourism, education, and entertainment. On this basis, it could be expected that a significant share of the industry's output potential would take the form of *preparation* of products related to the major sectors of the economy, such as tourism (e.g., books, magazines and brochures, guides for hotels and lodging, maps, address books, timetables), advertising (e.g., advertising products, publication and printing of advertising for retail products, shows and parties), music, transportation (e.g., printed timetables and maps for all types of means of transportation), the education sector (e.g., books and non-magnetically encoded identity cards), insurance industry (e.g., contracts and reports), and general engineering (e.g., architectural and engineering drawings). None of these are covered in the baseline data provided in the SUT 2000, so the indicators of performance must be interpreted in this light.

The empirical evidence from the SUT suggests that the press and literature sector is of major importance in the cultural landscape of Trinidad and Tobago. SUT data show that the sub-class defined in the wider industrial grouping in the ISIC used TT\$255 million of intermediates in 2000, generated wages and emoluments of TT\$164.9 million, paid TT\$700,000 of taxes on production, received no subsidies, used up TT\$39.8 million of fixed capital in generating the output and produced TT\$119.1 million of operating surplus from which retained earnings and the cost of capital were met. The industry produced 0.655% of GDP, 0.52% of operating surplus and 0.8% of the domestic wage bill. It generated exports of TT\$79 million, which amounted to 24.3% of total industry value added. The industry contributed 0.262% of total exports and achieved import productivity of 1.7 (value added per dollar of imported inputs used), which is very low among the core copyright sectors, primarily because of the low share, 39%, of domestic capital in its total (fixed and circulating) capital consumed in the production process. Matters are likely to be quite different in the components of press and literature not yet measured.

6.1.1 *Lessons from the Profiles Survey*

The survey of prominent players in the local industry provides significant insights into how the press and literature sector works in Trinidad and Tobago. A general observation among the leading players is that the local cultural sphere, being multicultural, is rich and provides a strong foundation for development of a significant industry in press and literature. The development and exploitation of Caribbean literature can bring numerous benefits to the entire region, not least as a basis for the development of films based on the unique perspective of the country and the region. Yet there are major challenges. Earl Lovelace, an internationally famous Trinidadian writer, observes that, 'it is unfortunate that quite often it is the people overseas who see you as a valuable commodity, so many writers do not reside here. I know first-hand the vexations and difficulties of building a profession here.'

6.1.1.1 *Trinidad*

Trinidad is the source culture for the development of two prominent Nobel Prize-winning authors, V.S. Naipaul and Derek Walcott, yet the publishing industry in Trinidad operates in a relatively limited local market, with local demand inadequate to drive widespread and increasingly successful content creation on the scale needed to be a significant player in the global industry. As was the case with both Naipaul and Walcott, local authors tend to achieve success by making a breakthrough in foreign markets and getting international kudos before they gain local respect. The income streams of the most popular writers come mainly from sales abroad and from royalties channelled to them through the distribution systems maintained by foreign collecting societies, such as the PRS, of which they are members.

The general feeling among the players interviewed was that, in Trinidad, investment in the arts and literature in general is not viewed as a major investment opportunity and that, as a consequence, authors feel undervalued. Some suggested that this is now increasingly changing, especially in the field of journalism and the print media, taking into account the vast opportunities opened up by the internet. It was suggested that the sector faces major problems, such as piracy and poor enforcement of rights. The developing local infrastructure of copyright protection is weak and results in poor remuneration, lack of opportunities, job insecurity and inefficient exploitation of copyright, conditions which are widely perceived as discouraging authors from pursuing professional careers in content development.

6.1.1.2 *Tobago*

Locally and internationally, Tobago does not have as much of a presence in the press and literature industry and all respondents pointed to the need for many of Tobago's authors and other industry players to reside abroad, mostly in Trinidad. They observed that newspapers had limited circulation and they suggested that there was a vast but untapped potential in Tobago's culture for the development of literary works and a functioning press, especially in the current digital age, but that economic conditions in the island had discouraged widespread interest and initiative until now. They specifically commented on the potential for a robust collaboration between the Tobago House of Assembly and writers, to publish online far more information on Tobago, given the island's focus on tourism.

The Tobago News weekly is Tobago's main newspaper; it has a circulation of approximately 5000, while other daily newspapers from Trinidad have a daily circulation ranging between 800 and 2000. The main source of newspaper revenue is advertising, which presently accounts for about 80% to 85% of the revenue in the case of *The Tobago News*. A linear relationship exists between the size of the newspaper (i.e., the amount of news available for printing and thus the number of pages to be printed) and the number of advertisements that can be placed in a particular issue. Revenue is, therefore, more dependent on the amount of news available for printing than on circulation. The contribution of circulation to revenue currently approximates 15% to 20%. The cost to produce the newspaper is a relatively small share of revenues, so the profits are a relatively high share of revenues, with the resulting payment of high dividends.

The Tobago News performs the important functions of informing society about news, social events, and life-enhancing opportunities and providing support for social programmes, in particular those that are focused on the younger generation. Opportunities for reaching Tobagonians living in Trinidad are being considered, but no feasibility study has yet been undertaken to determine the market characteristics of that demographic. The

changing technology makes vertical integration unlikely. World news is now available instantaneously and *The Tobago News* is therefore looking at initiatives in horizontal integration, such as real estate investments and acquisition of shares in other companies.

Among the major problems of the industry are the lack of direct support for the private sector's initiatives in the arts and the absence of promotion of creative work, for example, through the education system. Most respondents believed that the local industry suffers from the crowding-out effect of government and claimed that the government inappropriately functions as an enterprise operating within this sector, rather than as a facilitator and regulator of private entrepreneurs who develop and manage the commercial prospects of the sector.

6.2 Music, Theatrical Productions, Opera

In Trinidad and Tobago, music is the flagship component of the copyright sector generally, and of the sub-class of 'music, theatrical productions and opera' in particular. The industry is vibrant and closely associated with the national identity; indeed, it is a key means of disseminating local culture to the rest of the world. It is comprised of numerous musical styles and instruments, such as calypso, soca, chutney, chutney soca, pantar, rapso, ragga, extempo and others, most of which are truly unique, and all of which developed against the background of home grown creativity and talent. Theatrical productions and opera, while much less prominent, have their own major achievements, prominent among which is the development of Derek Walcott into the 1992 winner of the Nobel Prize for Literature including his plays. Its modern prominence is achieved mostly in the rich exhibition of comedy on stage and television.

There are two segments of music activity considered in the CPC. One of these is covered in the sub-class of Press and Literature as *printed music* – in the component described as 'music, printed or in manuscript' in the ISIC sub-class 2213 but not measured in the TT SUT 2000. This is certain to be a very important underpinning of the music industry that was neglected by the baseline estimates. The second segment falls into the sub-groups listed in Table 6.3. Once again, most of the activities of the sub-class are not covered by the SUT 2000, and the covered activity 'performing arts and event promotion and organisation services' is deeply embedded in a very broad class of activities in the Personal and Miscellaneous Services sector. The important elements that will be added to, and separated in, the updated SUT and copyright satellite account include all the items listed as 'not documented', including important segments such as 'performing arts and live entertainment services', 'services of performing artists', and 'services of authors, composers, sculptors and other artists, except performing artists', all of which play pivotal roles in the development of the copyright-based industries in Trinidad and Tobago. In Trinidad, these would include the very popular year-round comedy acts and, in Tobago, the acts of the Tobago Heritage Festival, both sets of which could readily develop into substantive foundations for other copyright productive sectors such as film and literature. Related to all of these is a class of linked publishing and recording activities that can be summarised as 'publishing, on a fee or contract basis' [ISIC 221], 'printing and reproduction of recorded media, on a fee or contract basis' [ISI 221], 'printing services and services related to printing, on a fee or contract basis' [ISIC 222], 'reproduction services of recorded media, on a fee or contract basis' [ISIC 223], none of which have been covered in the SUT 2000.

Nevertheless, a substantial, if incomplete, preliminary picture of the contribution of the music, theatrical productions and opera sub-class can be obtained from the economic performance of the sub-class in which the activity is embedded. The SUT data show that the sub-class, defined in the wider industrial grouping defined as class *Personal and Misc. services – Rec and Cultural, Rep to M/V, Laundries, Barbers, Beauty Salons, Funeral Parlours, Photo Studios, Tailors, dressmakers (9219,5020,9301,9302,9303)*, used TT\$53.2 million of intermediates in 2000, generated TT\$1,029.3 million in wages and emoluments, paid TT\$500,000 of taxes on production, received no subsidies, used up TT\$129.5 million of fixed capital in generating the output and produced TT\$254.0 million of operating surplus from which retained earnings and the cost of capital could be met. Accordingly, gross value added amounted to TT\$1413.3 million, or about 2.85% of GDP, 1.11% of operating surplus, and 5.2% of the domestic wage bill. The high share of wages suggests a highly labour-intensive sector. It generated exports of TT\$255.6 million, which amounted to 18.1% of total industry value added. The consolidated industry contributed 0.85% of total exports and achieved a very high import productivity signature of 33.5 (value added per dollar of imported inputs used), which is among the highest of all sectors in the economy, making it an attractive target for national development programming. The performance is closely related to the extraordinarily high share, 79%, of domestic capital in the **total**

(fixed and circulating) capital consumed in the industry's production process. It would be interesting to see how substantially matters change when the components of the music industry are properly measured.

Notwithstanding the fact that the following activities of instrument production are not in the core of 'music, theatrical productions and opera', it is not reasonable to consider the music industry in Trinidad and Tobago without addressing them:

- Pianos and other keyboard stringed musical instruments
- Other string musical instruments
- Wind musical instruments organs, accordions and brass-wind instruments
- Musical instruments, the sound of which is produced, or must be amplified, electrically
- Other musical instruments (including percussion instruments, musical boxes and fairground organs)
- Decoy calls, whistles, call horns and other mouth-blown, sound-signalling instruments
- Parts and accessories of musical instruments
- Metronomes, tuning forks, and pitch pipes.

In Trinidad and Tobago, the important activity in this sub-class is 'pan', supporting pan-related performances, one of the prominent creative activities within the flagship sub-class of music – 'steelband, calypso and carnival'. These activities of pan production are a substantial and internationally famous aspect of the music industry, broadly conceived, but will be measured as part of the interdependent copyright sectors.

Table 6.3: Music, Theatrical Productions, Opera

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
	2221 2213 2230 7221 7229	4752	Audio and video records and tapes	1. Records, tapes and other recorded media for sound or other similarly recorded phenomena (except cinematographic film and cards with magnetic strip); computer software	Not documented	Core
	9211	9611	Audiovisual and related services	2. Sound recording services; audio post-production services	Not documented	Core
						Core
54-01	9214 9219	9621; 9622	Performing arts event promotion and organisation services	3. Performing arts event promotion and organisation services; Performing arts event production and presentation services	Included in the broad class <i>[Personal and misc. services – Rec and Cultural, Rep to M/V, Laundries, Barbers, Beauty Salons, Funeral Parlours, Photo Studios, Tailors, dressmakers (9219,5020,9301,9302,9303,)]</i>	Core
	9214 9219	9623		4. Performing arts facility operation services	Not documented	Core
	9214	9629		5. Other performing arts and live entertainment services	Not documented	Core
	9214	9631		6. Services of performing artists	Not documented	Core
	9214	9632		Services of authors, composers, sculptors and other artists, except performing artists	Not documented	Core

Table 6.3: Music, Theatrical Productions, Opera (continued)

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
	221	8911	Publishing, on a fee or contract basis	7. Publishing, on a fee or contract basis	Not documented	Core
				8. Printing and reproduction of recorded media, on a fee or contract basis		
	222		9. Printing services and services related to printing on a fee or contract basis			
	223	8911		10. Reproduction services of recorded media, on a fee or contract basis		Core

Source: TTSNA, SUT (2000), WIPO (2003)

6.2.1 Lessons from the Profile Survey of Leading Players in Music, Theatrical Productions, Opera

6.2.1.1 Steelpan/Steelband Music in Trinidad

The experts responding in this segment observe that steelband music is deeply rooted in the national cultural identity of Trinidad. It emerged from popular roots in community culture and in close association with the popular rhythms of calypso and the works of mas in the Trinidad Carnival – famously described as the trinity of ‘steelband, calypso and carnival’.

The steelpan being a musical instrument that was only invented in the 20th century, no major take-off of this segment has taken place as yet, in significant contrast to Carnival and the transformation of calypso.

Panadigm

Panadigm was established in May 2006 as an attempt in the first instance to find a space to lodge the intellectual property coming from the Steelpan Initiative Project (SIP). Panadigm was formed to file for trademarks for the PHI (Percussive Harmonic Instrument) and for the G-Pan. The Steelpan Initiative Project (SIP), which has been funded through a Government grant, has been involved in research over a period of time and intends to take the research to market. The flagship product of the company is the Percussive Harmonic Instrument, more popularly called the PHI (pronounced ‘FY’). The musical instruments used in steelpan music have been granted patents in various markets.

The industry leaders interviewed observed that the industry nevertheless has great industrial potential in the following areas:

- Tuning of pans as a specialisation.
- Teaching the playing and tuning of the instrument.
- Production and sale of tuned pans.
- Concerts where artistes utilise variations beyond calypso.

Some leaders pointed somewhat optimistically to the ‘virtue’ of having large numbers of people who, being unable to read music, committed entire scores of music to memory. Indeed, they suggested that this extraordinary human achievement was one aspect that could be marketed and used to ensure that the local pan players reaped the benefits of international performances.

Birdsong Music Academy

In 2004, Birdsong took the innovative step of establishing the Birdsong Music Academy to address, inter alia, music literacy, development of musicians and general artistic expression. The Academy is accessible to all. With the help of the University of T&T, it develops community engagement and undertakes social work. Nationally recognized and applauded, it organises music literacy training camps and has created a network of friends. Its business model is considered by the Ministry of National Security as an input into crime prevention programmes in high risk areas.

PANTAR

The music of Pantar is the widely recognized rich legacy created by Mungal Patasar. The music of Pantar brings together a fusion of Indian, calypso (folk) and jazz music. Pantar originates from the two leading instruments of the ensemble: the 'pan' from 'steelpan', and the 'tar' from 'sitar'. The concept was founded in the philosophy that music is a universal language that eclipses mundane physical and ethnic boundaries. The music of Pantar aims to express this ideal. It is the convergence of Europe, Africa, the Americas and the Orient. This remarkable ensemble has achieved considerable international success and, in 2000, the group was signed to Virgin Records in France. Pantar is financially independent because of its many performances locally, regionally and internationally, and sales of the group's CDs over the years has averaged 5000 per year. Live performances and touring are major sources of income, although ensuring financial assistance for touring and recording is an area of concern. The band has maintained steady and secure employment practices paying monthly salaries, negotiating fees for performances and making concessions for charity shows. Turnover of personnel in the band has been minimal.

Exploitation of the possibilities of the industry is still hugely challenging. Promotion is the key to earning money in copyright but there are not many professional music promoters in Trinidad and Tobago who promote pan. The experts interviewed observe that steelband members and players still have considerable difficulty in finding financial assistance for recording and touring for regional and international exposure. Many of the musicians are not professionally educated in music and launching a '*local professional*' career in music groups and moving towards '*true professional*' is often an insurmountable challenge for the individual, if viewed only from the standpoint of their inability to read music.

Further, as one put it: 'steelpan performances remain a charity'. Beyond that, the critical challenge that pan musicians face is to find regular means of survival while playing music full-time. Older artistes who do not perform have no steady income, even though they might be holders of national awards. The contribution of the pioneers is not routinely catalogued and their memory is not being preserved in ways that could provide an adequate platform for the development of the next generation of pannists. Government and corporate structures have not yet invested adequately in the efforts to develop and promote the pan music industry internationally. The pan as an instrument is still confined to seasonal application and there is little radio airplay for the many incarnations of pan music outside the Carnival season.'

6.2.1.1.1 Pan Music in Tobago

All of the above considerations arise in Tobago, which boasts a few of the leading and prize-winning bands in the country. Two key issues for steelbands in Tobago, however, are i) the right of ownership of the properties in respect of which they have had long tenure, and ii) attracting larger numbers of young people to the segment.

6.2.1.1.2 Calypso and Chutney – Trinidad

Calypso is the oldest of Trinidad's musical art forms, with a history that is well-documented in Gordon Rohlehr's book *Calypso and Society in Pre-Independence Trinidad*.³³ In essence, this is an art form built on social commentary and commanding a broad social appeal in an era when the other media of public education were underdeveloped and inaccessible to the general public. The art form is still very much alive even though it appears to be losing its cultural and economic appeal, but it has given rise to soca, an art form that has a livelier beat, is more economically viable, and so provides very promising opportunities for professional practice.

Chutney, on the other hand, emerged in Trinidad in association with soca as an art form based on local Indian musical traditions and catering to local Indian musical tastes. The leading players interviewed suggested that the prospects for the industry were good and that more and more artists are able to make a professional career out of chutney. The chutney art form is presently taught in Hindu primary schools via the Baal Vikaas programme and there is also strong demand in other communities in the Indian diaspora.

³³ Rohlehr, G. (1990), *Calypso and Society in Pre-Independence Trinidad*. Rohlehr: St Augustine, Trinidad.

The evolution of digital technology has brought positive benefits to professionals in calypso, chutney and soca, in terms of falling recording costs (except with respect to the use of live musicians) and less complex recording technologies, which have led to greater access to the recording of material.

Digital technology and the internet have also allowed a rapid growth of the market for music, and enabled marketing, broadcasting and distribution from the local base. Further, tourists are also increasingly placing a priority on local music.

The industry leaders indicated that there was a reasonable institutional basis for development of these art forms, but much progress was still needed in this area, partly because of the ethnic flavour of the organisational structure. One such institution is the Trinidad Unified Calypsonians Organization (TUCO) formed in 1992 to drive the development of calypso, and recognised as a national body incorporated by an Act of Parliament No.33 of 1998. Funded mainly by the government of Trinidad and Tobago, TUCO is officially the bargaining body for the rights and cultural interests of all calypsonians and calypso singers as well as to promote and market the calypso art form globally. It also seeks to assure the welfare of its members. Currently, it has over 1000 members, which provides some basic indication of the size of the industry. TUCO also has strong international collaboration with the Association of British Calypsonians (ABC); the Organisation of Calypso Performing Artists, Toronto, Canada; the New York West Indian/American Labour Day personnel, and the California Carnival body.

Copyright is of great importance to music professionals in Trinidad and Tobago, especially to composers, and has been treated as important ever since the famous victory of Lord Invader and Lionel Velasco in the US courts over their rights for the famous song 'Rum and Coca-Cola' performed by the Andrew Sisters. Singers are also beneficiaries of neighbouring rights, but observation of practice shows that their major income comes from fees negotiated for performances.

Notwithstanding favourable prospects, there are significant challenges ahead. The main challenges identified by the leading players are:

- Lack of professional management of musicians;
- Lack of training on a regional basis to:
 - develop technical skills and adopt new technologies;
 - access financing and develop marketing strategies;
- Lack of easily accessible advice on copyright;
- A low level of knowledge on copyright by creators, performers and sponsors, which results in missed opportunities for economic exploitation of existing rights;
- Underdeveloped copyright infrastructure, especially the capacity of functioning collecting societies, resulting in affiliation with foreign societies at the expense of improving and developing the local infrastructure for collections and the enforcement capacity of police and the judiciary;
- Piracy and inadequate copyright enforcement;
- The policy of local music stores not to promote local music effectively;
- Distrust and conflict within the industry;
- Fragmentation of the industry between traditional and modern music and excessive fragmentation along ethnic lines;
- Lack of a repository of traditional music;
- Inadequate spread of chutney musical forms beyond the Hindu primary schools and inadequate teaching of all local forms throughout the school system at all levels;
- Inadequate spread of the demand for chutney beyond its ethnic boundaries;
- Lack of infrastructure and training at the community level;
- Excessive taxation, especially of equipment via VAT on instruments;
- Insufficient public support in the form of music scholarships to major markets and traditional music centres;
- A music business model and branding strategy that is inadequate to accelerate access to national, regional and global markets, and excessive market closure on the investment side of the industry;
- The weak capital base of local promoters, and inadequate trade promotion and investment programming by the public sector;
- A non-existent or weak incentive package for the music industry; and
- Poor institutional structure, in the sense of absence of a strong business association to support the musical tradition.

Bindley Benjamin

Bindley Benjamin is a prominent musician who in 1990 was responsible for introducing the following three classifications of calypso entered in Carnival competitions in Tobago and judged accordingly: Social Commentary, Political Commentary and Humour. He was also instrumental in having calypso judges paid for their services. He observed that a more direct approach is needed when promoting local music and culture internationally, of going into universities and promoting their art-form through concerts where the school takes a percentage. He also felt that a quota system should be instituted by the government to ensure that local music gets a fair percentage of airtime, and therefore becomes more appealing.

Calypso Rose

Calypso Rose, Tobago's most prominent and successful player in the entire copyright sector, started writing and singing calypso at the age of 15 in 1955, in Bethel, Tobago. She won the Calypso Queen title from 1974 to 1978, motivating a change in the labelling of the local Calypso Finals from 'Calypso King' to 'Calypso Monarch'. Internationally, she won the Calypso King and the Road March titles in St Thomas, singing 'Cooperation'. With all the major calypso titles in hand, Rose retired from competition to export her music. Calypso Rose has been a member of the Performing Right Society (PRS) for Music since 1966. She currently receives royalties when her music is played worldwide in Russia, Iceland, Greenland, Poland, France and the former Czechoslovakia. She sees the role of the government as partially that of developing more young trained musicians, for example, trumpeters and trombonists. She said: 'It is obvious that some money is spent on the steelpan, but more money should be spent on the other segments of the entertainment industries. In addition, more resources need to be expended on marketing the local entertainers on the international scene.' The government 'may also be included in the promotion efforts.' Rose lamented the threat posed by 'rampant local piracy which is vivid at every city street corner, with some artists unconcerned in a bid to acquire larger listenership and popularity.'

6.2.1.2 Tobago

The leading players in Tobago are of the view that the future of the music, theatre and opera industry is bright, if the resident population can adapt to ongoing technological and organisational changes and allow the benefits of the performing arts to outshine any negativity attached to them. The population is already well conditioned for the outward-looking view demanded of local populations competing in the current global environment enabled by the digital revolution. Related to this, there is a significant tourism focus in the economy, which provides wide-ranging options for the interface between community and rural tourism and this segment, especially using a model that exploits synergies with the popular Heritage Festival of Tobago. Further, as industry leader John Arnold observed, Tobago has kept a very broad focus in its musical tradition, with many of its local acts playing a leading role on the national calypso and soca scene while developing other copyright forms in other aspects of music, supported by 'poems, heritage scripts, superstitious stories and knowledge of herbs for medicinal purposes.' Arnold himself led a lot of school-based activity in the industry but admitted that it was unequal to the challenges of the current period.

Tobagonian musicians face the same challenges as Trinidadians, as documented above, only to a much greater extent. One especially important challenge is that internet technologies are much weaker than in Trinidad; there are many areas of Tobago where rich talent resides and there is simply no internet access at all. Incomes from the sector are also substantially more irregular for the typical participant, even though Tobago boasts many of the nation's leading artists in many aspects of this segment. Local industry infrastructure is poor and there is a great need for formal training in the arts, including playing, arranging and drama/film scoring. Some industry leaders also hold the view that a major deficiency is the absence of a strong union of musicians, which weakens the bargaining position of musicians in Tobago, and in Trinidad for that matter.

The Tobago Academy of Performing Arts (TAPA) is one of the outstanding institutions supporting the sub-class in Tobago. Established in October 1983, it is also one of Tobago's successful non-profit organisations. Its principal activity is dance: ballet, tap, jazz, modern, and folk. In 2001, TAPA brought international recognition to Tobago when they participated in the highly competitive Llangollen International Eisteddfod in Wales and won first place. TAPA is the first and only Caribbean group to win this prestigious competition. TAPA leader, Annette Alfred, said that copyright know-how is a serious issue faced by the NGO, as a number of their choreographed dances have been taped and are lodged and used at the Culture Department, Division

of Community Development and Culture, which, over the years, has distributed them to a number of dance groups based both inside and outside Tobago without the permission of the organisation.

Mrs Alfred believed that Tobago's future was bright if the people could adapt to the changing global challenges. Such adaptation, she said, starts with specific education about the benefits of participatory social and cultural activities in the communities. The obstacles to commercialisation would also have to be addressed with 'financing, training, physical infrastructure, and personal drive.' She further noted: 'Public awareness will help lighten the load by showcasing all that the performing arts have to offer', and, 'Tobago is a tourist destination and as such we should have our talents showcased at a moment's notice.'

Policy-makers would have to make a bigger input here: 'Performing arts should be mandatory as any other subject, then students can decide if they want to further their studies or not. This would provide a basic understanding of the field and those who want to continue may do so with confidence having firm foundations, including a basic understanding of their history.'

In Trinidad and Tobago, there are four major **commercial theatre** companies, one being RR Productions, owned by Richard Ragoobarsingh and another, RS Productions. The industry has existed for a long time, with Derek Walcott's Little Carib Theatre among its prominent pioneers, and with acclaimed authors such as Earl Lovelace providing distinguished scripts; yet it has found development a substantial challenge, even after Walcott's major successes. Industry leaders blame elitism, problems of marketing, high production costs (including copyright costs), and unavailability of space, among other concerns. In fact, this rich cultural environment for the production of attractive scripts is one of the factors that suggest a feasible and bright future for theatre in Trinidad and Tobago. A good example of how success can be achieved is the business model adopted by the Heritage Festival in Tobago, which is theatre sponsored by the Tobago House of Assembly. To grasp a full picture of the challenges of theatrical development despite such foundations, it is worth fully reporting the interview with Mr Ragoobarsingh and resulting profile of the industry here:

On RR Productions and cooperation with other players: RR Productions also collaborates with other commercial entities, particularly RS Productions, in the production of theatrical performances.

On prospects: Mr Ragoobarsingh observed that, in Trinidad and Tobago, theatre was on a developmental curve but was still considered to be rather elitist. 'Theatre in Trinidad and Tobago therefore has to fight that public relations battle that London and New York theatre does not have ... to hard sell. More young people have been coming to the theatres within the last few years, but theatre is still morphing into being part of the cultural landscape of Trinidad and Tobago. It is ahead in terms of some of the performing arts such as dance... and visual arts such as paintings. In Jamaica, a lot of people see theatre as an entertainment alternative and it is a vibrant industry that fills their halls during performances. Marketing is a challenge and also very costly.' To survive, 'theatre houses depend on corporate clients to assist in advertising costs for television or newspaper advertisements. Each production company maintains a relationship with their clientele; however, corporate clients cannot always assist. The production company then needs to develop a backup system for getting promotional activity.'

On Costs of Production: 'Besides rental cost of theatre spaces, there are lots of ancillary costs such as costuming, make-up artists, photographers, graphic artists, stage managers, lighting, etc., that is required. The availability of theatre spaces is another area of concern. Infrastructure development for theatres throughout the country is not considered a major priority by the government. Concerns regarding copyright in theatre spaces arise when spaces are not licensed for COTT (Copyright Music Organisation of Trinidad and Tobago), thereby leaving the burden of payment with the producer of the play.'

'Conflicts arise, as some of the music played in theatres does not even last 20 seconds and billing is calculated similar to a restaurant playing a full 3-5 minute song. These challenges were subsequently addressed by COTT. Many people ask how to get involved in being an actor as we are not taught in primary school the value of performing arts in any tangible way.'

On policy-makers' priorities and theatre: 'Trinidad and Tobago has never prioritised art as intrinsic to the growth and development of the society. In interaction with the decision-makers, one has to understand that there may be a level of ignorance in terms of their appreciation and respect for what theatre does. This is compounded when they don't attend local plays. They may attend plays when they travel abroad, but it then becomes a condescending attitude in Trinidad and Tobago as local plays are seen as mediocre by the general public. An intrinsic aspect of being an actor is having an appreciation of the movies.'

On the outlook for the future: 'In reviewing the outlook for the future, it is to be noted that the movies started out of a feed from the theatrical community. Theatre is an untapped resource because it is a feeder to many other performing arts in terms of film, television and movies. There are no theatre festivals in Trinidad and Tobago while they are found all over the world. Trinidad and Tobago is strategically positioned in the Caribbean to conduct performances and be the centre of the theatre festivals. The state has to decide that the performing arts are important and provide financial assistance for Trinidad and Tobago representation of the performing arts in different parts of the world. Plans for the future include taking productions further north – to New York, Canada and London. To undertake this exercise, other factors come into play such as financial assistance, as for theatres abroad you need to obtain insurance, which costs millions, and unionisation comes into focus in the dynamics of what works internationally.'

TVP

Leaders at Total Video Productions Ltd (TVP) in Tobago point out that it is also useful to observe that, even as they face the challenge of investing in expensive professional equipment, in particular for broadcasting and training of professional staff, video production companies in Trinidad and Tobago mostly thrive by covering private and public events and producing promotional material. The chances are very low that such a company can compete successfully in the international market. (TVP) "was established in 2004 as a major contender in the audio visual industry in the twin island Republic of Trinidad and Tobago". The future in Tobago anticipated by small video production companies such as TVP appears to be in providing services to the hotels, restaurants, and the secretaries and managers of the Tobago House of Assembly. Companies of that scale and with that business model 'are not very familiar with competition and copyright and need to invest more time to get this specific knowledge'. Tourism also plays a vital role in the growth of a profitable exchange for both producer and consumer, and 'here is where strict regulations should be put into place ensuring quality and value'. An unwillingness to learn is also pervasive but, 'for overall development of the industry and ultimately our people, greater emphasis needs to be placed on public awareness. Respect for each other, appreciation for the industry and honesty as a people should be paramount. As the old adage goes, 'knowledge is contagious!'"

6.3 Motion Picture, Video and Sound

Motion Picture, Video and Sound is a major sub-class of activities in the global copyright-based sector and a sub-class of considerable significance in Trinidad and Tobago. It is generally difficult to separate from the sub-class Television and Radio, mainly because the latter employs many of the outputs of the former. We classify in Table 6.4 following the CPC/ISIC, but estimates relate to the captioned items.

Regarding the current profile, at <http://www.trinidadandtobagofilm.com/filmindustry.asp>, the Trinidad and Tobago Film Company observes that 'Trinidad and Tobago's film sector began emerging in the late 1950s to early '60s and by the late '70s, there were a handful of local productions, both feature film and television.' As of January 2007, the industry 'consisted of 12 production companies; 33 companies offering production support services; nine television stations,' employing 900 persons altogether. Industry components and occupations cover the usual range:

- Creators – screenwriters, film directors, art directors, actors, directors of photography, animators, music composers, editors;
- Production – acquiring the rights for a property, assembling the creative team, securing financing, developing the property and arranging distribution;
- Distribution – local, regional and international;
- Exhibition – theatrical (cinemas, DVD/video outlets) and non-theatrical (schools, government, and other institutions);
- Broadcasting – television, direct television, cable, pay-per-view, specialty and conventional channels.

None of the listed activities are documented and incorporated into the SUT 2000, despite the fact that, even before 2000, at least a fledgling industry was emerging rapidly in both film and video. Indeed, the Trinidad and Tobago Film Company (TFFC), itself founded in 2007, reports that in 2000, one 'international feature film' was produced, 'The Mystic Masseur' (a Merchant/Ivory production, 2000), and another film, 'Calypso Dreams' was delivered only two years later in 2002 (<http://www.trinidadandtobagofilm.com/filmindustry.asp>).

Moreover, before 2000, up to 15 films were produced in the country, some in Tobago. The TTFC is optimistic about the future of film in Trinidad and Tobago, and it would be interesting to upgrade the record and see what the performance prospects might be from the standpoint of the fundamental problems of development of the Trinidad and Tobago economy. However, an important lesson already to be learned here is that in determining what is to be monitored, significantly greater weight must be given to the speed of emergence of the activity and the degree of reliance on intellectual property (hence domestic capital), than is given to industry size.

Table 6.4: Motion Picture, Video and Sound

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211	9611	Audiovisual and related services	1. Sound recording services; audio post-production services	Core
9211	9612		2. Motion picture, video tape, and television production services	Core
9211	9613		3. Audiovisual production support services	Core
9211	9614		4. Services related to the production of motion pictures and television and radio programmes	Core
9211			5. Motion picture and television programme distribution services	Core
9211			6. Film and video post-production services	Core
9211			7. Other services related to the production of motion pictures and television and radio programmes	Core
9212	9615		8. Motion picture projection services	Core
9212			9. Video tape projection services	Core
9214	9631		10. Services of performing artists	Core
9214	9632		11. Services of authors, composers, sculptors and other artists, except performing artists	Core

Source: TTSNA, WIPO (2003)

6.4 Radio and Television

The sub-class of Radio and Television is one of the most vibrant in the copyright-based industries of Trinidad and Tobago. There are 30 radio stations and 11 television stations supplying content and broadcasting services in Trinidad and Tobago. Of these, two radio stations and one television station operate out of Tobago, but typically do not broadcast content to Trinidad (Table 6.5). Stations in Trinidad generally broadcast content across the nation and sometimes well into the Eastern Caribbean island chain.

The CPC/ISIC product and industry classifications are as documented in Table 6.6. As indicated above, in practical calculations these would have to be read as specific to the activities supplied by Radio and Television. Further, as in the case of the other segments of the audiovisual sector, no data are supplied on Radio and Television in the SUT 2000, notwithstanding the high visibility and rapid growth of these activities in the economy well before the year 2000. However, significant information can be gleaned from the profiles survey.

Table 6.5: Radio and Television in Trinidad and Tobago

CATEGORIES	TRINIDAD	TOBAGO	T&T
RADIO	28	2	30
TELEVISION	10	1	11

Source: computed

Table 6.6: Radio and Television Broadcasting

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211	9611	Audiovisual and related services	1. Sound recording services; audio post-production services	Core
9211	9612		2. Motion picture, video tape, and television production services	Core
9211	9613		3. Audiovisual production support services	Core
9211	9614		4. Services related to the production of motion pictures and television and radio programmes	Core
9211			5. Motion picture and television programme distribution services	Core
9211			6. Film and video post-production services	Core
9211			7. Other services related to the production of motion pictures and television and radio programmes	Core
9214	9631		8. Services of performing artists	Core
9214	9632		9. Services of authors, composers, sculptors and other artists, except performing artists	Core

Source: TTSNA, WIPO (2003)

6.4.1 Local Content on Television

The 11 television stations are important for many reasons, but the most important of these is the production of local content and marketable style, including news, that has the potential to profitably penetrate the regional and international market for information. Both radio and television provide marketable content that has as one of its attractive features the immediacy of communication to the end-user. The advantage of television is the power of visual graphics, dramatisation, light and sound, combined with effective interpretation. However, since a key to success is the uniqueness in the way these attractive combinations are put together and marketed, stations in a country like Trinidad and Tobago have an excellent chance of succeeding on the global market if they can define styles that are attractive to audiences beyond the nation's boundaries.

In the case of Tobago, that same principle applies to the island's borders. Ultimately, this is achievable only with high levels of investment in information production, editing, and sharing by local professionals and actors, backed by careful market research, since the skills of the reporter, editor, and producer must define jointly what the audience wants to know, see, and hear first, as well as know, see and hear most. All of this is standard fare. What must be added, in the light of the estimates generated from the baseline SUT model, is that it is the reusable content, in the sense of content produced and used as input by other content developers and suppliers to the end-user, which must be the primary target – content that serves as capital, so to speak.

While all local television stations have addressed some aspects of these initiatives, it is Gayelle that appears to have gone farthest along the correct path in confronting the challenges of focusing primarily on local content creation, guided by a judgement about what is important to local audiences. However, knowledge of what local audiences want to see and hear is less important than knowledge of what the regional and international audiences want to see and hear, and knowledge of what these audiences and regional television and radio houses will repeatedly reuse in their own production systems. The interview with leaders in this copyright segment is accordingly reproduced here extensively.

6.5 Radio

What is said about television is applicable to radio, except for the visual implications. Further, radio has the advantage over television of being much more mobile and distractive, demanding only attention by hearing. Radio also has its own advantageous versatility; there can be talk radio, news radio, music radio and so on, all of which can deliver effective content, given reliable information about audience interest and in accordance with the skills of the news and information editor. In that light, and according to industry leaders who were interviewed in the profile surveys, radio generally and talk radio in particular has hit on a strong

On Gayelle: Local television production houses were established due to the paucity of local content available on television stations. The television house Gayelle (founded in 2004) is one such local house. Content is 'king' in radio and television and, together with Banyan, one of its shareholders, Gayelle has created the largest repertoire of locally created programming in the Caribbean industry.

On key challenges: Nevertheless there are many challenges to be addressed if this is to be the path to the future. Dwayne Cambridge, current CEO, contends that many of the challenges of developing local content 'could be overcome if there was real support for local culture at the governmental level.' He asserts that the introduction of local content quotas, which would mandate that a certain percentage of indigenous programming be aired on television, and related incentives such as tax breaks, would go a long way in preventing the norm of foreign indoctrination and make it more attractive for advertisers to sponsor programming: 'If local legislation doesn't change to demand that a certain percentage of local content be aired, then people will always be fed foreign programming much to the demise of our local industry.'

The cost barrier: Another challenge is the very high cost to produce top quality local shows, Cambridge observed: 'Very few high quality players exist so the price for local production is very high; it costs around TT\$50, 000 to produce one show so, if the market was opened up and more people felt it worthwhile to properly train, as cameramen etc., then the quality of programming would increase and market receptivity would also increase.'

Mr Harris's view: Mr Harris, for his part, suggested that: 'one way to improve the current situation would be for the government's broadcast network Caribbean New Media Group (CNMG) to adopt a free market position and make their studios available for independent producers to produce their shows. New business models are being developed to sell content to the Caribbean Diaspora and the wider world. Already, strong links are established with the European market through Sky TV, which can distribute local programming to an estimated audience of 28 million people. There are also talks with countries such as Nigeria and Ghana to enter into distribution deals. Further plans also surround the creation of new ways to monetise content online, whereby consumers can pay to download or subscribe to content.'

business model in Trinidad and Tobago, and is growing rapidly, based heavily on profitable delivery of local content. The experience and trajectory of Radio Tambrin in Tobago is a good example of how to get onto this general development path and stay on it, whatever the home base of the station.

The experience of the radio stations suggests that an immediate challenge is the limitation of bandwidth, as radio is moving in the direction of telephony and the internet. This is technology-driven change, and as it occurs there will be a growing need to understand and deploy the value of copyright created in the process. In that light, industry leaders are seeking to have the Trinidad and Tobago Broadcasters and Publishers Association (TTBPA), the industry's umbrella organisation, assist in positioning the industry and its members to grapple with, and take advantage of, these developments.

6.5.1 *A Profile from Tobago – Radio Tambrin*

Radio Tambrin, a radio station broadcasting out of Tobago, commenced operations on the 8th of June 1998. It was founded by Mr and Mrs George Leacock, two visionary Tobagonians who recognised that it was difficult for people in Tobago to find out what was actually happening in Tobago. Radio Tambrin is a community-based radio station whose mission was, and still is, to bridge the communication gap that exists within Tobago.

The fact that Radio Tambrin was a new business concept on the Tobago landscape created a challenge for the founders to attract capital funding from financial institutions. They were able to attract venture capital funding from the Venture Capital Incentive Programme (VCIP), a programme set up only two years earlier in 1996 by the government of Trinidad and Tobago to bring investors and entrepreneurs together in an arm's length equity investment relationship. To date, Tambrin remains the only Radio Station to be owned by a Tobagonian, wholly operating out of Tobago and the first and only Tobago-based business to successfully attract venture capital funding.

The station operates 24 hours a day, 7 days a week, providing news broadcasts, call-in and discussion programmes, sports reports and music. Similar to other radio stations, it generates revenue from its sales of advertising spots. The nature of its business requires that it interacts with COTT. The station is required to pay copyright fees to COTT annually for the use of music from local and international artists. This arrangement is seen as necessary so that artistes can be compensated for their works; however, it is considered that COTT's method of calculating artist fees leaves the less popular artists undercompensated for their music.

Radio Tambrin has been meeting its objective as a community-based radio station, as it is able to adequately provide information to residents and visitors to Tobago. Due to changes in regulations, the station took a decision to apply for a National Licence, which required it to broadcast/transmit to 90% of the country; because of the topography of the country, an additional capital investment was needed to allow it to procure equipment necessary for the station's signal to reach Trinidad and Charlotteville, using a single frequency. The application process was both long and complicated and, on its completion, Radio Tambrin lost its frequency, which had a serious impact on the station as its brand was inextricably linked to its broadcast frequency. However, despite this challenge, Radio Tambrin was able to successfully navigate this hurdle and today has an even stronger brand identity as it has a dedicated listenership in Tobago and Trinidad.

The strength of the Radio Tambrin brand is so great that it has allowed the station to successfully migrate into other areas. For example, during the Carnival season, each year for the last 12 years Radio Tambrin has been able to host the biggest Carnival event in Tobago, called *Tambrin Soca under the Samaan Tree*. Radio Tambrin has become a household name among citizens of all ages, not only in Tobago but also in Trinidad. The station's local success has created a demand from locals residing abroad for it to have a presence beyond the shores of Tobago and Trinidad. This demand is met via the internet: Radio Tambrin can be listened to on www.tambrintobago.com. The presence of its international listenership is evident when persons from other Caribbean territories, Germany, Switzerland, etc., participate in the station's call-in programmes.

The major challenge Radio Tambrin saw facing the sector was the way the broadcast industry was regulated and managed by the TATT. The opening up of the telecommunications sector resulted in a number of individuals and firms obtaining radio licences though the size of the advertising pie remained constant. Today, a number of the smaller radio stations have gone out of business, or have brokered relationships with larger players in the sector. This has created an artificial monopoly, as advertisers are now looking for firms that have multiple stations on which to purchase advertising spots. Further, the internet has changed the nature of competition in the sector. Traditionally, an individual or a firm wishing to participate in the radio broadcasting sector had to apply for a radio licence, pay a number of fees and invest in broadcast equipment. Today, anyone can simply set up a broadcast entity using the internet and establish a global presence without a substantial business investment. Despite these challenges, Radio Tambrin continues to forge ahead with a brand presence that can only get stronger given its mission.

6.6 Photography, Visual and Graphic Arts, Related Professional and Technical Services

The component Photographic Services, Visual and Graphic Arts and Related Professional and Technical Services forms part of the Personal Services sub-class documented above. The relevant ISIC codes are reported in Table 6.7. The component represents an industry into which the primary initial cost of entry is the cost of obtaining adequate education about the technologies of the industry and in the skills to use them, along with the cost of acquiring related skills in financing, marketing, management and social relations.

Much of the basic cost is borne by government, since art has long been a significant subject in the secondary school system since the 1960s. Thus, there is fairly widespread participation and correspondingly wide sociological variety in the industry; there are participants who work from home and those who establish storefronts and studios complete with labs.

There is also a wide range of specialisations such as: part-time and full-time artists and photojournalists; freelancing persons whose only additional capital outlay is a digital camera or a carving knife; and persons specialising in a wide range of subjects – portraits, fashions, weddings, underwater scenes, products for display in a digital environment, and the like. As virtual mall environments take over the marketing of products, the illustrative capacity of the industry is becoming increasingly important. Correspondingly, there is a fairly wide fee structure, including fees for creativity and pure usage fees tied to how photographs and other art will be used, both of which allow pricing by product differentiation and the extent of transfer of copyright.

Table 6.7: Photography, Visual and Graphic Arts, and Related Professional and Technical Services

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7494	8381	Photographic services and photography processing services	1. Photographic services	Core
7494			2. Portrait photography services	Core
7494			3. Advertising and related photography services	Core
7494			4. Action photography services	Core
7494			5. Speciality photography services	Core
7494			6. Restoration and retouching services of photography	Core
7494			7. Other photographic services	Core
7494			8. Photography processing services	Core

Source: TTSNA

Spatially, the profile is as follows:

Tobago

In Tobago, the industry is quite small with two established photo studios, one company specialising in event photography, one finishing lab and two established integrated art galleries, dealers and studios. The art industry is not well-established in Tobago, but there is a growing local supply of carvings and paintings. None of the country's prominent professionals operate from Tobago.

Trinidad

It is in Trinidad that a truly viable industry has been established. The establishment count is as follows – 36 Photo Studios; 18 established businesses providing an integrated service in commercial, industrial, portrait and events photography; 17 specialising in photocopying and scanning; 15 photo finishers (retail); 15 art galleries, dealers & studios; eight picture frame dealers; and one commercial artist. Some reasonable sense of the scale of the industry can also be obtained from the fact that, for visual artists (who produce paintings and photography as well as sculpture and ceramics), institutional organisation is provided by the Art Society of Trinidad and Tobago established in 2004, which has approximately 400 members on roll, of which 200 are financial members.

The Art Society does not represent all the artists in Trinidad and Tobago, as there are a few other conglomerations or organisations of artists in the country. However, there are very few artists recognised at the top of their field who were not part of the Society at some period of their development. The typical artist has basic secondary education but many have pursued tertiary education in areas other than art, and a few have formal education leading to a degree in the arts or special programmes in their preferred art form.

In the sub-class, success typically depends on access and exposure to the foreign market since the local market for these products is small. A few Trinidad and Tobago artists have gained international recognition and have established a footprint in the international arena. The most prominent operating strictly from home are LeRoy Clarke, whose 'Douens' masterpiece has been acclaimed internationally for many decades, and Peter Minshall, who has won similar international acclaim for his works in the Carnival Arts. Notable among those achieving acclaim from abroad are Michel Jean Cazabon, James Isaiah Boodhoo, Boscoe Holder, Geoffrey Holder, Carlisle Chang and Wendy Nanan. Other artists have relationships with foreign galleries and regularly have pieces at exhibitions in Canada, Maryland, Atlanta and Barbados. Some, like Peter Minshall, have a cross-sectoral approach in that they draw, paint and design for the Carnival industry.

Besides Carnival, there are few opportunities for local artists to present their work. However, there is some opportunity to display work in the hotels and guest houses of Trinidad and Tobago. The Art Society building has an exhibition gallery, where non-commercial exhibitions are held and artists get a chance to receive a small commission, which makes it more accessible to start-ups. Tourism offers significant potential, much

of which is linked to Carnival. The Art Society observed that 'the Trinidad Hilton has an excellent collection of local art and its management has historically supported local art. By contrast, the Hyatt hotel reflects its international connections and local art is not present.' Some smaller hotels did portray local art and commission murals from artists for murals. However hotels and guest houses were a significant untapped resource that was accessible to the sector. A major drawback was that neither Tobago nor Trinidad had a substantial investment in public art statues, murals or carvings; and going to the gallery and museum might not be on the agenda for most people. The Art Society maintained that a substantial market could arise from recognition that 'the creative sector can help with problem communities so that the government would have to spend less in communities.'

In respect of the future, it observed:

'The Art Society is seeking to enhance collaboration with the private and public sectors in their future work. There are proposed workshops on art appreciation and the target groups are the diplomatic corps, core Ministries, and media houses. Seminars on copyright are proposed for various regions in Trinidad and Tobago. The target audience is expected to include corporate T&T, individuals with interests in the art, and persons peripheral to the Art Society with cross-sectoral involvement.'

With respect to the challenges facing the industry, the Art Society observed that they were both institutional constraints and business-related concerns. At the institutional level, the picture was not bright because of the 'voluntary nature and the lack of a secretariat in the Society to interface with persons who have issues', and because 'the work of changing the public perspective requires management capability and funds, which the society does not have'. So, there was no umbrella programme of timely education, training and marketing for entrants into the professions. At the level of professional practice, the Art Society was of the view that 'as a general position artists are not aware of their rights.' Concerns regarding copyright abounded and artists were not aware of their individual responsibility to protect their rights, looking instead to 'mediation services for copyright issues within the Ministry of Legal Affairs.' Further, as art had attracted an image of elitism, there was little public support for the industry beyond what was provided for Carnival, and 'the Art Society receives an annual stipend of TT\$20,000 from government', which was a measure of the fact that 'the creative arts is not a policy priority when compared to what decision-makers decide they would spend resources on. There is a provision in the corporation tax act of 150% tax relief from which no one has benefited as yet. The Ministries of Culture and Finance have just prepared the framework for operationalising this incentive.' Government was pursuing the idea of an artist registry and of undertaking the assessment of the value of the work at galleries.

6.7 Software, Databases and New Media

This sub-class of activities focuses on a broad set of products and services related to methods of gaining access to information, storing and using it. The class is growing in importance in all economies across the globe. It includes computer software, relational and other databases, and a range of digital and online supply media that feature interactive access and have come to be called *new media*. New media includes intangible and virtual reality environments such as the internet, websites, streaming of audio and video content, chat rooms, online communities, computer multimedia, computer games, CD-ROMS, DVDs, USB keys, web advertising and, more recently, the 'cloud'. Included too are the interface between the telephone and digital content that is 'voice over the internet protocols' (VoIP), the contents of digital cameras, mobile computing, and a rapidly growing set of information communication technologies that provide the basis for the link between computers, handhelds, cell phones and other digital instruments. New media contrasts with older analogue access technology, such as television and radio access or print and other static representations and modes of access to information.

Table 6.8 documents how the sub-class is coded in the CPC and ISIC. However, no estimates are as yet available at this industry level since the category does not even appear in the classifications of the SUT2000.

Table 6.8: Software and Databases, New Media

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7221	831	Computer consultancy services	1. Software publishing	Core
7229			2. Other software consultancy and supply	Core
7240		Database activities and online distribution of electronic content	3. Assembly of compilations of data from one or more sources 4. Provision of online access to proprietary databases 5. Online database publishing 6. Online directory and mailing list publishing 7. Other online publishing, including e-books 8. Web search portals 9. Internet search sites, internet game sites, internet entertainment sites	Core

Source: TTSNA, WIPO (2003)

A number of companies have performed extremely well in this industry. Profiles of two standouts are presented here to give a sense of how the industry works and its perspectives going forward.

The Inspired by God (IBG) Phonic Programme

IBG centres its activities on the usage of phonics-based exercises and is an educational product developed in the Republic of Trinidad and Tobago by IBG Educational Products. In 1994, its creator, Mrs Olive Reyes, observed the need to develop programmes to stimulate literacy, develop numerical skills and writing skills, and also develop critical thinking skills in students. The results of the project were astounding and strategies to reach a wider audience were conceived. The journey to market was not as smooth and involved a cost of TT\$5000 for the actual production. Financial institutions were unwilling to offer financial assistance and other sources for seed capital were sought.

Today, this business venture has advanced its output from cassette tapes to CDs and DVDs and has registered businesses in Barbados, the United States of America and the United Kingdom. The anticipated support from government and educators was not forthcoming. It was recognised that an alternative market had to be created. The first classroom package was actually purchased by a school in the US and not in the country of origin as was expected. A pilot project was conducted in November 2003 with two junior secondary schools and another one was also conducted with the Youth Training Centre (YTC). The worst-performing students were selected to participate in the project. Within one week, tremendous improvement was evident in the students' performance.

One of the company's goals is to 'capture' Trinidad and Tobago and eradicate illiteracy by having the IBG phonics programme in every school. Achieving this would involve overcoming simultaneously the 'foreign is better' mentality and the learnt beliefs on issues relating to learning disabilities, including 'dyslexia' and the notion 'academically challenged'.

Although IBG Educational Products continues to receive accolades from users, its goal of partnering with the education authorities in Trinidad and Tobago to assist with illiteracy eradication remains elusive. The inability to secure overdraft facilities from the company's banker is testimony to the inefficiencies of the system. The research for the new writing programme took three weeks but the development took three years. The refusal of the commercial banks to provide financial products such as overdraft facilities is contributing to the added pressures of operating in an unstable economy. The organisation recently approached and received favourable feedback from the Export/Import Bank (EXIM Bank) to secure funds for the acquisition of equipment that is needed to increase production levels and satisfy the forecasted increased demands, expected from entry and expansion into new markets.

Under the Protection against Unfair Competition legislation, any act or practice in the course of industrial or commercial activities that causes or is likely to cause confusion with respect to another's enterprise, activities, products or services shall constitute an act of unfair competition. Currently, the company is facing difficulties on that front in order to sustain its business. A clear comprehensive competition policy supported by enforcement of the law is critical. The policy should address unacceptable business practices that nullify the essence of competition. Further, incentives for research and development to produce innovative products and strategies in the education sector are essential for the country's social and economic development. Seed capital must be sufficient to chart the company through all stages of the development process. The 'foreign is better' mindset has to be changed to allow local products to grow and contribute socially and economically to the local communities.

Teleios

The software development and mobile solutions company, Teleios Systems Ltd, was founded in 1997 and today is one of the region's most innovative and pioneering technology services firms and, in addition, the first Microsoft-Certified Independent Software Vendor in the English-speaking Caribbean. The business branched from pension software into corporate websites and the emerging Trinidad and Tobago mobile phone marketplace, providing SMS-delivered content and services to users across the country's cell networks.

Teleios serves a wide range of clients spanning industries such as finance, telecommunications, manufacturing, education and government, providing services that assist its clients to quickly and effectively deploy business solutions that leverage the power of the internet and mobile communications technologies. Services include website and electronic commerce solutions, interactive media, custom software and mobile telecommunications solutions based on its flagship Message Central Mobility Suite.

Teleios' strategy is built upon the following elements:

- A focus on 'thinking' underpins the professional successes the company has achieved. Innovation and creativity often come because the environment allows or encourages it to happen rather than plans for it to happen.
- Fortunately for Teleios, this ideology was known to, and accepted by, the then Telecommunication Services of Trinidad and Tobago (TSTT) Executive Vice President for Mobile Services, Michael Barrow, who provided the opportunity for Teleios to 'plant a seed.' Mr Barrow, who is described by the Chairman of Teleios as a man 'who I have not quite met one like him in Trinidad and Tobago', understood that innovation is a long-term process, requiring consistent, long-term enduring support.
- The 'seed' in question was an idea to distribute information using SMS, which Mr Hinds initially thought was original but subsequently found out was not. TSTT was approached with the idea that a solution could be built to disseminate information. Teleios was presented with an opportunity that far too often will not be allowed in Trinidad. That opportunity was the planting of a seed, with time to nurture and perfect.
- The results of that 'opportunity' was the formation of a partnership between Teleios and TSTT in 2003 that allowed for an SMS-based content solution called Message Central to be provided to TSTT's subscribers. Message Central is the service delivery engine behind value-added SMS services on the mobile network in Trinidad and Tobago.
- Recognising system inefficiencies in Trinidad and Tobago, Teleios has taken a keen interest in the education system, not just from the standpoint of facilitating delivery of the curriculum but from the perspective of changing inefficient mindsets. Teleios devised strategies and products to overcome such thinking, such as the Code Jam programme. Code Jam is a competition to build programmes in which students compete in teams to build real world solutions under particular time constraints. The Code Jam Programme has created a platform for seeds to be planted. For the first time in years, local teams participated in the Imagine Cup – the world's premier student technology competition, hosted by Microsoft. This year five teams participated and every single team used Teleios technology to help with their competitive efforts.

The outlook for the industry and Teleios is bright. That notwithstanding, the industry has built-in challenges. In small countries, innovators operate in an environment where most of the persons they interact with,

from government to private businesses, implicitly assume that software solutions should be imported. Unfortunately, in Trinidad 'foreignness' is a qualification: even if a local business had a similar history and growth pattern that essentially was no different from that of the foreign company, the local company would have to climb a steeper hill. Initially, Message Central provided service to fewer than 200 subscribers. The service was provided from a clone PC. Commercialisation required the use of servers, so the company's banker was approached for financing. The negotiation process took more than a year and the loan still was not granted. It became necessary to seek funding from another bank, at which the negotiation process also took another year, but the finance was granted.

The future strategy of the company includes the development of information technology clusters and provision of opportunities for talent development.

6.8 Advertising Services

The sub-class Advertising Services is best described as a set of cross-cutting activities that affect all other aspects of the political economy in some measure. A typical full-service advertising agency would provide a range of products as listed in Table 6.9, which defines various aspects of the creative promotion and advertising process:

- Planning, creating and placement services of advertising;
- Purchase or sale of advertising space or time, on commission; and
- Sale of advertising space or time in various media, with or without commissions.

The underpinnings of such services include marketing research and consultations to carry out appropriate design and placement, then consequent public relations and promotions, branding and definition (or creation of identity), and goodwill. Media strategy must be designed, related scripts have to be written, and pictographs and productions have to be prepared for relevant media such as audio, video and print. These activities translate into the visible practices in television, radio and print advertising. The internet is continually opening up a new world in the social networking space, one that involves full-service digital direct mailing with digital images that are fast replacing the older, print-based direct mailing services. A wide spectrum of professional skills is involved in delivering such services, including crisis management, planning, designing, branding, script writing, photography and art (both manual and digital), acting, comedy, music making, computer programming, graphic design, web designing, video and audio engineering, traditional management, podcasting and marketing.

The activities, classified and coded in Table 6.9, are measured in the SUT 2000 in the wide sub-class of services described as Business Services (7010, 7430, 7111-7129, 7492). Only the 7430 activities in the table are measured. The services are:

- Sale of other advertising space or time (except on commission);
- Planning, creating and placement services of advertising;
- Purchase or sale of advertising space or time, on commission;
- Sale of advertising space or time (except on commission).

Still, consideration of certain aspects of the performance of the Business Services sub-class can give a reasonable estimate of the type, if not the size, of the contribution of the advertising industries. This sub-class used TT\$1637.2 million of intermediates in 2000, generated TT\$683.9 million in wages and emoluments, shows no record of taxes on production, received no subsidies, used up TT\$145.8 million of fixed capital in generating the output and produced TT\$2244.3 million of operating surplus from which retained earnings and the cost of capital could be met. Accordingly, gross value added amounted to TT\$3074 million, or about 6.2% of GDP, 9.82% of operating surplus, and 3.5% of the domestic wage bill. The relatively low share of wages points to a skill-intensive rather than a labour-intensive sector. It generated very few exports and achieved a very high import productivity signature of 29.8 (value added per dollar of imported inputs used), which is also among the highest of all sectors in the economy. This high foreign exchange saving capacity is closely related to the extraordinarily high share, 96%, of domestic capital in the *total* (fixed and circulating) capital consumed in the industry's production process.

The performance path of this sector as a whole, and advertising services in particular, makes it an attractive target for national development programming, including expansion as service exports, using the internet.

The guidance from the international data is that, in many countries where WIPO-sponsored surveys have been carried out, the advertising industry has proven to be the largest or fastest-growing creative industry in the core group, but to be relatively small in it, providing an average of 7% of the core copyright GDP and employment. The rate of growth is linked to the fact that the advertising industry provides services to many other industries. The dynamics of this industry reflects this level of connectedness, as it often follows general trends in major demand sectors, such as finance, insurance and construction.

Table 6.9: Advertising Services

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7430	8361	Advertising services	1. Planning, creating and placement services of advertising	Core
7430	8362		2. Purchase or sale of advertising space or time, on commission	Core
7430	8363		3. Sale of advertising space or time (except on commission)	Core
2211; 2212; 2219			4. Sale of advertising space in print media (except on commission)	Core
9213			5. Sale of TV/radio advertising time (except on commission)	Core
7230; 7240			6. Sale of internet advertising space (except on commission)	Core
7430			7. Sale of other advertising space or time (except on commission)	Core
8369			8. Other advertising services	Core

Source: TTSNA, WIPO (2003)

The high level of economic performance of the advertising sub-class was delivered by many outstanding firms. Here are some profiles:

Trinidad

All Media Projects Ltd

Led by Alfred Aguiton, and better known in the local advertising industry as Ample, All Media has been one of the most successful names in the advertising and public relations sector since 1974. Through its extensive portfolio of services, it has demonstrated a unique ability, not only to offer the core services of an advertising agency, but to continuously modernise and update its services. Apart from magazine advertisements, television commercials, posters and brochures, Ample has undertaken to keep updating its operation, and assists clients in both the public and private fields in the realm of social media, powerpoint presentations and website design, to name just a few.

One of the organisation's key ingredients to success is hiring personnel with proven track records and knowledge of global cutting-edge standards. The company considers that university training would be more useful if students graduated with a skill set more pertinent to the advertising and public relations sector and if the value of hard work and self-sacrifice was more deeply ingrained. One of the challenges in the industry is an unsophisticated clientele who are at times unsure of the importance that effective marketing can play in their organisation's success. Mr Aguiton contends, 'Clients must themselves be familiar with international standards of the profession and be able to appreciate that advertising and proper public relations are an indispensable component in the private and public sector matrix'.

The sector operates quite well under the umbrella of its Advertising Agencies Association, which has drafted policies and guidelines on intellectual property and, as a result, Ample has adopted the policy whereby it retains all of its intellectual property unless otherwise negotiated. However, Mr Aguiton admits that the sector would 'welcome governmental assistance on matters such as general legislation that sets and enforces standards, an adjustment of a recent policy that has the Government Information Services (GISL) handling the media bookings of government advertisements and an adjustment of rules regarding tendering for government matters.'

Collier, Morrison and Belgrave (CMB)

CMB has been operational for over 40 years. It is a full-service advertising agency engaged in all aspects of communication and providing creative solutions to clients. CMB considers itself as being in the business of crisis management in advertising and communications; radio and television production; media management (including placement of advertisements in the newspapers) on behalf of clients; and event coordination/execution.

On Integrity: CMB has received several local, regional and international awards and is serving both the government and the private sector. Nonetheless, it stresses that more important than the awards are values such as integrity and consistent high-quality work. As a result, the company will not entertain jobs based on political climate. The company's development issues heavily inform its work, so its staff is exposed to sociology, politics and economics (including the Millennium Development Goals (MDGs) on poverty) for the purpose of adding substantive content to its designs and other creative work. In keeping with this, CMB recently completed a *pro bono* project with the Trinidad and Tobago Beverage Alcohol Alliance, whose objective was to encourage a code of conduct towards alcohol, alcohol consumption, and the use and overuse of alcohol among young people.

The Value of Copyright: CMB is a member of the Advertising Agency Association of Trinidad and Tobago. As is often the case in advertising, CMB resorts to different types of intellectual property protection and protected products and services. CMB operates in an audio and visual communication environment, as well as in the print and electronic media where print media includes press, posters and billboards, while electronic media includes radio, television, social media and digital (screens).

Challenges: Due to the world financial crisis, companies have been cutting their advertising budgets to enable them to spend less and show more profits on their books. The lack of education on design is a challenge for developing design capacity. CMB addresses the changes in the advertising/communication landscape and seeks to adapt accordingly. It also recognises the absolute need for continuous learning for all staff members and believes that the intellectual capacity of each member of staff must grow almost daily. In the meantime, it faces the challenge of clients who automatically cut their budgets when things are not going well, when all the evidence suggests that they should be increasing spending on advertising. Advertising is an industry that is linked directly to return on investment.

Copyright Challenges: Copyrighting is a serious challenge in the industry. There are no policies in place to protect copyrighting for advertising agencies in Trinidad and Tobago. Advertising agencies are only able to charge clients for the use of imagery, not for the ideation behind the creation. COTT needs to engage in the protection of the rights of advertising agencies as well.

On Exporting: CMB is already a global player. It books media regionally, handles regional clients, and has done projects internationally (e.g., in Europe and the US). The industry is changing in such a way that advertising agencies are seen as very expensive and parasitic, and the 'value' conversation is no longer there. The rise of social media will change how work is being done in the industry. There is therefore need for serious discussion on the implications for the future of the industry.

On Use of Domestic Capital: CMB works with active contemporary artists in Trinidad and Tobago. The industry hires 85% of the graphic design/visual communication practitioners coming out of educational institutions in Trinidad, especially from the John Donaldson campus of the University of Trinidad and Tobago, The University of the West Indies, and foreign universities operating in Trinidad. There is an urgent need for creative industries organisations in Trinidad and Tobago that would teach and train persons to become professional designers. As it stands, there are no advertising schools in Trinidad and Tobago, unlike the case in developed countries. As a result, there is no real understanding of the levels of professional aspiration or of job roles needed in the industry.

Looking Ahead: In terms of future prospects, the company considers that the Tourism Development Company should facilitate the process and play a significant role to become a global player operating out of Trinidad and Tobago; there needs to be the opportunity to meet and greet clients. The Telecommunications Services of Trinidad and Tobago should be a partner to the advertising industry, not only as client, but also as facilitator of visits to technology conferences, which can assist in marketing, trade promotion, and regional and foreign investment.

Tobago

StoneCold

StoneCold has been in the radio-announcing business for the last 26 years. Tambrin, the sole Tobago radio station, has under 5% of the Tobago market and an even lower share of the national market. Therefore, it is almost impossible to pay each employee a good salary. StoneCold has been able to make additional money by marketing his shows and, as a result, he gets a 10% commission associated with advertising sales. Additionally, he has successfully carried out private voicing for advertisements.

StoneCold uses the traditional method of copyrighting: writing the intellectual property entity with descriptions and samples where applicable, mailing that information to yourself, and keeping the unopened letter for presentation in court, if necessary. Initially, StoneCold did not see the benefit of copyrighting entities like words and phrases, but after some consideration he agreed that it would expand the industry and provide additional sources of income and, therefore, inspiration for creativity. He stresses, though, that the copyright organisations need to find a mechanism to accurately capture what is being played on the air. This would ensure that musicians are appropriately compensated based on airplay.

Nu Impact Solutions

Mr Jones, the entrepreneur behind Nu Impact Solutions, says that this is a unique advertising business launched in 2010. The business provides affordable advertising possibilities to its clients via an eBillboard. It offers advertisement display as well as design services to its clients. Nu Impact Solutions has experienced challenges such as cash flow, competition, staffing, training and location. However, the pace of the business thus far and its potential for the future outweigh any challenges that have arisen or may arise.

When the company introduced it, the concept of the eBillboard was new to Tobago and, as a result, individuals who had sufficient understanding of the concept to sell the product to potential customers/clients were in short supply. Therefore, training of staff had to be arranged. Training was made available for the technical operation, management and maintenance of the eBillboard from the company where it was sourced.

In addition to adding more eBillboards locally, Nu Impact Solutions Advertising went on to create the *Island Link*, a full-gloss magazine that promotes Tobago businesses while highlighting what is happening on the island. Mr Jones is also exploring the possibility of reaching into the regional market on a franchise basis.

The company is not fully aware of the opportunities presented by copyright for the business.

6.9 Copyright Collective Management Societies

As indicated in Chapter 3, collective management is an important activity in the core copyright sector, complementing whatever efforts are undertaken by individuals to protect their intellectual property. Table 6.10 lists the coded activities under which collective management will normally be coded in the ISIC.

Table 6.10: Copyright Collective Management

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211; 9213; 9214	7332	Licensing services for the right to use non-financial intangible assets	1. Licensing services for the right to use entertainment, literary or acoustic originals	Core
7221	7331	Licensing services for the right to use nonfinancial intangible assets	1. Licensing services for the right to use computer software	Core

Source: TTSNA

The following collective management organisations are operational in Trinidad and Tobago:

- Advancing Writers Entertainers Singers on Music Endeavours Ltd (Awesome Ltd) – administering performing and reproduction rights.
- Copyright Music Organisation of Trinidad and Tobago (COTT) – administering performing and reproduction rights.
- Trinidad and Tobago Copyright Organisation (TTCO) – administering performing and reproduction rights.
- Trinidad and Tobago Reprographic Rights Organisation (TTRRO) – administering reprographic rights of authors and publishers.

COTT was the first to begin operations in January 1985 as a non-profit-making organisation of song writers, composers, lyricists and music publishers. It administers the public performance, broadcasting, communication to the public, mechanical reproduction and synchronisation rights granted by law to the creators and owners of original music. COTT has about 2500 members. It also has reciprocal agreements with all the major overseas societies and is a member of the International Confederation of Societies of Authors, Composers, Composers and Publishers (CISAC). Thus, it represents the worldwide repertoire of copyright music in Trinidad and Tobago. Both TTCO and Awesome Ltd have smaller memberships and a much more limited, essentially local repertoire, especially as they do not represent the international repertoire from Trinidad and Tobago's major trading partners such as the United States, the European Union, India and China and CARICOM.

In addition to the collective management organisations in music, there is also the Trinidad and Tobago Reprographic Rights Organisation (TTRRO) which was incorporated as a non-profit organisation on May 12, 2003. The members of TTRRO include publishers, authors, photographers, cartographers and composers (sheet music only). The current membership is 35, made up of five publishers and 30 authors. The organisation has been slow in getting off the ground in terms of issuing licenses to users, preferring to concentrate its first efforts on a membership drive and building public awareness in the country of its existence and its mandate. Of particular interest to the members of the TTRRO are the granting of licences to users in respect of photographic works, literary works and cartographic works. The work and mandate of the organisation have been endorsed by the Ministry of Legal Affairs and Book Industry Association of Trinidad and Tobago. The Ministry of Education and the National Library and Information Systems Authority (NALIS) have expressed their willingness to sign the appropriate licence agreements. The organisation is presently negotiating with the 3 major universities and several other tertiary education institutions, including the UTT and University of the Southern Caribbean (USC) to take out licenses. The International Federation of Reprographic Right Organisations (IFRRO), of which TTRRO is a member, has been instrumental in getting the organisation up and running by providing training and funding by way of a grant and loan. As of 5th March 2011, TTRRO has signed bilateral agreements with 17 sister societies including JAMCOPY of Jamaica and Bcopy of Barbados. With the increasing commercialisation of text and graphic works in digital form, the quantum of micropayments is expected to increase and the role of RROs will be increasingly important in ensuring that publishers and authors are rewarded for their investment of money and creativity. The existence of TTRRO at the beginning of the switch of commercial exploitation of textual and graphic works from paper to electronic format should ensure that authors and publishers in Trinidad and Tobago benefit from these new modes of consumption.

Great strides have been made in the collection of licence fees on behalf of rights holders. This is partly because of attitudinal changes of consumers, who are beginning to have a greater appreciation for intellectual property rights, and, in the area of music, partly because of the implementation of new software which makes it easier to monitor the music that is actually being broadcast as well as the accuracy of the logs of music played. Nevertheless, COTT contends that enforcement of intellectual property rights remains challenging, that professional organisations such as the Musician's Union and the Songwriters' Guild have important roles to play, and that government must recognise that it has the overall responsibility for law enforcement and has to deal more actively with piracy as well as public education about intellectual property rights.

6.10 Works of Mas

Works of mas is a growing and competitive business in Trinidad in which numerous Carnival bands, musicians, designers and promoters participate. Major investments are made yearly in the Carnival business. They spur economic effect in many related creative areas such as music, textiles, design, advertising, publishing, graphic and visual art, photography and others. Such investments are of utmost importance for the country, as they preserve traditional and indigenous art forms; are appealing to citizens, tourists and foreigners; and have great potential to generate jobs and value throughout the year. While Trinidad and Tobago's works of mas are protected under copyright law in Trinidad and Tobago, they are not in international copyright legislation and in most countries.

The National Carnival Bands Association (NCBA):

This Association was formed in 1958 and now represents the needs of designers, craftsmen, costume builders, wire benders, kings, queens, masqueraders and other persons involved in Carnival activity. Though the NCBA has been championing the causes of the Carnival fraternity for decades, it is constantly looking for new ways to engage with its members and the public at large and has recently employed an advertising agency to launch its social media marketing campaign. Secretary Wrenwick Brown contends that, 'Carnival on the whole is not marketed well; the industry has so much untapped potential. Many of us after Carnival remain just satisfied but at the NCBA we are aiming to really brand Carnival as a product of Trinidad and Tobago and through Twitter and Facebook we are aiming to tap into new markets.'

The Association has recently launched a Mas Academy, which is dedicated to preserving the indigenous art forms within Carnival, as well as to teaching the fundamentals of business. Graduates are capable of educating children in the art of sewing, designing, and band management. The Academy's global outlook is already reaping rewards as one of its graduates will be designing costumes for Toronto's Carnival later this year and another will be designing costumes for a local production of *The Lion King*.

The Mas Academy is dealing with challenges in terms of space and support from the government. The organisation contributes to employment year round, by supplying costumes, masqueraders and other Carnival characters when the Ministry of Tourism requests them for cruise ships and for various cultural festivals, but it believes that more revenue would be generated from Carnival if the bigger bands did not import readymade costumes from India, China, Pakistan and other countries. It employs locals to actually create costumes.

The NCBA has also highlighted Intellectual Property law as an area which needs to be addressed. Brown observed: 'Back in the day when tourists came, everyone used to allow their picture to be taken but now people are realising that these pictures have some worth'. It is considered that the Ministry of Legal Affairs needs to distribute more information to shed light on issues of copyright, particularly when designers infringe each other's costume designs.

Island People:

The Carnival band *Island People* is one of the largest in terms of the number of younger masqueraders. One of the key ingredients to its success is the utilisation of young, dynamic and creative minds in all aspects of its organisation structure. The Carnival's potential to generate employment and secure revenue is not yet fully exploited. Band manager, Mr Lewis, observed: 'The government needs to see Carnival as an industry. There is no collective national effort to improve its value as a business product. It's only seen as fun, like some type of circus. But Cirque du Soleil is a big business.'

Lewis acknowledges that an aspect of contention between bandleaders and the government is the viewpoint that modern-day bandleaders like him are destroying the indigenous heritage of Carnival through their portrayal of what is popularly known as 'bikini and beads mas', as opposed to traditional characters. He believes that the government needs to change its outlook in this regard if Carnival is to survive in years to come.

He proposes that 'a permanent centre be erected where drummers, steelpan players, wire benders, and Carnival historians are employed year round so that the history of Carnival can be preserved. It should be mandatory for kids to attend so that they can understand Carnival from a holistic perspective.'

The imposition of tariffs has recently become a source of tension between bandleaders and government as the government has suggested that the importation of costumes is denying local citizens job opportunities. Lewis was vehemently opposed to this viewpoint, as he viewed the tariffs as nothing other than 'killing the industry, since the price of costumes will be sure to rise.' He suggested instead the implementation of 'a training programme during a five-to-seven-year period when young people are taught the intricate arts of wire bending, dyeing fabrics, etc., which would serve to generate revenue and employment over a much longer period, as opposed to the immediate imposition of heavy tariffs on the importation of costumes.' He further stressed that 40 to 60% of their headpieces and most of the costumes for male masqueraders were already being made locally.

Bands like *Island People* provide year-round employment. For events like Carnival band launches, they employ models, makeup artists, hairstylists, set designers, graphic and visual artists, special effects companies, bar services, cleaning crews, food service companies, security companies, and sound and light companies. *Island People* believe that the band can become a global player and compete internationally: it performs in many of the major Carnivals in the West Indian diaspora. The band has already registered *Island People Mas* as a trademark in Barbados, Jamaica, Canada, Spain and Italy and is now approaching Japan and the UK.

Extensive assistance is needed to shed light on intellectual property issues that arise every Carnival where the protection of works of mas is concerned.

7. Estimates of the Contribution of Copyright to the Trinidad and Tobago Economy

Using the system of national accounts for Trinidad and Tobago for 2000, 2007 and 2011, and the copyright factors estimated in Section 3, a satellite account for the copyright sector was prepared for the same years. As detailed in Section 3, the estimates of the copyright factors adopted for this study are based on preliminary responses to two surveys carried out in Trinidad and Tobago and one carried out in St Lucia, calibrated by considering the copyright factors used by studies made for other countries around the world following the methodology set out in WIPO (2003). Special attention was given to countries that appear to have an economic structure similar to that of Trinidad and Tobago – in particular, the Philippines, Brunei and Jamaica. The resulting copyright factors are reported in Table 3.11. Copyright factors for the core copyright sector, including works of mas, are all assumed to be 1. The estimates for the interdependent, partial and non-dedicated industries are broadly similar to those in most of the copyright sector studies conducted under the leadership of WIPO. The resulting details of the copyright satellite accounts for 2000, 2007 and 2011 include a listing of the items measured and the match-up of their TTSNA codes and their WIPO (2003) classifications and can be made available.

Regarding the analysis of estimates presented in this section, Trinidad and Tobago has no significant interdependent copyright activity, except for the production of steelbands and paper: that is, there are no significant activities producing televisions, radios, photographic equipment, photocopiers and blank recording materials. Some of the paper produced is intended only for the production and use of copyright activity, and some for packaging and purposes unrelated to copyright. In the core copyright sector estimates for Trinidad and Tobago, we distinguish the contributions of steelbands from the rest of ‘music, theatrical productions and opera’ because of their national significance as well as their institutional structure. Steelbands are mainly run as large community-based NGOs. In the ‘interdependent’ sector estimates, the musical instrument that is manufactured in Trinidad and Tobago is the steelband. All of this manufacturing activity is treated as a copyright output and given a factor of 1. An aggregate music industry for Trinidad and Tobago is computed and reported as the sum of these parts plus the activities of the business associations PanTrinbago and TUCO and of the collective management organisations. Further, an even more inclusive industry labelled ‘steelband, music, carnival and culture’ is defined that includes the works of mas and the activities of all related business associations, including TUCO and PanTrinbago.

7.1 Contribution of Copyright to GDP

The data in Table 7.1 show the trend in the aggregate contribution of copyright to GDP at market prices in 2000, 2007 and 2011. In 2000, copyright contributed approximately TT\$1,998 million to the economy – more than 3 times as much as agriculture (TT\$626 million), 2.8 times as much as hotels and guesthouses (TT\$710 million), and nearly 23% of manufacturing (TT\$8,700 million). This contribution of copyright-based activity grew to TT\$4,351 million in 2007 and to TT\$4,292 million in 2011. Table 7.2 provides similar information in constant (2000) prices and Figure 7.1 provides bar graphs for easy comparison of sector performance. Relevant sector deflators and the deflators for the copyright sector as a whole are reported in Table 7.3. In real terms, the copyright sector contributed TT\$3,630 million in 2007 and TT\$4,102 in 2011. Thus, the real size of the copyright sector grew at an average rate of 11.7% per year between 2000 and 2007 and at a lower but still positive average rate of 3.2% per year between 2007 and 2011 (Table 7.4).

Table 7.1: GDP at Market Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (TT\$ million)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	626	23,283	8,700	3,760	9,990	710	4,316	13,508	51,371	1,998
2007	509	61,634	7,217	11,310	16,925	461	7,642	31,255	136,953	4,351
2011	853	56,557	6,209	11,874	20,862	380	6,647	35,512	134,307	4,292

Source: Computed from CSO SNA and copyright surveys

Table 7.2: GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (TT\$ million)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	626	23,283	8,700	3,760	9,990	710	4,316	13,508	51,371	1,998
2007	475	36,710	7,326	7,069	10,829	258	6,503	20,511	89,874	3,630
2011	479	33,878	8,327	6,094	11,345	210	6,427	22,696	85,838	4,102
GDP Deflators										
Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2007	1.07	1.68	0.99	1.60	1.56	1.79	1.18	1.52	1.52	1.20
2011	1.78	1.67	0.75	1.95	1.84	1.81	1.03	1.56	1.56	1.05

Source: Computed from CSO SNA and copyright surveys

Table 7.3: Deflators of the Copyright-based and General Copyright Sectors

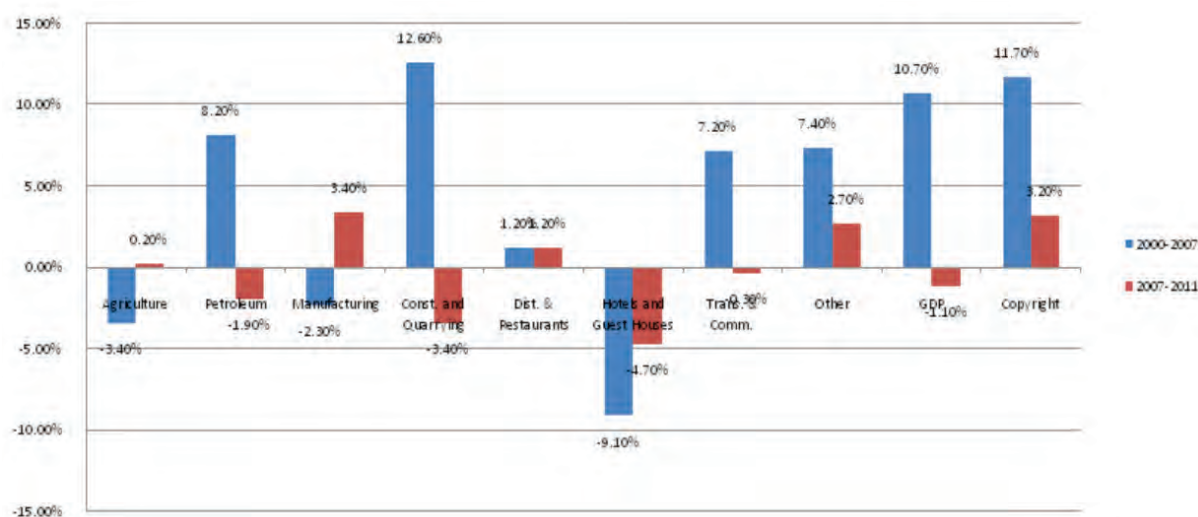
Industry	2007a	2011p
Textile, Garments and Footwear	1.013	0.281
Printing, Publishing	0.922	0.531
Wood and Related Products	1.105	1.257
Assembly Type and Related Industries	1.071	1.037
Miscellaneous Manufacturing	1.057	1.051
Distribution and Restaurants	1.563	1.839
Transport, Storage and Communication	1.175	1.034
Finance, Insurance, Real Estate, etc.	1.334	1.241
Education and Cultural Services	1.688	2.192
Personal Services	1.266	1.488
Copyright sector!	1.198	1.046
!Calculated as the geometric mean of the sub-sector deflators.		

Table 7.4: Growth of GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (%)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000-2007	-3.4%	8.2%	-2.3%	12.6%	1.2%	-9.1%	7.2%	7.4%	10.7%	11.7%
2007-2011	0.2%	-1.9%	3.4%	-3.4%	1.2%	-4.7%	-0.3%	2.7%	-1.1%	3.2%

Source: Computed from CSO SNA and copyright surveys

Figure 7.1: Bar Graphs of Sector Growth Performance, 2000-2007 and 2007-2011



The real GDP of Trinidad and Tobago grew by 10.7% per year from 2000 to 2007 and declined by 1.1% per year from 2007 to 2011, the decline reflecting negative petroleum sector shocks.³⁴ Figure 7.2 graphs the resulting sector shares in the GDP. Taking into account the fact that the petroleum sector experienced wide performance swings due to exogenous positive and negative price shocks, the copyright sector accounted for 3.9% of real GDP in 2000. By 2007, the share had increased to 4%; it then grew further to account for 4.8% in 2011, the latter rate partly on account of the relatively high average real growth rate sustained by the sector after the global recession, during which GDP as a whole declined somewhat (Table 7.5). By comparison, agriculture supplied 1.2%, 0.5%, and 0.6% of the real GDP in corresponding years, despite being a beneficiary of sustained debt and grant financing by the Agricultural Development Bank, as well as sustained ministerial attention from the Ministry of Agriculture. Further, in 2000, manufacturing, a major beneficiary of public policy supports and financing, accounted for 16.9% of the real GDP; but that share declined to 8.2% in 2007 and recovered to 9.7% in 2011. The copyright sector also contributed more to the economy than hotels and guest houses, which contributed 1.4% in 2000, 0.3% in 2007, and 0.2% in 2011 – again, despite considerable large-scale national financial and ministerial support.

The robust growth and restructuring performance of the copyright sector compares with that of agriculture and manufacturing, both of which declined in nominal as well as real terms from 2000. It also compares favourably with tourism, to which government has generally tended to look to as the main basis for restructuring the Trinidad and Tobago economy in general and the Tobago economy in particular. Between 2000 and 2007, the real value of the output of hotels and guest houses declined by 9.1% annually and, between 2007 and 2011, by 4.7% each year (see Table 7.4 above). These data suggest that the copyright sector has been a significant source of sustainable economic restructuring since 2000, and they may point to underinvestment in the sector because of inadequate financial and policy supports to exploit the potential on which it relies to achieve this strong growth performance.

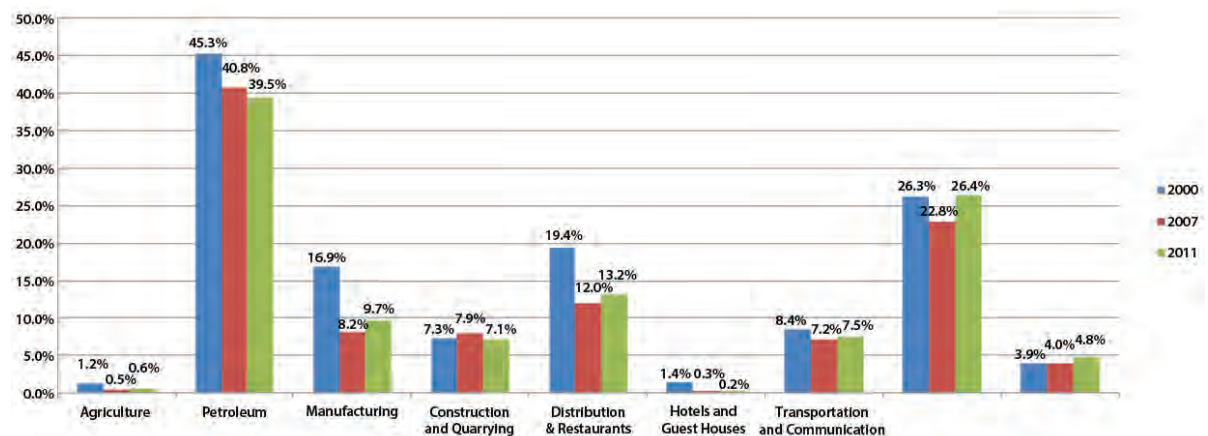
³⁴ Relevant deflators are reported in Table 7.3.

Table 7.5: Structure of GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (%)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	1.2%	45.3%	16.9%	7.3%	19.4%	1.4%	8.4%	26.3%	100.0%	3.9%
2007	0.5%	40.8%	8.2%	7.9%	12.0%	0.3%	7.2%	22.8%	100.0%	4.0%
2011	0.6%	39.5%	9.7%	7.1%	13.2%	0.2%	7.5%	26.4%	100.0%	4.8%

Source: Computed from CSO SNA and copyright surveys

Figure 7.2: Shares of Industrial Sectors in GDP, including Copyright, 2000, 2007 and 2011



7.2 Structure of Copyright Sector

Table 7.6 shows the value added of the copyright sector for 2000 to 2011 in terms of the contributions of the core, interdependent, partial and non-dedicated support sub-sectors, while Figure 7.3 illustrates the contribution of the main copyright sub-sectors in 2000, 2007 and 2011. Within the copyright sector, some sectors grew and some declined after 2007. The core copyright was the most volatile, falling by 3.9% per year in real terms between 2007 and 2011 after growing by 5.8% per year between 2000 and 2007 (Table 7.7; Figure 7.4). Most of the decline since 2007 has been the result of rapid restructuring of press and literature, as digital media and the internet services replaced paper and news stand distributions, while the revenues from internet-based activities became more opaque to national statistical and revenue authorities. Overall, the core copyright sector experienced net trend growth of 4.8% per year over the whole decade. Some other components of the copyright sector sectors have grown significantly faster.

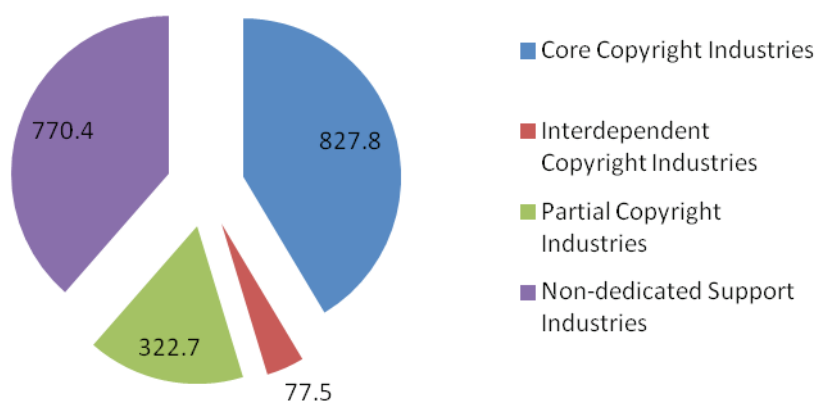
Table 7.6: Value added of the Copyright Sector, 2000, 2007 and 2011

	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
Market Prices					
2000	827.8	77.5	322.7	770.4	1,998.4
2007	1,674.3	125.7	875.0	1,675.6	4,350.6
2011	1,265.1	118.1	869.2	2,039.6	4,292.0
Constant (2000) Prices					
2000	827.8	77.5	322.7	770.4	1,998.4
2007	1,397.2	104.9	730.1	1,398.2	3,630.4
2011	1,209.2	112.8	830.8	1,949.4	4,102.1

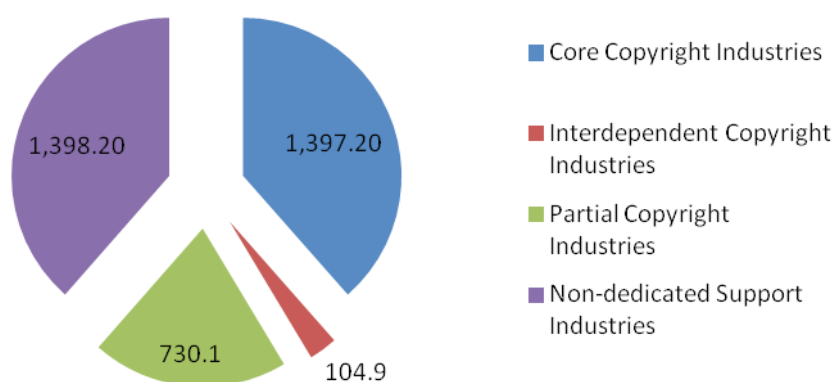
Source: Computed from TTSNA and copyright surveys

Figure 7.3: Contribution of Main Copyright Sub-sectors, 2000, 2007, 2011

2000



2007



2011

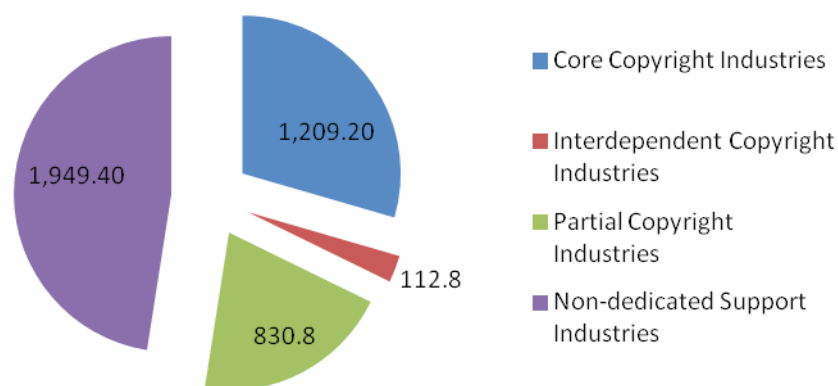
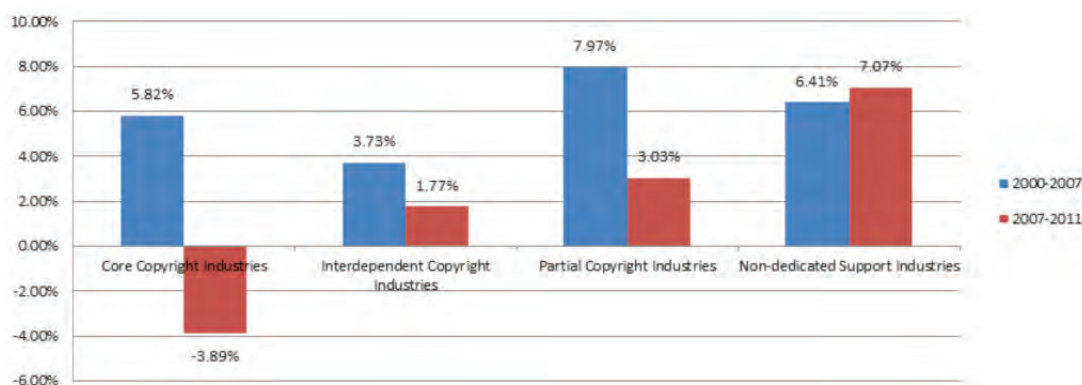


Table 7.7: Average Annual Growth of Components of the Real Copyright Sector, 2000- 2007 and 2007-2011

Years	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
2000-2007	5.82%	3.73%	7.97%	6.41%	6.42%
2007-2011	-3.89%	1.77%	3.03%	7.07%	2.88%

Source: Computed from TTSNA and copyright surveys

Figure 7.4: Comparative Growth of the Main Copyright Sub-sectors, 2000-2007 and 2007-2011

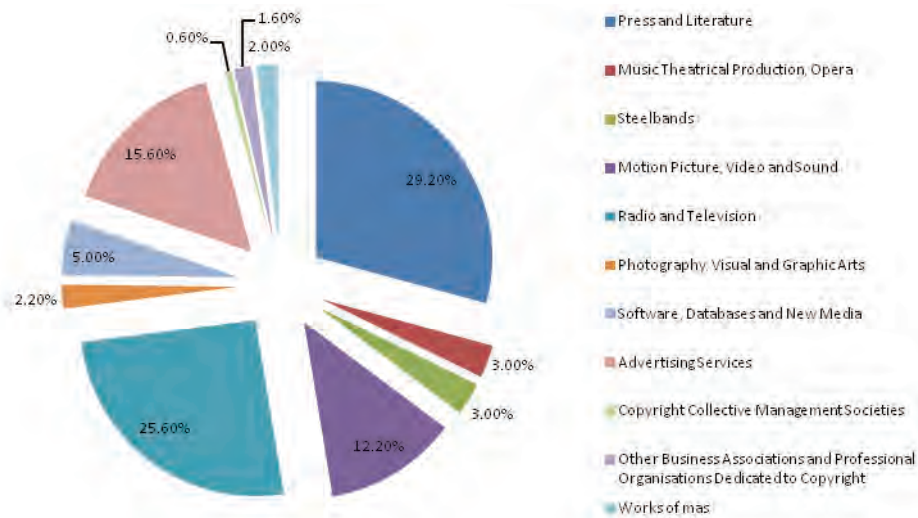


7.2.1 The Core Copyright Sector

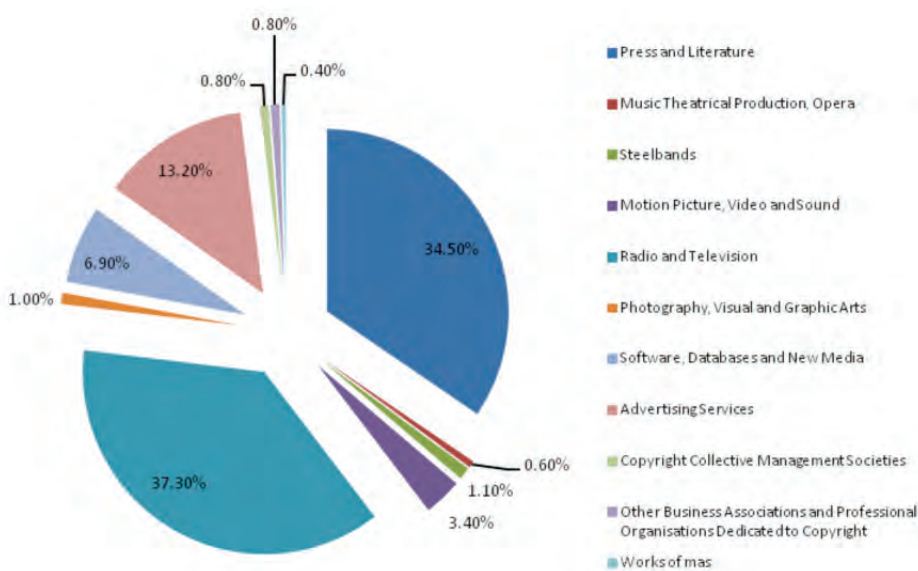
Within the core copyright sector, there are now four dominant sectors, ordered in terms of size in the 2011 as: (i) radio and television (**TT\$666.1 million**); (ii) press and literature (inclusive of academic publishing) **TT\$200.0 million**; (iii) advertising services (**TT\$147.6 million**), and (iv) software and databases (**TT\$90.3 million**) (Table 7.8; Figure 7.5). Other significant sectors are motion picture, video and sound (**TT\$69 million**), and the organisational and advocacy services provided by the professional organisations that are dedicated to promoting and protecting the interests of the copyright sector (**TT\$25.2 million**). The contributions of academic press and production of published research by the academic and research institutions to overall press and literature development – summarily labelled as ‘press and literature’ – is nontrivial (**TT\$82.4 million**). Primarily because of the rapid expansion of radio, the share of radio and television grew from 26% of the core copyright sector in 2000 to 37.3% in 2007, before expanding dramatically to 52.7% of the core copyright sector in 2011. This industry displaced several previously dominant ones (Table 7.9). Press and literature, including academic publishers (such as UWI), accounted for the largest share (29.2%) of the core copyright sector in 2000. Its share increased to 34.5% in 2007, but thereafter declined to only 16% in 2011. The share of advertising decreased from 15.6% in 2000 to 13.2% in 2007, and then to 11.7% in 2011. Of considerable interest in the light of the expansion of digital industries globally, is the growth of software, databases and new media – from only 5% of the copyright sector in 2000 to 6.9% in 2007 and 7.1% in 2011. Motion picture, video, and sound – linked mainly to the music industry – accounted for 12.2% of the core in 2000, but this share declined to 5.5% in 2011. Iconic sectors such as works of mas and core music (including the steelbands) are small in comparison to these dominant sectors, perhaps mainly because of their seasonal characteristics. The main feature of these sectors to be noted by the policy-maker is that they tended to grow in nominal and real terms during the period 2007-2011, a period of the persistent global recession. In Section 8 of the report, it will be shown that this performance might be traced to their local and global competitiveness.

Figure 7.5: Structure of the Core Copyright Sector, 2000-2011

2000



2007



2011

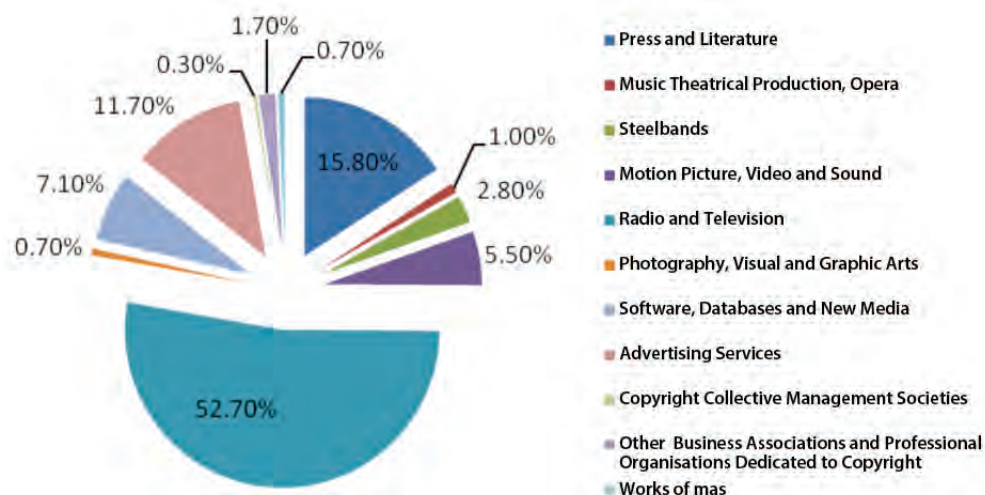


Table 7.8: Value Added of Core Copyright Sub-sectors, Market Prices, TT\$ Million, 2000, 2007, 2011

Components	Year		
	2000	2007	2011
Press and Literature	241.76	576.86	199.16
Music, Theatrical Production, Opera	24.71	10.22	13.11
Steel Bands	25.19	19.09	35.58
Motion Picture, Video and Sound	101.18	57.38	69.01
Radio and Television	212.07	624.63	666.10
Photography, Visual and Graphic Arts	18.46	16.12	9.40
Software, Databases and New Media	41.37	114.93	90.27
Advertising Services	128.74	221.80	147.56
Copyright Collective Management Societies	4.63	13.07	3.67
Other Business Associations and Professional Organisations Dedicated to Copyright	13.26	13.44	21.52
Works of Mas	16.47	6.81	8.74
Total	827.83	1,674.34	1,265.13

Source: Computed from TTSNA and copyright surveys

Table 7.9: Share of Output of Core Copyright Sub-sector GDP (%), Market Prices, TT\$ Million, 2000, 2007, 2011

Components	Year		
	2000	2007	2011
Press and Literature	29.2%	34.5%	15.8%
Music, Theatrical Production, Opera	3.0%	0.6%	1.0%
Steelbands	3.0%	1.1%	2.8%
Motion Picture, Video and Sound	12.2%	3.4%	5.5%
Radio and Television	25.6%	37.3%	52.7%
Photography, Visual and Graphic Arts	2.2%	1.0%	0.7%
Software, Databases and New Media	5.0%	6.9%	7.1%
Advertising Services	15.6%	13.2%	11.7%
Copyright Collective Management Societies	0.6%	0.8%	0.3%
Other Business Associations and Professional Organisations Dedicated to Copyright	1.6%	0.8%	1.7%
Works of Mas	2.0%	0.4%	0.7%
Total	100%	100%	100%

Source: Computed from TTSNA and copyright surveys

7.2.2 The Interdependent Copyright Sector

In WIPO (2003), the interdependent copyright sector includes any activity dedicated mainly to the production, manufacture and sale of equipment that facilitates copyright activity. Only two such activities are represented as generating output in the Trinidad and Tobago national accounts and in the survey of firms conducted for this study. In real terms, these interdependent activities jointly grew moderately after 2000 – at an approximate rate of 3.7% per year from 2000 to 2007, and at 1.8% from 2007 to 2011 (Table 7.7). However, the two activities performed differently. In nominal terms, the paper production industry grew between 2000 and 2007 at 10.2% per year, consistent with corresponding growth in press and literature, but declined between 2007 and 2011 at 2.6% per year. This is also a result of two factors: i) the rapid technological change that is affecting press and literature generally, and ii) related loss of price competitiveness. By contrast, pan production, the main source of demand for output from steelbands, declined by 3.5% annually between 2000 and 2007 but grew by 21.6% annually between 2007 and 2011 (Table 7.10). What is to be noted by the policy-maker is the relatively strong growth performance of pan production in the recessionary period.

Table 7.10: Value Added, Growth and Structure of the Interdependent Copyright Sector 2000, 2007, 2011)

Value added (TT\$ millions, market prices)			
	2000	2007	2011
Pan and Other Musical Instruments	7.6	5.7	10.7
Paper	69.9	120.0	107.4
Interdependent Copyright Industries	77.5	125.7	118.1
Average annual growth rates (%)			
	2000/2007	2007/2011	
Pan and Other Musical Instruments	-3.46%	21.59%	
Paper	10.22%	-2.62%	
Interdependent Copyright Industries	8.89%	-1.52%	
Structure (%)			
	2000	2007	2011
Pan and Other Musical Instruments	9.8%	4.6%	9.0%
Paper	90.2%	95.4%	91.0%
Interdependent Copyright Industries	100.0%	100.0%	100.0%

Source: computed from TTSNA and copyright surveys

Figure 7.6: Structure of Interdependent Copyright Sector



7.2.3 The Partial Copyright Sector

Overall, the partial copyright sector experienced growth in real and nominal terms over the period 2000 to 2011. However, there was a distinct declining trend after 2007, perhaps as a result of the effects of the ongoing global recession. The sector grew by approximately 15.3% annually over the whole period. Between 2000 and 2007, it grew by 24.45% per year, but declined marginally by 0.16% per year between 2007 and 2011 (Table 7.11; Figure 7.7). The overall strong growth performance was mainly because of the persistent growth, in each of these periods, of furniture and related products, interior design, and museums. Furniture and related products expanded by 29.14% in nominal terms in 2000-2007, and again by about 10.2% in 2007-2011. Interior design kept pace with furniture and related products somewhat, growing by 28% in 2000-2007 and at a slower rate of 6.9% in 2007-2011. Activities such as architecture, engineering, and surveying also performed well in the pre-recession period, growing by 25.4% annually, but could not resist the effects of the recessionary period and declined by 5.4% in 2007-2011. The reason might be their close links to the construction sector, which is well known to be a 'leading' sector – among the first to be affected by recessionary conditions in an economy and among the first to lead the way out of such conditions.

The dominant partial copyright sub-sector is now interior design: it accounts for 50.6% of the sector in 2011. The overall performance of architecture, engineering, and surveying was strong, but its share of the partial copyright market fell from 52.9% in 2000 to 42.5% in 2011. Once again, policy-makers could improve resource allocation by understanding the factors driving the robust performance of these segments of the partial copyright sector.

Figure 7.7: Structure of the Partial Copyright Sector

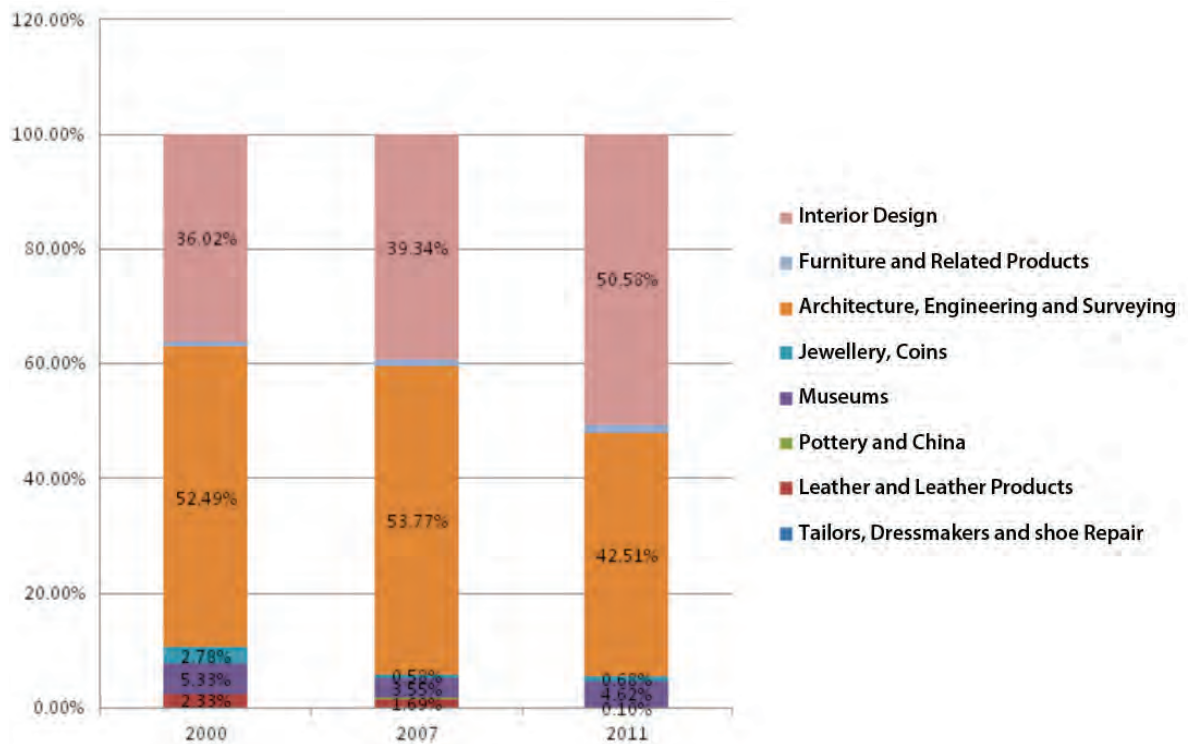


Table 7.11: Value Added, Growth and Structure of the Partial Copyright Industries, 2000, 2007, 2011

Value added (TT\$ millions, market prices)			
	2000	2007	2011
Tailors, Dressmakers and Shoe Repair	0.3	0.2	0.2
Leather and Leather Products	7.5	14.8	0.9
Pottery and China	0.1	0.1	0.1
Museums	17.2	31.0	40.1
Jewellery, Coins	9.0	5.1	5.9
Architecture, Engineering and Surveying	169.3	470.5	369.5
Furniture and Related products	3.0	9.1	12.8
Interior Design	116.2	344.2	439.7
Partial Copyright Industries	322.7	875.0	869.2
Average annual growth rates (%)			
	2000/2007	2007/2011	
Tailors, Dressmakers and Shoe Repair	-6.44%	1.93%	
Leather and Leather Products	13.85%	-23.53%	
Pottery and China	2.74%	-7.76%	
Museums	11.47%	7.34%	
Jewellery, Coins	-6.24%	4.16%	
Architecture, Engineering and Surveying	25.40%	-5.36%	
Furniture and Related Products	29.14%	10.23%	
Interior Design	28.03%	6.93%	
Partial Copyright Industries	24.45%	-0.16%	
Structure (%)			
	2000	2007	2011
Tailors, Dressmakers and Shoe Repair	0.10%	0.02%	0.02%
Leather and Leather Products	2.33%	1.69%	0.10%
Pottery and China	0.03%	0.01%	0.01%
Museums	5.33%	3.55%	4.62%
Jewellery, Coins	2.78%	0.58%	0.68%
Architecture, Engineering and Surveying	52.49%	53.77%	42.51%
Furniture and Related Products	0.93%	1.04%	1.48%
Interior Design	36.02%	39.34%	50.58%
Partial Copyright Industries	100.00%	100.00%	100.00%

Source: Computed from TTSNA and copyright surveys

7.2.4 The Non-dedicated Copyright Sector

In the TTSNA, the non-dedicated activities covered the full range of general wholesale and retail, general transportation, and telephony and the internet. Growth of the non-dedicated support sector as identified was robust over the whole period, both in real terms (Table 7.7) and nominal terms (Table 7.12; Figure 7.8). In nominal terms, all three segments grew overall, but non-dedicated general transportation experienced decline by 3.7% in the period 2007-2011. Further, both non-dedicated wholesale/retail and telephony and the internet grew more rapidly in the boom conditions of 2000-2007 but experienced slower growth in the recessionary period of 2007-2011. An interesting fallout of the differential growth performance is that the share of both general transportation and telephony and the internet declined over the whole period while that of general wholesale and retail grew substantially from 66.7% in 2000 to 76.5% in 2011.

Figure 7.8: Structure of Non-dedicated Support Copyright Sector from 2000 to 2011

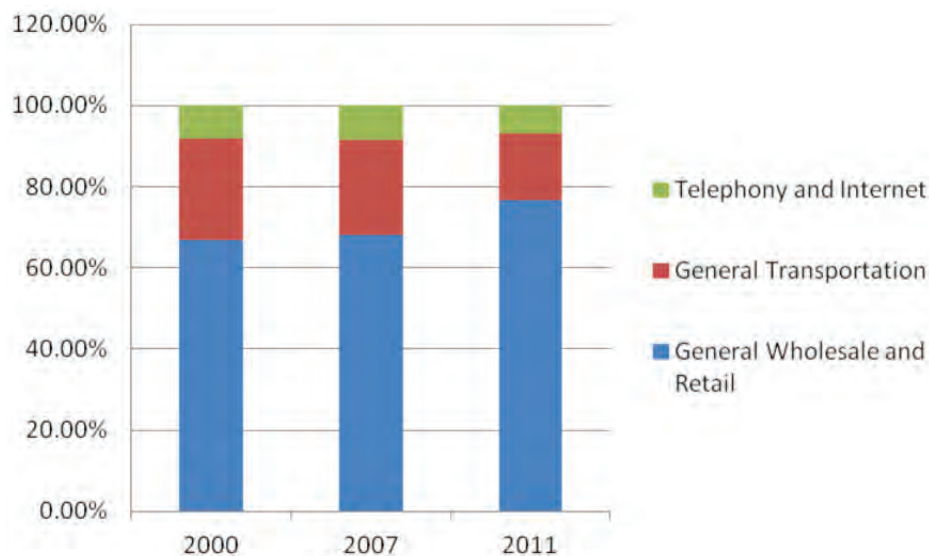


Table 7.12: Value Added, Growth and Structure of the Non-dedicated Support Industries, 2000, 2007, 2011

Value added (TT\$ millions, market prices)			
	2000	2007	2011
General Wholesale and Retail	514.2	1,140.3	1,561.0
General Transportation	192.4	394.2	335.6
Telephony and Internet	63.8	141.2	143.0
Non-dedicated Support Industries	770.4	1,675.6	2,039.6
Average annual growth rates (%)			
	2000/2007	2007/2011	
General Wholesale and Retail	17.39%	9.23%	
General Transportation	14.98%	-3.71%	
Telephony and Internet	17.33%	0.31%	
Non-dedicated Support Industries	16.78%	5.43%	
Structure (%)			
	2000	2007	2011
General Wholesale and Retail	66.74%	68.05%	76.54%
General Transportation	24.98%	23.52%	16.45%
Telephony and Internet	8.28%	8.43%	7.01%
Non-dedicated Support Industries	100.00%	100.00%	100.00%

Source: Computed from TTSNA and copyright surveys

7.2.5 General Patterns of Sector Restructuring

These differential growth patterns led to an overall restructuring of the copyright sector. Core copyright lost its dominant role in the copyright sector, as its share declined from 41.4% to 29.5% in 2011. It was displaced by non-dedicated support activity (47.5%) in 2011. Partial copyright also gained ground relative to the core –from 16.1% in 2000 to 20.1% in 2011 – a trend which might reflect the consistency in achieving viability and competitiveness by such joint-production processes (Figure 7.9; Table 7.13). The phenomenon points to a higher rate of creation of externalities, perhaps related to the widening options for secondary applications of the output of the core sector and for final demand to the extent that this is captured by the growing contributions of the non-dedicated support industries.

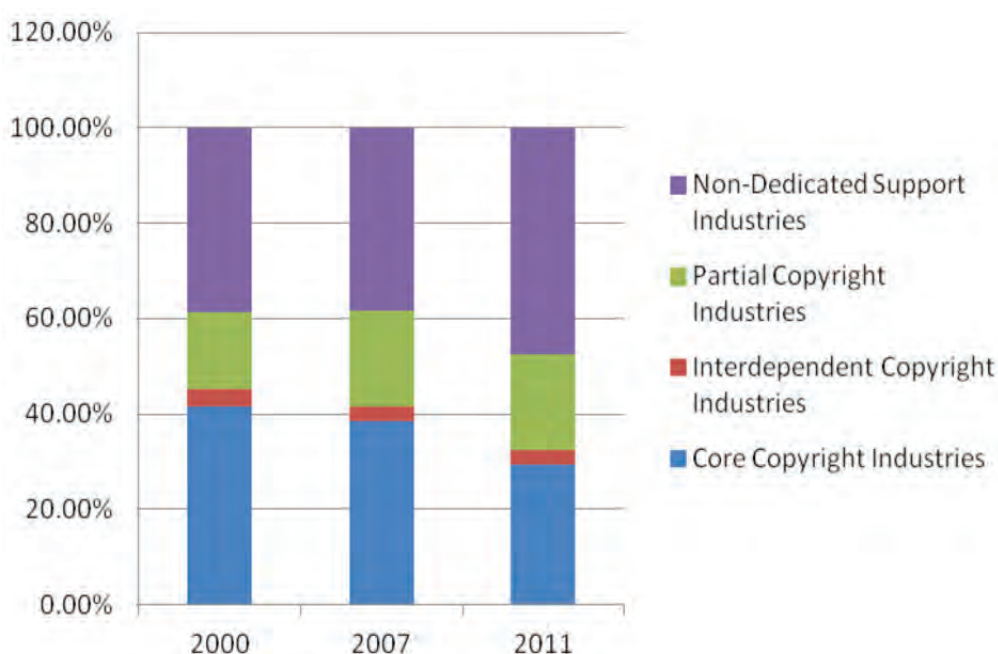
The overall trend appears to signal persistent underinvestment in developing the considerable competitive capacity of the core, interdependent, and partial copyright sectors. Overall, one of the striking features of the copyright sector that should be of interest to the policy-maker is that, partly as a result of its high degree of diversity, the sector (especially some of its key components) is remarkably resilient in the face of recessionary conditions in the global economy. This performance is not unlike that of internet-based industries in the global economy: the common characteristic they share is a high degree of competitiveness rooted partly in their capacity to innovate, which also translates into improved performance in labour productivity, import productivity, and profitability.

Table 7.13: Structure of the Copyright Sector, 2000, 2007 and 2011

	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
2000	41.4%	3.9%	16.1%	38.6%	100.0%
2007	38.5%	2.9%	20.1%	38.5%	100.0%
2011	29.5%	2.8%	20.3%	47.5%	100.0%

Source: Computed from TTSNA and copyright surveys

Figure 7.9: Restructuring of the Copyright Sector, 2000-2011



7.3 Contribution to Employment

In this study, we use a broad concept of 'employment' to refer to all types of resources used in the production process of a sector: capital, labour, and intermediates (goods and services). It is worth noting that intermediates are themselves a form of capital, being output produced and reused as inputs. Further, an important aspect of the contribution to employment is the capacity of the sector to generate operating surplus to cover the cost of employing money capital (interest and dividends) and yield retained earnings that can finance expansion of resource use.

7.3.1 Labour

The copyright sector is a strong creator of jobs. In 2000, the copyright sector contributed 3.6% or 18,304 of the 502,000 jobs in the Trinidad and Tobago economy at a real annual average wage of approximately TT\$44,962. By 2007, the sector had contributed 29,758 jobs or 5.1% of the jobs in Trinidad and Tobago, and

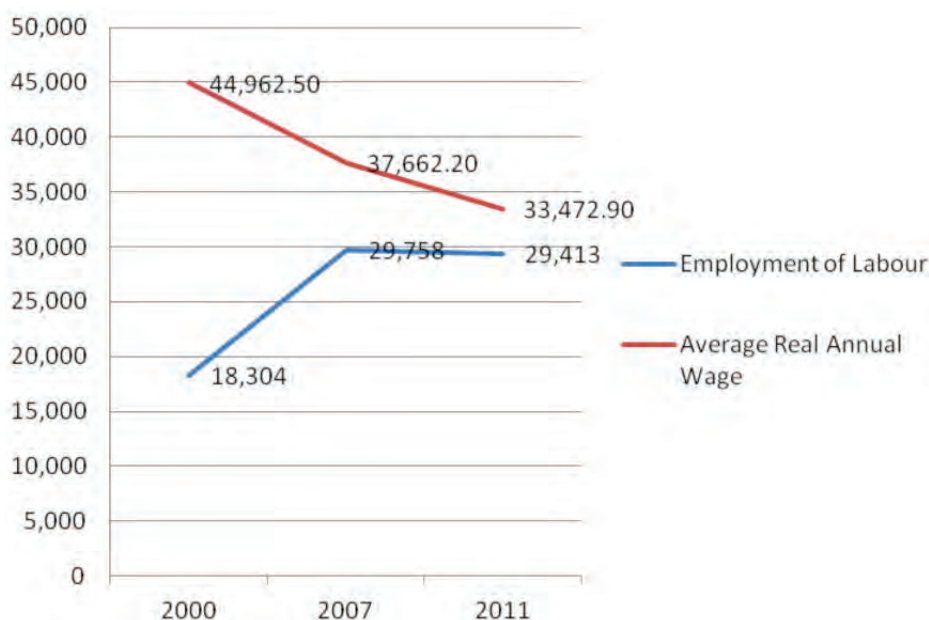
so had created an additional 10,401 jobs over the period, at a lower real annual average wage of TT\$37,662. The employment contribution declined somewhat to 29,413 jobs or 5% of total employment in Trinidad and Tobago in 2011 –a loss of 346 jobs by the sector –even as output was growing and the sector’s real wage fell further to TT\$33,473(Table 7.14). Figure 7.10 exhibits a tendency for the wage to fall as employment rises. The stagnation in job creation could be mainly a reflection of the recessionary forces that slowed the growth of the sector after 2007, along with the technological forces that led to the restructuring of press and literature.

Table 7.14: Employment of Labour and Real Wages by the Copyright Sector 2000, 2007, 2011

	Year		
	2000	2007	2011
Employment of Labour	18,304	29,758	29,413
Employment of Trinidad and Tobago	502,000	587,800	590,000
Compensation of Employees Copyright (TT\$ million)	823.0	1,647.5	1,545.7
Average Real Annual Wage	44,962.5	37,662.2	33,472.9
Copyright Share of Total Employment	3.6%	5.1%	5.0%

Source: Computed from CSO SNA and Copyright Survey

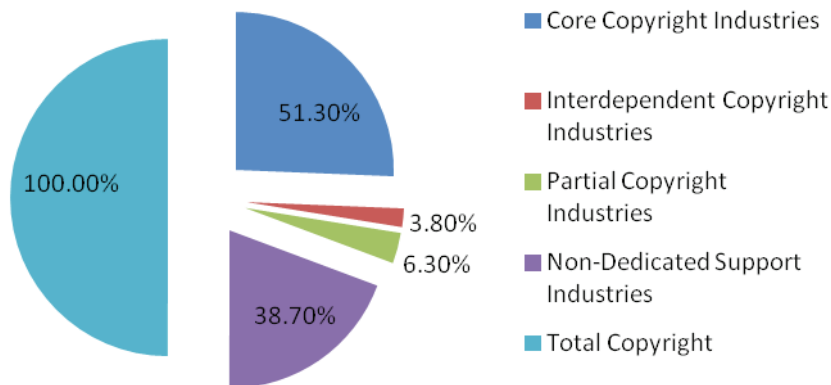
Figure 7.10: Trends in the Average Wage and the Level of Employment by the Copyright Sector, 2000-2011



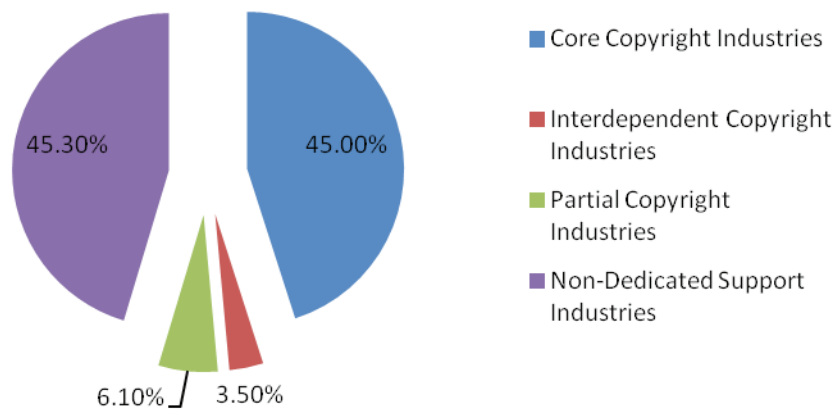
Of the total number of jobs in the sector in 2000, 51.3% were created in the core copyright sector, compared to 42.4% of the total income of the sector. The second highest share of the jobs, 38.7%, came from the non-dedicated support sector, which supplied 38.6% of the income in the sector. By 2007, the share of core copyright sector jobs had fallen to 45% of the total and, in 2011, by only 34.6%. By 2011, the main job-creating activities in copyright were those providing non-dedicated support, providing 53.4% of the jobs (Table 7.15). Notwithstanding the importance of the general slowdown in activity in the recession, the main reason for the loss of job-creating capacity was the radical change in the technology of press and literature, which correspondingly experienced substantial job losses: the number of jobs in the sector fell to 2,458, from as many as 6,693 jobs in 2007 – a loss of 4,235 jobs. The more skill-intensive sectors of radio and television; advertising; architecture, engineering, and surveying; and other construction-related skills did not create sufficient jobs to replace those lost by press and literature.

Figure 7.11: Employment by Copyright Sub-sectors, 2000-2011

2000



2007



2011

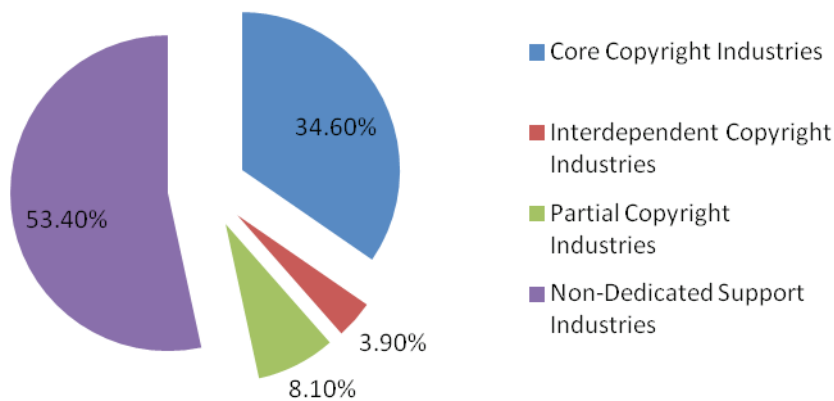


Table 7.15: Employment of Labour by the Copyright Sector, T&T, 2000, 2007, 2011

	Employment					
	2000		2007		2011	
	Nos.	% Copyright	Nos.	% Copyright	Nos.	% Copyright
Core Copyright Industries	9,394	51.3%	13,397	45.0%	10,184	34.6%
Press and Literature (including Academic press)	2,444	13.4%	6,693	22.5%	2,458	8.4%
Radio and Television	1,647	9.0%	3,634	12.2%	3,448	11.7%
Interdependent Copyright Industries	689	3.8%	1,050	3.5%	1140.524976	3.9%
Partial Copyright Industries	1,146	6.3%	1,824	6.1%	2,377	8.1%
Non-dedicated Support Industries	7,075	38.7%	13,488	45.3%	15,712	53.4%
Total Copyright	18,304	100.0%	29,758	100.0%	29,413	100.0%
Total Trinidad and Tobago	502,000		587,800		590,000	
Copyright Share of T&T Employment of Labour	3.65%		5.06%		4.99%	

Source: Computed from CSO SNA and Copyright Survey

7.3.2 Employment of Intermediates and Fixed Capital

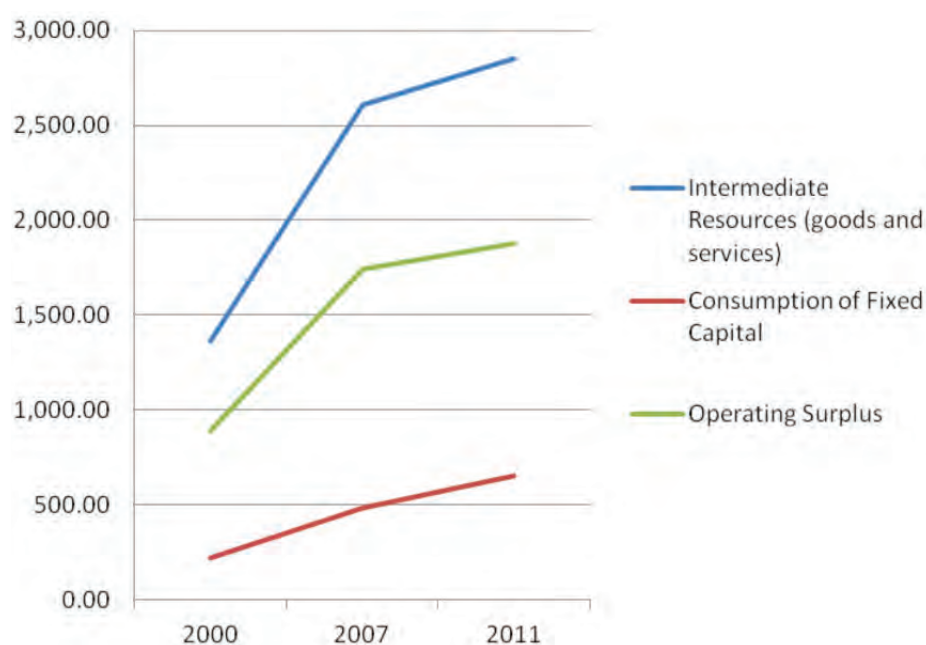
The data in Table 7.16 reports on the employment of intermediate and fixed capital. Figure 7.12 illustrates that all resources exhibit trend increases in their use rates. In particular, the principal lesson from the data is there is a growing employment of real capital, as well as a rising capacity to employ financial capital. In 2000, the copyright sector employed TT\$1,364.8 million of intermediate capital and used TT\$223 million of fixed capital services from its stock of fixed capital. By 2007, this rate of employment had grown to a real value (at 2000 prices) of TT\$2,606 million of intermediate capital and TT\$486.4 million worth of services from its fixed capital stock. The rate of employment continued to grow over the decade, reaching a real value of TT\$2,853.9 million of intermediates and consumption of TT\$665 million of fixed capital services. The data available in the SUT suggest that the rate of growth of employment of intermediates by the copyright sector is a strong measure of its growing tendency and capacity to generate externalities by employing a variety of forms of domestic capital. Taking into account the patterns of employment of labour reported in Tables 7.14 and 7.15, the result was growth of real operating surplus – from TT\$889.1 million in 2000 to TT\$1,744.6 million in 2007, and to TT\$1,877.7 million in 2011. This means that the internal capacity of the sector to finance capital expansion grew along with the general employment of real resources. An important additional gauge of the strength of this economic performance is that not only did operating surplus grow in real terms over the decade to 2011, but the share of operating surplus in value added also grew from 44% in 2000 to 48% in 2007. It was 46% in 2011 –still 2 percentage points above the 2000 rate –even as the global economy was undergoing a general recession from 2008 to the present, some effects of which were transmitted to the Trinidad and Tobago economy through both import and export price shocks. As indicated above, the growth in the profit share was engineered partly by a falling average annual real wage in the sector. A fuller understanding of this trend would require information about the ownership structure of the sector and, in particular, the extent of self-employment and worker-ownership of the industry's enterprises. This is a fruitful area for further study.

Table 7.16: Employment of Intermediates and Capital by the Copyright Sector, 2000, 2007, 2011

	Year		
	2000	2007	2011
Intermediate Resources (goods and services)	1,364.8	2,606.3	2,853.8
Consumption of Fixed Capital	223.0	486.4	655.2
Operating Surplus	889.1	1,744.6	1,877.7
Value-added Copyright (constant 2000 prices)	1,998.4	3,630.4	4,102.1
Profit Share of Value added	0.44	0.48	0.46
	1	1.198	1.046

Source: Computed from TTSNA and Copyright Survey

Figure 7.12: Trends in the Use of Intermediate Resources and Capital, 2000-2011

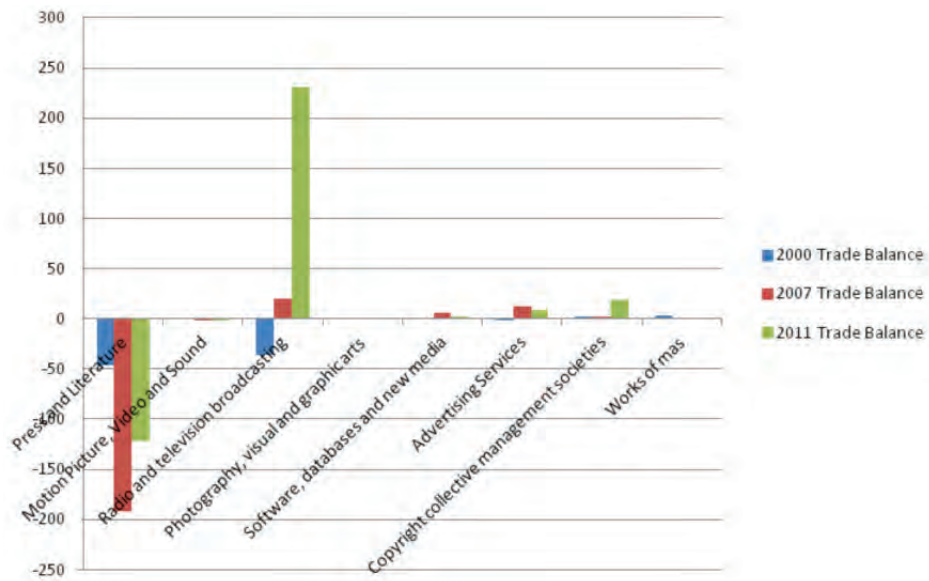


7.4 Contribution to Trade

In an economy characterised by a high degree of dependence on exports and by frequent recurrence of foreign exchange shortages, one of the important questions confronting any economic sector is how it contributes to the balance of trade (and payments) and, in particular, whether it relies on the net foreign exchange earnings of other sectors or provides an opening on which others can draw. Using data made available by the CSO from their SUT and ASYCUDA database, as well as data made available by the ICT from COMTRADE, selective but extensive details of the contribution of copyright-based sectors to the current account balance for 2000, 2007, and 2011 are reported in Annex I. Figure 6.13 isolates the patterns for the core copyright sector for the same years.

The data show that many elements of the core copyright sector were net positive contributors to foreign exchange earnings. The main positive contributors were in radio and television broadcasting, which relied on the developing internet technologies to emerge from a trade deficit of TT\$35.7 million in 2000 to register a trade surplus of about TT\$20.1 million in 2007 and TT\$21.5 million in 2011. Advertising services also generated a net positive trade balance (TT\$12.18 million) in 2007 and TT\$8.1 million in 2011, after suffering a deficit of TT\$0.02 million in 2000. Largely because of an unrecorded deficit in the trade in music, collective management organisations ran a trade surplus of TT\$2.4 million in 2000, TT\$1.69 million in 2007, and TT\$1.57 million in 2011. It is important to observe that these organisations deliver the bulk of their services to foreign artistes seeking payment for use of their copyright in the local market; which in turn implies a service trade deficit in music. *Works of mas* similarly achieved a small but positive trade balance in 2007 (TT\$0.1 million) and 2011 (TT\$1.51 million).

Figure 7.13: Patterns of Trade of the Core Copyright Sector, 2000 to 2011



The data for the interdependent copyright sector show the expected substantial trade deficit in musical instruments generally and in electronic equipment (such as televisions and radios) as well as in paper and other interdependent industries that produce no output in Trinidad and Tobago. However, the steelpan industry recorded a positive but reducing trade balance in all three years, 2000 (TT\$3.16 million), 2007 (TT\$3.04 million) and 2011 (TT\$0.81 million). A broadly similar pattern is found among the partial copyright industries, in which the majority (tailors, dressmakers and shoe repair; leather and leather products; pottery and china, glass and glass products; jewellery and coins; furniture design and production; and interior design) registered trade deficits. But architecture, engineering and surveying registered a trade surplus in 2007 and 2011. Moreover, in this case, the trade surplus appears to be growing.

7.4.1 Output of the Carnival and Cultural Industries

As indicated above, the music industry for Trinidad and Tobago is defined as steelband, music, theatricals and opera; steelpan production; and the music associations PanTrinbago, TUCO, and the collective management organisations. Further, this industry is incorporated into a larger industry that we refer to as 'steelband, music, Carnival and other culture', which includes the works of mas and the activities of other related business associations. The data in Table 7.17 present the aggregates for these industry groups for 2000, 2007, and 2011. The music industry accounted for about 3.44% of the whole copyright sector and 7.7% of its employees in 2000, producing TT\$68.7 million of the sector's TT\$1,998 million. The broader grouping of steelband, music, carnival and other culture produced TT\$129.5 million or 4.59% of the copyright sector's output and employed 10.5% of its workers. The output of these industries fell over the 7 years from 2000 to 2007, but recovered with moderate strength in the subsequent 4 years, while other sectors (such as radio) grew rapidly. Thus, in 2011, the music industry accounted for TT\$49.6 million or 1.21% of the total TT\$4,102 million (in 2000 prices) and 5.8% of the jobs. The broader aggregate of steelband, music, carnival and other commercialised culture accounted for 1.53% of the copyright sectors' real output and 6.9% of the jobs. Reliable trade estimates are not available for these aggregate sectors.

Table 7.17: Steel Band, Music, Carnival and Other Culture

ITEMS	2000		2007		2011	
	Music Industry	Steel Band, Music, Carnival and Culture	Music Industry	Steel Band, Music, Carnival and Culture	Music Industry	Steel Band, Music, Carnival and Culture
TOTAL GROSS OUTPUT	135.8	210.8	153.5	232.6	192.2	302.3
TOTAL INTERMEDIATE COSTS COPYRIGHT	67.1	119.0	98.7	164.2	118.4	209.0
VALUE ADDED (mp) Copyright	68.7	91.8	54.8	68.4	73.8	93.3
Compensation of Employees Copyright	37.5	67.1	24.5	34.1	48.1	61.0
Consumption of Fixed Capital Copyright	16.9	39.1	14.5	16.2	12.3	15.8
OPERATING SURPLUS Copyright	13.9	23.3	15.8	18.0	13.4	16.5
Deflators	1.0	1.0	1.3	1.3	1.5	1.5
VALUE ADDED at Constant Prices Copyright	68.7	91.8	43.3	54.0	49.6	62.7
Value-added Share of Gross Copyright	3.44%	4.59%	1.19%	1.49%	1.21%	1.53%
Average Wage	26,663.1	35,039.4	31,445.4	33,297.2	28,363.1	30,198.9
Number of employees, copyright	1,405	1,916	780	1,025	1,697	2,019
Per cent of copyright employees	7.7%	10.5%	2.6%	3.4%	5.8%	6.9%

Source: TTSNA

7.5 Comparison with Other Countries

The estimates are broadly in line with estimates of the contribution of copyright to GDP in other countries. In those countries around the world in which WIPO-sponsored studies have been conducted, it has been found that the contributions of copyright industries to GDP ranged from 11.12% in the US to a low of 2.0% in Brunei, and averaged 5.53% (Table 7.18). In 2011, the contribution of copyright to GDP in Trinidad and Tobago was 4.8%. Similarly, in the international community, the contribution of copyright to employment of labour ranged from a low of 1.91% in Ukraine to 11.1% in the Philippines, with an average of 5.81%. In the case of Trinidad and Tobago, the estimated contribution to employment was 5% in 2011.

Table 7.18: Contribution of Copyright Sector by Country Conducting WIPO-Sponsored Studies

No.	Baseline Year	Country	Contribution to GDP (%)	% of Employment
	2011	Trinidad and Tobago	4.8	5.0
1	2007	US	11.12	8.49
2	2007	Australia	10.30	8.00
3	2005	Korea	8.67	4.31
4	2009	Hungary	7.40	7.20
5	2006	Panama	6.95	6.35
6	2006	China	6.41	6.50
7	2004	Russia	6.06	7.30
8	2005	Netherlands	5.90	8.80
9	2005	Malaysia	5.80	7.50
10	2004	Singapore	5.80	5.90
11	2005	Romania	5.54	4.17
12	2007	Kenya	5.32	3.26
13	2007	Slovenia	5.10	6.80
14	2000	Philippines	4.92	11.10
15	2005	Jamaica	4.80	3.03
16	2003	Mexico	4.77	11.01
17	2005	Lebanon	4.75	4.49
18	2008	Bulgaria	4.54	4.92
19	2004	Canada	4.50	5.55
20	2006	Pakistan	4.45	3.71
21	2004	Croatia	4.42	4.64
22	2000	Latvia	4.00	4.50
23	2005	Peru	3.60	2.51
24	2005	Colombia	3.30	5.80
25	2005	Ukraine	3.47	1.91
26	2005	Brunei	2.00	3.30
		Average	5.53	5.81

8. Designing Effective Development Policy: Contributions from the Copyright Sector

Apart from motion induced by perturbations from a fixed point, economic motion is also induced by deliberate strategy and policy. The core concern of economic strategy design is to find an optimum level and to take steps to get the economy onto it or as close to it as possible. Investment analysis provides an ideal framework for considering how this works. Firm foundations for reconsidering the investment policy support given to the copyright sector are provided by the arithmetic of Section 6. Even as the petroleum sector was experiencing wide performance swings due to exogenous positive and negative price shocks, the copyright sector increased its share of real GDP from 3.9% in 2000 to 4.0% in 2007 and then to 4.8% in 2011. It also increased its share of employment from 3.6% to 5% over the same period. This was done in the absence of dedicated ministerial systems that provide targeted programme support. By contrast, agriculture supplied 1.2%, 0.5%, and 0.6% of the real GDP in corresponding years, while hotels and guest houses, the core of the tourism sector, contributed 1.4% in 2000, 0.3% in 2007, and 0.2% in 2011. Both tourism and agriculture are beneficiaries of dedicated ministerial support; and agriculture is also a beneficiary of sustained debt and grant financing by the Agricultural Development Bank. Just as important, while the copyright sector was delivering robust growth in its share of real GDP from 2000 to 2011, the manufacturing sector, a major beneficiary of public policy support and financing, experienced a declining share from 16.9% of the real GDP in 2011 to 8.1% in 2007, with recovery to 9.4% in 2011. However, the case for stronger and more dedicated support for the copyright sector rests on a more general observation – the copyright sector is a strong contributor to the development of industrial competitiveness in an increasingly open world economy in which trade is governed by the rules of the World Trade Organisation. This section sheds light on the determinants of competitiveness and the role of the copyright sector in the process.

In the previous section, evidence was also provided that the trend growth of the copyright sector was financed in large measure by growth in its profitability, as indicated by both the growth of its operating surplus and profit share. This section uses the cross-industry details available in the SUT of Trinidad and Tobago to identify a crucial nexus underlying the cyclical dynamics of the economy – the nexus between profits, the productivity of labour, and the productivity of imported inputs. The productivity of imported inputs is referred to as import productivity. The latter is also a measure of the efficiency of foreign exchange use, and the growth of import productivity increases the capacity of the economy to save foreign exchange through its production system. The parameters of the nexus are estimated, using the profit share as the measured endogenous variable. Since wages and profits sum to value added, and the sum defines one of the fundamental identities of national accounts, this amounts to an update of an aspect of the traditional wage-price-profit-labour productivity nexus that is widely understood to drive a typical economy.³⁵ Some case studies of the nexus have been done for Caribbean countries.³⁶ Either profits or wages can be used in empirical analysis of the nexus.

This section also uses canonical correlations to demonstrate that import productivity and labour productivity form a common conceptual framework for evaluating a country's competitiveness and for shaping the development path. Further, it is shown that the structure of capital is a vital factor influencing the identified nexus. We do not address the issues of countercyclical (monetary or fiscal) policy here, but it is worth observing that the results also imply that, in contrast to labour productivity, import productivity is embedded in the short-run dynamics of the economy – in the Keynesian multiplier. That is, in contrast to labour productivity, it holds significance for both cyclical and development dynamics; the parameters of the nexus of wages, profits, import productivity, and labour productivity are the parameters of a generalised long-run development process that shapes the specific cyclical dynamics of the economy and could guide effective countercyclical policy as well as define the optimal short-run adjustment of the economy. In other words, the strategic management of the long-term path of import productivity can play a crucial role in determining how an economy can adapt competitiveness and profitability to meet development needs in the long run, while at the same time be optimised to yield the best approach to investment for cyclical management in the short run. In traditional

³⁵ Bodkin, R.G. (1966), *The Wage-Price-Productivity Nexus*, Philadelphia: University of Pennsylvania Press.

³⁶ Brewster, H. (1968), Wage, Price & Productivity Relations in Jamaica, 1957-1962, *Social and Economic Studies*, 17(2), June: 107-132; Downes, A., Holder, C., and Leon, H. (1990), The Wage-Price-Productivity Relationship in a Small Developing Country: The Case of Barbados, *Social and Economic Studies*, 29(2), June: 49-77; Hamilton, R. (1994), Analyzing Real Wages, Prices & Productivity in the Caribbean: An Econometric Analysis, *Social & Economic Studies*, Vol.3 (March).

analysis of optimal economic management, much of that role was assigned to management of the interest rate instrument in achieving investment targets. This approach was adopted with minimal attention to the instrumental role of certain real sector variables, mainly because of lack of appreciation of how this crucial nexus of profits and competitiveness governs the cycles of the economy and can provide a key set of target instruments to be used to define the path of investment as a target variable.³⁷

The findings are important for copyright-sector policy-makers and other stakeholders particularly, and for sector-specific analysis generally. In the normal course of long-term and cyclical economic management, a major objective of the policy-maker is to minimise the deviation between the current rate of investment and the target investment necessary to solve development problems. It is widely understood that in this endeavour, investment performance in one period affects investment in the next. This goal can be advanced by using the profits-productivity nexus, since investment is the major determinant of the performance of the nexus – an observation that is not controversial in the way that the investment-interest rate relationship has proven to be. The worse the investment performance of the economy in the previous period, the higher the import and labour productivity government will have to pursue in the current period in order to boost current investment. In respect of this agenda, policy-makers must be concerned with whether and how the firms and sectors of the economy can sell commodities in the global marketplace and enable the economy to earn its way in a competitive global environment characterised by the trade rules that have been engineered under the WTO trade agreements. One of the most important aspects of the contribution of the copyright sector to the economy is its contribution to this profit-competitiveness nexus and hence to development, as well as to the specific size and dynamics of the short-run investment impact multiplier. In the context of the above parameter estimates, this section of the report therefore also sheds new light on the meaning of the estimates of import productivity in Section 4. It estimates the wage share, which depends on labour productivity, for all sectors, using the data from the SUT 2000, and aligns their ranking with that of the import productivity of sectors. The findings can then be used to pick winners, in the sense of identifying the greatest underutilised potential for improving competitiveness, lowering unit production costs in the economy, and growing net exports. Sectors with high import productivity, such as copyright-based sectors, must be given priority in the drive to optimise the short-run path of the economy. The related implications for the design of optimal copyright sector policies are then extracted. The content of the policies recommended is informed by the results of the policy-related profiles survey in which practicing and successful stakeholders in the copyright sector reported the types of policies they judge to be optimal if the copyright sector is to exploit its potential and expand the prospects for output growth, employment and trade. The sector-specific data assembled from the SUT and the sector profiles provide a basis for this evaluation, based on both wage share (and hence labour productivity) and the productivity of use of imported capital goods and services.

8.1 Labour Productivity and Profits – Analytical Considerations

The decomposition of per capita income is well-known and is elegantly formulated by ul Haque (1995)³⁸ in a way that takes account of price, output, employment, productivity of labour, the cost of living deflator, the size of the labour force and population size. The cost of living deflator takes account of the exchange rate. The productivity of labour inherent in this decomposition has been the focus of an analytical industry, famously led in mainstream economics by Solow (1956)³⁹ and in econometrics by Mankiw, Romer and Weil (1992).⁴⁰ In a world where labour is scarce, this decomposition makes perfect sense. Its most important property is that it is a measure of *absolute advantage*, i.e., *the ability to extract value from the inputs used*, and the consensus of the entire analytical industry is that this form of advantage depends primarily on the ability of the country to use and upgrade advanced technologies. It has long been argued by Shaikh (1980: 225-232),⁴¹ and repeated by ul Haque (1995: 12), that whatever its disposition towards respecting its comparative advantage in the world system, a country must pay close attention to enhancing its absolute

³⁷ When first posed by Theil (1964), this approach to policy used a *structural model of the economic system* to express the role of constraint on the achievement of maximum social welfare, hence on achievement of the smallest gap between the target variables and the targets. This idea is still relevant here. See, Theil, H. (1964). *Optimal Decision Rules for Government and Industry*. Amsterdam: North-Holland.

³⁸ ul Haque, I. (1995). *Trade, Technology and International Competitiveness*. Washington, D.C.: The World Bank.

³⁹ Solow, R. (1956). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, 70: 65-94.

⁴⁰ Mankiw, G., Romer, D., and Weil, D. (1992). A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economic Growth*, 107: 408-437.

⁴¹ Shaikh, A. (1980). The laws of international exchange. In E.J. Nell (1980), *Growth Profits and Property: Essays on the revival of political economy*. New York: Cambridge University Press., pp. 204-235.

advantage; and successful countries tend to do so. The core reason, as Shaikh (1980: 205) observes, is that, ultimately, firms engage in trade for profit.

To the extent that a country's markets lend themselves to a high degree of monopoly, or to the extent that the creative impulses create intellectual property and hence monopolistic competition as the basis for engagement in the market, commodity pricing will tend to be on the basis of a mark-up over cost (Kalecki (1939),⁴² Pentecost (2000: 262),⁴³ Romer (2001: 240-241, 308),⁴⁴ Bowen, *et al.*, (1998).⁴⁵)

A detailed analysis of the tendency and ability of firms to set price based on the mark-up rate can be found in Martin (1993).⁴⁶ Indeed, there is now a well-established methodology for understanding the mark-up share in value added in the presence of market imperfections, where the extent of imperfections is measured by the Herfindahl index of concentration; the other important explanatory variable is the elasticity of demand for the product of the firm or industry. A special case of this analysis is the Kalecki (1939) mark-up theory. A typically authoritative study of this kind is Jacquemin *et al.* (1980),⁴⁷ which is specifically interested in 'small' economies, such as Trinidad and Tobago. In the general case, the explanatory variables in the extent of the mark-up pricing principle will be the elasticity of demand faced by the industry and the degree of concentration of the industry. This is a well-established principle in trade analysis where the issue comes up routinely; it is well documented in Bowen *et al.* (1998: 360-362). Where these variables cannot be measured, as is often the case with existing data limitations, there are acceptable proxies such as the extent of increasing returns or economies of scale, capital-intensity and product differentiation.

In the light of these considerations, a policy model was built to guide the integration of suggestions from stakeholders into the substance of this report, set in the context of the fundamental outlines of policies implied by the data at hand. The model and parameter estimates are presented in detail in Annex II. The model estimates the parameters of the nexus of the profit share, the productivity of labour, and the productivity of imported inputs (or the efficiency of foreign exchange use), which are its dependent variables. The explanatory variables of the model are extracted from underlying production functions and from the principles of distribution, as well as of mark-up pricing and its links to trade. The selected variables are: (i) **the structure of capital**, measured as the ratio of domestic capital consumption in total capital consumption; (ii) **the mark-up rate**, which enters as a quadratic; (iii) **the capital-labour ratio**, measured as gross capital consumption divided by employment, where gross capital consumption includes both fixed and circulating capital; (iv) the rate of **employment per unit of domestic capital**, measured as employment divided by the consumption of domestic capital; (v) the **wage share**, measured as the ratio of compensation of employees to value added; (vi) the rate of **import penetration**, measured as the ratio of consumer imports to domestic shipments; (vii) the **export-imported inputs ratio**, measured as exports divided by imported inputs; and (viii) the export share of value added. The wage-share is treated as an endogenous variable as a result of its link to the share of profits through an identity.

Canonical correlations of the right-side linear combinations of the estimated import productivity and labour productivity equations of the model, reported in Annex II, indicate that one might think of import productivity and labour productivity as comprising a unified conceptual framework for the evaluation of competitiveness driving the mark-up of the sectors, and hence the core capacity to finance development from retained earnings, in that the two views are closely correlated. That is, when linear combinations of the arguments in each of the structural equations are sought that maximise the correlation of the linear combinations, the result is a near-perfect correlation of 0.96 between the best linear combination of the labour productivity factors and the best linear combination of the import productivity factors. Moreover, all of the test statistics are highly significant.

The coefficient estimates reveal that, as expected from the literature, labour productivity (**ln labprod**) is a fundamental factor underlying the availability of retained earnings to finance competitiveness in the form of import productivity. Importantly too, as import penetration grows, the mark-up rate tends to fall, while

⁴² Kalecki, M. (1939). *Essays in the Theory of Economic Fluctuations*. London: Allen & Unwin.

⁴³ Pentecost, E. (2000). *Macroeconomics: An open economy approach*. New York: St Martin's Press.

⁴⁴ Romer, D. (2001). *Advanced Macroeconomics* (2nd Edition). New York: McGraw-Hill.

⁴⁵ Bowen, H.P., Hollander, A., and Viaene, J-M. (1998). *Applied International Trade Analysis*. Ann Arbor: University of Michigan Press.

⁴⁶ Martin, S. (1993). *Advanced Industrial Economics*. Cambridge, Mass. & Oxford: Blackwell.

⁴⁷ Jacquemin, A., De Ghellinck, E., and Huveneers, C. (1980). 'Concentration and Profitability in a Small Open Economy', *Journal of Industrial Economics*, 29(2): 131-144.

a rising capital-import ratio will favour growth of the mark-up rate. A rising share of domestic capital in the capital pool will also have a substantial positive effect on the mark-up rate.

More striking here is that the coefficient estimates also reveal that, indeed, labour productivity and import productivity are mutually reinforcing. Considering only the productivity equations, a 1% increase in labour productivity would lead to a 0.56% growth of import productivity. The estimates also show that a 1% increase in the wage share of value added would lower labour productivity by 0.41%, causing a corresponding and reinforcing 0.23% reduction in import productivity, then a further 0.05% reduction in labour productivity, and so on, *ad infinitum*. The process is convergent. The largest of the elasticities (2.02) is the coefficient of **lnshdcap**, and it indicates that this is the variable that should receive priority attention from policy-makers seeking to promote development. One finds similar reinforcement in the quadratic of the **opsurps** equation.

8.2 Implications of Policy Model

The powerful lesson of the parameter estimates is that, in order to transform the competitiveness of the economy, priority attention should go to an investment programme that grows domestic capital faster than all the other variables of the model. Examination of the Supply and Use Tables indicates that this also means accepting Demas' (1965)⁴⁸ propositions to find policies that grow inter-industry linkages in order to expand employment of constant capital.

Practically, these are very strong empirical findings, and they demonstrate many advantages of growing the domestic capital ratio. In particular,

1. It follows that growth of the domestic capital component at a faster rate than the total capital stock is good for the programme of foreign exchange saving, and hence ultimately good for the development of the economy, even as the total stock is encouraged to grow at its optimal rate.
2. It also follows that the development of the inter-industry system (intermediates) and the production final capital are good targets for the strategy to attain an optimal long-term development path for the economy.
3. Development policy can rationally pick winners, in the sense of engineering a relative growth of the sectors that show high foreign exchange saving potential, even as all viable sectors are pushed to grow at their highest possible rate.

These results do not promote any form of economic closure; indeed, free movement of people and capital might be the primary mechanism by which the accumulation of domestic capital relative to total capital can be achieved. In general, the policy implication is to promote investment and trade, in relative terms, in those sectors that use technologies which tend to grow domestic capital faster than imported capital, and thus tend to have the highest import productivity. The ordering of sectors for this purpose is documented in Table 5.7.

It is in this light that the policy-maker should consider the suggestions of the leaders in the copyright sector and, indeed, the wider economy. Specifically, their suggestions would be disciplined by the above finding, in that allocations to implement them could be governed by the comparative import productivities of the sectors involved, in the knowledge that one effect would be to also grow both labour productivity and profitability. As matters stand with the relationship of import productivity and sector growth extracted from SUT 2000 data and assembled in Table 5.8, this means giving relative priority to the sectors ordered as follows:

1. Group A: [music, theatrical productions, opera; motion picture, video and sound; software, databases and new media; literature; works of mas]
2. Group B [radio and television; advertising services; copyright collective management societies; photography, visual and graphic arts, and related professional and technical services]
3. Group C: [press]

The implications for policy are immediate. The biggest impact variable is the share of domestic capital in gross consumption of capital, with an elasticity of 2.02. Thus, the best policies would be those that focus on growing domestic capital faster than all other factors in the economy. From the perspective of sector-specific targeting, the first practical consideration is to use the wage share to put pure government employment –

⁴⁸ Demas, W. (1965). *The Economics of Development in Small Countries*, with special reference to the Caribbean. McGill: McGill University Press.

public administration – in perspective. Table 8.1 reports the wage share by sector. Table 8.2 illustrates the trend for the share of government in employment in Trinidad and Tobago. In Tobago, the share of administrative government has been growing steadily and rapidly since 2000, from 40% in 2000 to 49% in 2009. This rapid growth of the share of government in the Tobago economy contrasts with the slow upward drift in Trinidad. Government in the sense of pure public administration does not operate to generate an operating surplus and its wage share is virtually 1. As its share of the economy increases, it will create a ‘government disease’ by raising the wage share dramatically and by stimulating both a rising wage share and a fall in productivity in other sectors of the economy. The multiplier effects of the wage share follow, as demonstrated above. So, funded by buoyant prices in the energy sector, the trend increase in the share of government in the economy has been setting up a process of perpetual stagnation of both labour productivity and import productivity – the most fundamental joint indicators of competitiveness and determinants of future investment. It is this type of stagnation, an ultra-high-risk strategy of growth without development, which has been the underlying threat to the development prospects of Tobago since 2000 and, indeed, throughout the history of the island. The same threat is evident in Trinidad, but to a much lesser extent.

From the perspective of sound policy, the estimated policy model also suggests that such threats need not be halted by a battle with workers to lower the wage share, especially if a rising wage share is likely to produce stimulus to growth from the side of real consumption. Instead, they can be effectively counteracted and corrected by exogenous investment shocks to the capital-labour ratio and, better still, by improving the structure of capital and the level of employment of the skills of the labour force relative to the capital employed. Once again, this analysis, in combination with the data on import productivity (Table 5.7) and the wage share (Table 8.1), suggests that the optimal strategy would be to reallocate and order the necessary investment interventions to favour the sectors that raise import productivity. As the data show, the leading sectors among these are the copyright sectors.

Finally, the presence of highly significant parameters for the quadratic in the domestic capital share of the capital employed and the general presence of significant nonlinearities in the model point to the likelihood of multiple solutions and optimal development paths. This might ultimately point to the need for significant investment in good governance to support the drive to competitiveness and development. Indeed, this might be the single largest development project needed in Trinidad and Tobago.

Table 8.1: Wage Share by SUT Sector, Trinidad and Tobago

Sector Code	Sector description	Wage Share	Import Productivity
51	Government (75)	1.00	NA
52	Education (8010,8021,8022,8030)	0.9	NA
41	Construction (4510,4520,4530,4540)	0.99	4.3
54	Personal Services (9219,5020,9301,9302,9303)	0.7	33.5
24	Miscellaneous Food Manufacturers (1543,1544,1549)	0.7	0.2
19	Dairy Factories (1520)	0.7	0.3
01	Poultry Farms (0122)	0.6	0.2
14	Service Contractors (1120)	0.6	3.1
23	Bakeries (1541)	0.6	13.6
26	Textiles (1711,1810,1920,1729)	0.6	2.0
20	Fruit & Vegetable Processors (1513)	0.6	11.5
15	Quarries & Asphalt (1410,1429)	0.6	12.4
45	Hotels & Guest Houses (5510)	0.6	17.9
29	Wood (2010,3610,2029)	0.5	11.9
33	Iron & Steel (2710)	0.5	0.1
27	Printing (2212,2211)	0.5	1.7
17	Meat Processors (1511)	0.5	1.5
39	Electricity (4010)	0.4	6.6
43	Wholesale & Retail Distribution (52/51)	0.4	13.3
47	Communication (6420)	0.4	5.8
46	Transport (6021,6022,6304,6309,6301,6304,6302,6411,6412)	0.4	6.5
30	Construction Materials (2422,2693,2695,2694,2520,2811)	0.4	6.7
32	H/hold Appliances (3420,3140,3430,2511,3220,3512,3610,2899)	0.4	2.1
21	Fish Processors (1512)	0.3	7.4
28	Paper Converters (2109)	0.3	0.1
53	Health (8512,8520,8519,8511,9142,9112,9191,9120)	0.3	10.0
48	Finance (6511,6519,6592,6599,7530)	0.3	15.3
44	Restaurants (5520)	0.2	20.8
50	Business Services (7010,7430,7111-7129,7492)	0.2	29.8
34	Petroleum & Gas Refineries (2320,2320)	0.2	6.7
25	Alcohol/Soft Drinks/Tobacco (1551,1553,1554,1600)	0.2	2.2
49	Insurance (6601,6603)	0.2	27.1
42	Oil & Gas Distribution (5050,4020)	0.1	20.9
13	Oil & Gas Production (1110)	0.1	9.0
22	Feed & Flour Mills (1531,1532,1533)	0.1	2.9
36	Petrochemicals (2411)	0.1	3.0
31	H/hold Chemicals (2423,2424)	0.1	2.6
35	Gas Processing (2411)	0.0	7.9

Table 8.2: Employment by Type, Trinidad and Tobago, 2000-2009

	Employment Type	Employed									
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Trinidad	Statutory Board	2.4%	3.0%	2.6%	2.9%	3.1%	3.3%	3.2%	3.1%	3.5%	3.2%
	Gov't State Enterprise	5.0%	5.3%	5.4%	4.7%	3.5%	3.6%	3.7%	3.5%	3.4%	3.3%
	Central and Local Gov't	17.4%	17.6%	18.6%	18.6%	19.1%	19.5%	19.9%	18.8%	19.6%	19.3%
	Private Enterprise	52.0%	50.5%	50.6%	51.9%	53.0%	52.7%	52.9%	52.7%	52.5%	52.2%
	Unpaid Worker	1.4%	1.1%	1.0%	1.0%	0.9%	0.9%	0.6%	0.8%	0.8%	0.7%
	Learner/Apprentice	0.7%	0.7%	0.8%	0.7%	0.9%	0.8%	0.9%	1.1%	1.0%	1.1%
	Own Account Worker	16.3%	16.5%	15.8%	15.5%	15.0%	14.8%	14.2%	14.9%	14.6%	15.3%
	Employer	4.7%	5.2%	4.9%	4.7%	4.4%	4.4%	4.5%	4.9%	4.6%	4.7%
	Not Applicable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Not Stated	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tobago	Statutory Board	3.2%	2.6%	2.9%	4.0%	3.2%	3.0%	3.5%	2.9%	3.0%	5.1%
	Gov't State Enterprise	1.7%	1.5%	2.2%	1.2%	1.6%	1.7%	1.1%	1.5%	1.6%	3.0%
	Central and Local Gov't	39.8%	41.7%	40.6%	38.1%	41.7%	44.7%	46.4%	46.2%	50.9%	48.6%
	Private Enterprise	39.8%	38.6%	39.9%	39.9%	39.7%	36.2%	36.8%	35.4%	29.5%	32.1%
	Unpaid Worker	0.5%	0.3%	0.4%	0.1%	0.5%	0.1%	0.3%	0.5%	0.1%	0.0%
	Learner/Apprentice	1.2%	0.5%	0.3%	0.3%	0.9%	0.5%	0.5%	0.4%	0.3%	0.0%
	Own Account Worker	9.2%	11.1%	10.5%	13.8%	10.8%	12.4%	9.0%	9.7%	10.8%	8.2%
	Employer	4.5%	3.4%	3.3%	2.6%	1.6%	1.5%	2.3%	3.3%	3.7%	2.9%
	Not Applicable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Not Stated	0.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Government Tobago	44.7%	45.9%	45.7%	43.3%	46.5%	49.4%	51.0%	50.6%	55.6%	56.7%	
All Government Trinidad	24.8%	25.9%	26.7%	26.2%	25.7%	26.4%	26.8%	25.4%	26.5%	25.8%	

8.3 Selected Policy Suggestions from the Industry Leaders and Lessons from International Best Practice

The policy suggestions from the industry profile survey are broadly consistent with the implications of the policy model discussed above, with details reported in II. All of the proposals seek to increase investment consistent with the structural interpretation of the policy model. Exceptions are noted.

8.3.1 General Suggestions from Profile Survey

The profile survey suggests that we should:

1. Improve education for the sector participants, by:
 - (a) Fully integrating it into the school system in the long-term to address general and specific literacy skills and technological creativity.
 - (b) Targeting the current skills deficit of professionals in the medium term, with a view to boosting creativity.
2. Improve access to financing in the form of ultra-low-cost financing and insurance for all forms of capital formation, including working capital.
3. Improve management and marketing, with significant priority given to:
 - (a) Support for development of the business model.
 - (b) Investment promotion and international marketing and brand development.

4. Upgrade risk management and strengthen entrepreneurial initiatives through the representative business associations of the relevant sectors, with a strong emphasis on developing capacity to deliver incubation and transformative technical support in collaboration with the various academies in the country. In this regard, a representative institution should be developed to unify the efforts of the business associations and the delivery of business support, as well as risk measurement and monitoring for improved financing.
5. Upgrade implementation of the copyright laws.
6. Make community-based interventions.
7. Improve tax incentives.

8.3.1.1 *Notable Specifics – Group A*

As regards what should be done specifically in relation to the sectors in Group A, the survey suggests the following initiatives:

1. Establish a pan factory to facilitate pan research and exporting, as well as to enable more festivals and shows.
2. Provide more and improved museums, statues, and related displays for public education.
3. Promote and brand Trinidad and Tobago's music internationally.
4. Move beyond ethnicity in the development of the segments of the copyright sector.
5. Strengthen the technical and financial capacity of promoters.
6. Guarantee at least 50% local airplay on television and radio.
7. Join the Rome Convention for the protection of performers, producers of phonograms, and broadcasting organisations.

The proposal to guarantee a 50% local airplay on television and radio (6) is not strictly consistent with the model results of this section, or with the performance estimates of Section 6. These estimates suggest that the copyright sector of Trinidad and Tobago can thrive and grow in a competitive global environment, even under recessionary conditions, without imposing the suggested restrictions, partly by taking advantage of the expanded access to a global market in the relatively free trading context. For this reason, it might be better to look to more positive approaches to policy on trade in services, including improved trade promotion.

The stakeholder recommendation to join the Rome Convention is inconsistent with the stance of the Intellectual Property Office of Trinidad and Tobago, which holds that by virtue of membership in WPPT and WCT, membership of the Rome Convention appears to be unnecessary. However, in terms of the trajectory of the development of the economy and the use of copyright in that process, there are two important countries in CARICOM that are significant users of TT sound recordings but are not signatories to WPPT (Table 8.3): these are Barbados and Dominica. Owners of TT sound recordings are not protected in those countries, which however, are signatories of Rome. To gain protection for the owners of such neighbouring rights, a proactive stance by Trinidad and Tobago would be to sign the Rome Convention and gain that protection, at no significant cost to the country.

Table 8.3: CARICOM Signatories to Copyright Conventions and Treaties

Country	Convention / Treaty					
	Rome	Berne	WPPT	WCT	GENEVA	BRUSSELS
Anguilla	Yes	Yes	Yes	Yes	Yes	No
Antigua and Barbuda	No	Yes	No	No	No	No
Bahamas	No	Yes	No	No	No	No
Barbados	Yes	Yes	No	No	Yes	No
British Virgin Islands	Yes	Yes	Yes	Yes	Yes	No
Dominica!	Yes	Yes	No	No	No	No
Grenada	No	Yes	No	No	No	No
Guyana	No	Yes	No	No	No	No
Jamaica	Yes	Yes	Yes	Yes	Yes	Yes
Montserrat	Yes	Yes	Yes	Yes	Yes	No
Saint Kitts and Nevis	No	Yes	No	No	No	No
Saint Lucia!	Yes	Yes	No	Yes	Yes	No
Saint Vincent/Grenadines	No	Yes	Yes	No	No	No
Suriname	No	Yes	No	No	No	No
Trinidad and Tobago	No	Yes	Yes	Yes	Yes	Yes
Total Signatories Worldwide	91	165	89	89	77	35
Berne Convention	Protection of literary and artistic works					
Rome Convention	Protection of performances of performers in phonograms, phonograms of producers of phonograms, and broadcasts of broadcasting organisations. Also includes protection for phonogram producers against unauthorised reproduction of their phonograms					
Geneva Convention	Protection of phonogram producers against unauthorised duplication of their phonograms					
Brussels Convention	Protection of unauthorised transmission of programme carrying satellite signals except direct broadcast transmissions					
WPPT	Protection of performances fixed in phonograms granted to performers – the right of reproduction; ii) the right of distribution, (iii) the right of rental, and (iv) the right of making available; Moral Rights (the right of broadcasting, except in the case of rebroadcasting), (ii) the right of communication to the public (except where the performance is a broadcast performance), and (iii) the right of fixation. Grants to producers of phonograms (i) the right of reproduction, (ii) the right of distribution, (iii) the right of rental, and (iv) the right of making available					
WCT	Protection of computer programs and databases					

Source: WIPO

8.3.1.2 Notable Suggestions – Group B

In respect of the sectors in Group B, the survey suggests that government should:

1. Establish broadcasting standards and facilitate training of announcers.
2. Provide incentives for research into audience preferences and into the content needs of radio and television stations.

8.4 Other Specific Projects Suggested by Profile Survey

Notably, the survey also suggests that, while relying on private entrepreneurship to lead development, the government should establish a multi-dimensional system for the development of the copyright sector by:

1. Creating a single, robust, and independent Copyright Sector Development Division and Ministry.
2. Establishing a College of Copyright, Heritage Industries and Law (Tobago).
3. Introducing a system of merit scholarships and internships to enable individuals to pursue higher studies in the copyright sector.

4. Establishing a Copyright Research Institute that conducts capacity-building and policy research to provide direct technical support to enterprises and individuals in the copyright sector in, for example, the form of:
 - a Copyright Studies & Research Bulletin
 - an annual Copyright Communities Research Conference.
5. Establishing a Heritage Industry and Copyright Development Fund and Collateralisation Programme.
6. Rewarding copyright sector performance by district with trophies and other incentives (this is especially applicable to the Heritage Festival).
7. Establishing a Copyright Claims Court for the prevention of piracy.

8.4.1 Financing Measures for Promoting Entrepreneurship in Copyright-based Sectors

Government should stimulate copyright-related entrepreneurship and investment, via:

- A business start-up financing programme for persons with certified skills in any area that potentially yields copyright. Such a programme should include a copyright business support programme that seeks to improve management and employee skills.
- A special microcredit facility for micro working capital, with a presence in every community, designed to upgrade traditional rotating savings programmes, foster participation, and keep interest rates low, as well as make credit available in manageable amounts under manageable repayment arrangements.
- Increased participation by the copyright sector in international trade missions.
- Creation of a Register of Copyright.

Stakeholder recommendations that a Register of Copyright be created are not consistent with the position adopted by the TTIPO. The TTIPO generally observes that, after more than a decade of considering the merits, the general international consensus is that the establishment of a Register appears to create more problems than it solves with respect to certification that a registered claimant indeed is the legitimate holder of the rights claimed. This is reflected in the absence of such a requirement in the administration of any of the international conventions and treaties listed in Table 8.3.

8.4.1.1 The Gender Focus of Policy

In relation to gender, policy should focus on:

1. Providing special incentive packages for women.
2. Encouraging women and men to combine family and work by fostering cooperation between labour-related organisations such as musicians' unions, copyright collective management agencies, employers' associations, state employment agencies, and research agencies.

8.4.1.2 The Community Focus of Policy

Within a framework of economic renewal programming at the community level, policy should focus on:

- Establishment of a community-based education programme designed to raise awareness and change attitudes towards employment and wealth creation, as well as piracy in the copyright sector.
- Expansion of community-based training programmes to improve the skills, knowledge and confidence of investors in the copyright sector (current and potential leaders, civic educators, media professionals, electoral observers, and other key stakeholders in electoral processes).
- Promotion of necessary economic investments, as well as constitutional and legal amendments (by, *inter alia*, supporting temporary affirmative actions towards the relevant goals of community-based leadership of copyright sector development).

8.4.1.3 Legal Issues, International Conventions and Implementation of Law

Works of Mas: Trinidad and Tobago delegations to various international forums, most notably in the ongoing negotiations in WIPO, have tirelessly lobbied for the protection and recognition of works of mas in member states. Those efforts have concentrated on protecting works of mas internationally, not as copyright, but as a traditional cultural expression. One result of this continuing effort by the Government of Trinidad and

Tobago is that the current draft international instrument on the protection of traditional cultural expressions, developed in the WIPO Intergovernmental Committee on the Protection of Traditional Knowledge, Cultural Expressions and Genetic Resources, contains references to works of mas, for example, in its Article 1(d), which specifically mentions: '... tangible expressions, such as material expressions of art [handicrafts,] [*works of mas*,] [architecture,] and tangible [spiritual forms], and sacred places'.⁴⁹ International consensus building in this regard continues and it is of the utmost importance to keep the issue under careful scrutiny and control, and to report sound data on it.

Implementation of the Copyright Law: The copyright laws of Trinidad and Tobago are not well-enforced. One important manifestation of this is the failure of most holders of copyright to actively challenge the licensing bodies to secure their rights. The paucity of licensing disputes with licensing bodies that are referred to the High Court is probably attributable to two factors. The first is lack of knowledge or awareness of this provision by persons who have disputes with licensing bodies, and the second is the expense and inordinate delays of High Court litigation in Trinidad and Tobago. In the circumstances, consideration should be given to the implementation of alternate dispute resolution (ADR) mechanisms as a less expensive and speedier option for determining licensing disputes with CMOs.

The Copyright Act provides civil remedies for infringement of copyright. Licensing bodies/collective management organisations usually administer thousands of copyright works or sound recordings and, in cases of infringement, it would be virtually impossible for such entities to prove infringement of each work or sound recording in their extensive repertoire. The effect of Section 39 of the Act, which makes 'wide injunctions' available to licensing bodies, is that, once infringement is proved or admitted, the Court may grant an injunction to the entire repertoire of the licensing body although the infringement only related to one or some of the works or recordings.

In order to facilitate the collective licensing and royalty collection process of collective management organisations in Trinidad and Tobago, it has been recommended by some stakeholders that amendments be made to liquor licensing legislation and similar legislation⁵⁰ whereby a condition for the grant of such licences is that the applicant be in possession of a copyright and/or neighbouring rights licence from the relevant CMO. Such statutory measures would increase royalty collections and the attendant quantum of royalties distributed by CMOs in Trinidad and Tobago, which would ultimately redound to the benefit of right owners. However, it should be noted that this approach to policy is only one of many options promoted by collective management organisations that are also the likely beneficiaries of the policy. To minimise the moral hazard in policy-making, finalisation of the policy design should be accomplished by bringing all stakeholders into a sector-wide and multi-sector joint decision-making framework with which to address how the intellectual property of producers of copyright could best be respected and rewarded.

Copyright Law and Business Practice: In music, movies, works of mas and other such areas of copyright-based production, the underlying copyright is always owned by the authors. Consequently, the producer of the work, be it a work of mas or some other work, would be well-advised to employ the same informed business tactic of having written agreements with the authors of the copyright involved in the creation of the work, in order to really have control over its complete exploitation. The practice in movie production, where the norm is that every party involved in the production is engaged contractually, is perhaps the best practice in this respect. Thus, at the end of the production, there is no question as to who the owner of the final product is (however the law defines it). From a policy standpoint, the lack of that type of business and legal shrewdness in works of mas and other types of copyright-based production in Trinidad and Tobago appears to be the ultimate issue. The law is a living breathing thing that will evolve over time. Legal practitioners and policy-makers, while in the trenches lobbying, seem to have an important responsibility to promote the practice that industry clients operate their business within the realities of current laws and social conditions. In the case of policy-makers and related institutions, this is perhaps best treated as an overriding responsibility as the copyright sector evolves.

⁴⁹ Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Seventeenth Session, December 6 to 10, 2010, Geneva, WIPO GRTKF, IC /17/12, Annex II, p. 5.

⁵⁰ Liquor Licences Act Chapter 84:10 ; Cinematograph Act Chapter 20:10; Theatres and Dance Halls Act Chapter 21:03

8.4.1.4 Addressing digitisation

With the advent of digitisation and the availability of copyright products without physical media, the processes that linked the creator to the final consumer have been radically changed. This change has largely been in the processes of reproduction and distribution. The cost of producing the first copy of a copyright work such as a book remains quite high for the author and publisher and is not much affected by digitisation. However, in the digital domain, the cost of producing the second and subsequent units fall precipitously close to zero and remains at this low level indefinitely no matter how many copies are produced. With the advent of the internet, not only is the cost of production of copyright products in digital form perceived to be zero, but this digital network practically eliminates most costs of distribution. From the point of view of the consumer and some firms that use copyright output as inputs, copyright works in digital form have become free and there is increasing resistance to paying for digitised copyright output. However, no rational economic agent pursuing profit would produce any output if the price of her product were zero. There must be a reward for producing the first copy as well as subsequent copies. The author or other copyright producer must have a reasonable prospect of selling sufficient copies at a price that is sufficiently above zero, or of receiving adequate compensation in some other form (such as royalties) to allow her to recover the initial high cost of producing the copyright work. The new methods of reproduction and distribution of works in digital form have therefore created a great danger that the quality and quantity of copyright output will diminish because there will be less investment of financial and mental resources in the production of these products. This is already evident in the recorded music industry, where the major record-producing firms have been curtailing investment in new artists. In order to restore the balance between the interests of creators and users and to give creators the incentive to produce copyright works, new approaches to managing the production and distribution of copyright products in digital form are needed, including new legal means of redress, as well as technological measures such as various forms of legally sanctioned digital rights management systems.

The Internet as Global Market: The internet is a growing global market for copyright-based products and it is subject to the same patterns of market domination that characterise all markets. The evidence indicates that, in the value chain created by producing and distributing copyright goods over the internet, a form of centralisation and control is developing. Already, Apple iTunes dominates the legal distribution of recorded music. According to the New Music Express (online version), 80% of legal downloads of recorded music were from the iTunes platform.⁵¹ Thus, many owners of what is left of the recorded music industry in Trinidad and Tobago are turning increasingly to this platform to sell their products. Similarly, the sale of e-books is rapidly being dominated worldwide by a few firms located in the north Atlantic.⁵² According to CNet, in the 3rd quarter of 2010, one firm, Amazon, controlled 70 to 80% of the e-book market in the US.

The inexorable trajectory of the digitisation and distribution of copyright products will lead to the elimination of many jobs associated with the traditional production and distribution of these products in Trinidad and Tobago, as in the rest of the world. The bricks-and-mortar stores are being replaced by digital aggregators and retailers located overseas in the north Atlantic, and local authors and publishers are already turning to these firms to distribute their works even to consumers in the local market.

The challenge for Trinidad and Tobago is to find a profitable space in the new environment in order to manage the growing risk of finding itself participating in the value chain of the digital economy mainly as consumers or mere bit players on the edge of the digital stage. As the profiles of IBG and Teleios show, there are already some firms that are prepared to embrace digitisation as an opportunity to produce new and innovative products. These recommended policy initiatives point to a need to adjust the education system as well as the trade and commerce stance of the country. The general recommendation is accelerated development of skills and business practices to participate in the digital economy as *producers* of digital goods. Policies in the copyright sector should be deliberately geared to increasing the incentives for new firms in the establishment, innovation, and growth stages of their development.

8.5 Copyright Law and Public Policy in Tobago

The law pertaining to copyright of works created in Tobago is governed by the national Copyright Act Chapter 82:80 and its amendments. However, residents of Tobago have to look to the Tobago House of Assembly for policy making and representation at the governmental level on matters to do with copyright.

⁵¹ http://www.nme.com/blog/index.php?blog=10&title=who_will_break_itunes_monopoly&more=1&c=1&tb=1&pb=1

⁵² http://reviews.cnet.com/8301-18438_7-20012381-82.html

The 5th Schedule of the Tobago House of Assembly Act, 1996 contains all the areas for which the Tobago House of Assembly has responsibility. It does not specifically include the term 'copyright' or 'intellectual property', but it confers responsibility on the THA for a host of areas, many of which are related to, or have the potential to impact, copyright protection issues. Thus, it is suggested that, although not specifically stated in the 5th Schedule, the responsibility for the management and development of copyright in Tobago and for making policy as it relates to copyright resides with the Tobago House of Assembly. Accordingly, the thrust for copyright protection and enforcement of the copyright law in Tobago should come from the THA.

The areas for which the THA is given responsibility in the 5th Schedule of the Act that have implications for copyright are as follows:

1. State (Lands)
2. Land and Marine Parks
3. Archives
4. Tourism
5. Sports
6. Culture and the Arts
7. Community Development
8. Cooperatives
9. Fisheries.

The relevance of the foregoing lies in their potential to generate creative works and thus to contribute to the economy of Tobago through copyright more than obtains at present. In discharging its responsibility for these areas, the THA can formulate and implement a dynamic vision for harnessing the creative spirit of citizens of Tobago in every area of endeavour. Some of the trends and possibilities are worth mentioning:

- State lands in Tobago have been distributed by the THA to low-income and disadvantaged persons for the construction of their homes. Some extraordinary designs of low-cost houses have been an outcome of this programme. The production of CDs and booklets containing these creative and functional designs can be used to market and export/market these home designs to other places.
- Similarly, a vibrant boat-building industry can be developed for the construction of pirogues and other fishing vessels. It is widely known among fisher folk that particular types of fishing activity require vessels specially designed for that purpose. In metropolitan countries, vessel design is copyrighted and cannot be replicated at will as is done in the Caribbean. A vibrant boat-building industry can thus be encouraged by the THA and marketed to fisher folk in other counties with interest in particular types of fishing.
- As the governmental body that has responsibility for archives, culture, and the arts, the THA can devise projects that would encourage historians and writers to produce works that capture the true history of the island. There is at present a paucity of material that collates Tobago's history and cultural past in an authentic manner. A huge body of folklore and community knowledge in villages goes unexplored or is diminished with the passing of older folk. This is mainly because there is no mechanism for capturing or preserving the information that reposes in a community. Again, villagers can be encouraged to record and preserve their knowledge of the island's history and culture. In this way, the community would be in control of what is disseminated as its history. Another issue is the vehicle or community entity by which such community knowledge can be extracted, packaged, and disseminated and, in this regard, the idea of cooperatives and non-profit entities becomes relevant. The THA could move to guide villagers on how they can set up the community entity and pursue the objective of collating information on community history and culture in an authentic manner. The THA's role in this regard would be in keeping with its responsibilities under the THA Act.

The Heritage Festivals: The THA has a current vested interest in copyright protection and enforcement by virtue of the fact that it is the organiser and/or producer of several annual festivals which involve the production of original intellectual creations of musical, artistic, literary and dramatic works, as well as their reproduction, translation, adaptation or modification. The THA should be vigilant to ensure that it complies with copyright laws by obtaining the necessary licences and paying for the use of copyright works and neighbouring rights, thereby rewarding right holders and providing a financial incentive to encourage creativity and investment in creativity. The THA should also ensure that the copyright protection provided under the Act is enforced, and should collaborate with national bodies and agencies to formulate amendments to the law to protect

other categories of deserving works that are not now protected, but which, if protected, would stimulate development of the copyright-based activities.

Some of the major festivals which the THA has produced, sponsored, or had an interest in are:

- Carnival (involving, e.g., works of mas, speech bands, robbers, wild Indians)
- The Tobago Heritage Festival (which includes folk festivals; cultural and dramatic productions, most of which are created by various communities; speech band presentations; folktales and folklore; wedding speeches; proverbs and riddles; harvest choir festivals)
- The Music and Arts Festival
- The Jazz Festival
- The Blue Food Festival
- The Sea Food Festival
- The Goat Race Festival
- Fisherman's Day.

The works involved in these festivals are both original and derivative. They include poetry, recipes, booklets, dramatic productions and re-enactments, speeches, dances and musicals, fiddle and tambourine tunes, costume designs, and boat design and boat-building.

An issue of concern is that some domestic and international tourists who attend these festivals video-tape the productions without any restrictions. Many have been known to exploit these presentations commercially through the production of videotapes and postcards, with hardly any returns for the local creator or producer. Thus, a local individual, a group, community, or even the THA itself is deprived of the revenue from the exploitation of their work. The THA has a special responsibility to ensure that the communities and local producers derive economic benefits from their creations and must therefore put in place the necessary mechanism to achieve this.

Copyright has the potential to make a much greater contribution to the economy of the island of Tobago than it is currently making. The THA is regarded as the body best positioned to ensure that this is addressed expeditiously. It needs to focus more attention on securing protection for the works –original, derivative, and folkloric–produced at its highly-patronised festivals in the different communities of Tobago. Accordingly, it should seek amendments to the existing law or to have the Government of Trinidad and Tobago create and enact new legislation to include protection for work produced for these festivals.

The THA also has a vested interest in ensuring that the Copyright Act provides optimum protection to its artistes and other creative citizens. A significant course of action would be to set up a Committee constituted of persons with the appropriate expertise to study the Act and make recommendations for how it can be amended to meet the needs that are not now being met. Critically, the Committee should also review the Act to determine whether the THA now has the power to formulate and implement the necessary measures on its own. Finally, the THA needs to ensure that proposals to amend the constitution of Trinidad and Tobago would confer on it powers to design and implement policies and measures that would achieve the policy changes identified above.

Annexes

Annex I: Contribution of Copyright to Trade

Table A-1.1: The Contribution of Copyright to Trade in Trinidad and Tobago, 2000, 2007, 2011 Selected Industries

	2000			2007			2011		
	Exports Copyright	Imports Copyright	Trade Balance	Exports Copyright	Imports Copyright	Trade Balance	Exports Copyright	Imports Copyright	Trade Balance
Core Copyright Industries									
Press and Literature	52.08	98.63	-46.56	63.12	254.59	-191.46	34.53	155.97	-121.44
Motion Picture, Video and Sound	0.00	0.00	0.00	0.00	0.72	-0.72	0.00	1.23	-1.23
Radio and Television Broadcasting	30.99	66.66	-35.67	216.44	196.32	20.11	230.81	0.00	230.81
Photography, Visual and Graphic Arts	3.34	2.34	0.99	2.23	2.05	0.19	1.30	0.00	1.30
Software, Databases and New Media	0.00	0.00	0.00	6.32	0.01	6.31	2.48	0.00	2.48
Advertising Services	0.00	0.02	-0.02	12.21	0.03	12.18	8.12	0.00	8.12
Copyright Collective Management Societies	2.61	0.25	2.36	20.25	18.56	1.69	18.85	0.00	18.85
Works of Mas	2.98	0.00	2.98	1.18	1.08	0.10	1.51	0.00	1.51
Interdependent Copyright Industries									
TVs, Radios, VCR, CD and DVD Players, Electronic Gaming and Equipment	0.05	26.15	-26.11	0.01	127.13	-127.12	0.01	113.72	-113.71
Pan	3.64	0.47	3.16	3.19	0.15	3.04	1.21	0.40	0.81
Other Musical Instruments	3.94	3.37	0.57	3.59	5.42	-1.82	1.29	8.94	-7.65
Photographic and Cinematographic Instruments	0.00	3.07	-3.07	0.00	4.95	-4.95	0.00	5.16	-5.16
Photocopiers	0.00	0.00	0.00	0.00	0.88	-0.87	0.00	0.37	-0.37
Blank Recording Material	0.00	0.00	0.00	0.01	9.98	-9.97	0.00	7.17	-7.17
Paper	381.40	529.78	-148.37	487.40	715.85	-228.44	319.65	680.04	-360.39
Partial Copyright Industries									
Tailors, Dressmakers and Shoe Repair	0.04	0.04	0.00	0.01	0.01	0.00	0.01	0.00	0.01
Leather and Leather Products	0.18	5.07	-4.89	0.08	11.23	-11.15	0.02	11.50	-11.48
Pottery and China, Glass and Glass Products	6.90	112.82	-105.92	6.95	251.61	-244.67	4.09	211.82	-207.73
Jewellery, Coins	4.80	14.17	-9.37	3.82	46.72	-42.91	1.15	34.53	-33.38
Architecture, Engineering and Surveying	0.00	0.00	0.00	10.50	0.02	10.48	41.73	0.00	41.73
Furniture Design and Production	51.03	102.32	-51.29	76.94	347.06	-270.13	45.10	290.12	-245.02
Interior Design	0.00	0.00	0.00	11.08	0.02	11.06	14.15	0.00	14.15
Non-dedicated Support Industries									
General Transportation	4.84	909.67	-904.83	8.94	2667.97	-2659.04	10.26	2036.75	-2026.49
Telephony and Internet	0.07	41.55	-41.49	0.99	741.53	-740.54	0.19	923.24	-923.05

Annex II: A Framework for the Design of Copyright Policy in Trinidad and Tobago

Introduction

One of the central contributions of the copyright sector is to improve competitiveness in the Trinidad and Tobago economy. This Annex provides a framework for copyright policy in the form of an estimated nexus of profitability and competitiveness. Competitiveness is defined in terms of labour productivity and import productivity, with the latter defined to include the exchange rate.

Basic Empirics of Labour Productivity

The traditional linear relationship is between the logarithm of labour productivity (**labprod**) and the logarithm of the capita-labour ratio (**caplabr**), which is the typical Cobb-Douglas functional form. If, instead of labour productivity, we use a proxy in the form of the average returns to outlays of work and skill, then the variables are directly comparable and their joint contribution to competitiveness can be analysed. The first question is; what are the parameters of the nexus? The second is; do import productivity and labour productivity, coming from such different perspectives, form an integrated conceptual framework for the analysis of the competitiveness of countries? The third question is; what are the policy implications of the results and, in particular, the implications for copyright policy?

On the basis of a correlation of 0.71, the log-linear regression relationship is,

$$1. \ln \widehat{\text{labprod}} = -0.70_{(0.000)} + 0.54_{(0.003)} \ln \text{caplabr} \quad (\text{Adj}R^2 = 0.48; \text{RMSE} = 0.91)$$

In this equation (1), the measure of labour productivity is output per worker, not output per hour worked, but the results are still a good basis for policy design. After all, workers are hired, and output from effective hours worked has to be elicited through managerial efficiency, with effects that show up in the output per worker over a longer period than an hour. In a cross-sectoral setting, this is a very strong relationship, accounting for about 48% of the variation in labour productivity. It indicates that a 10% increase in the capital-labour ratio would increase labour productivity by about 5.4%. The practical implication for policy design is to promote growth of the capital-labour ratio, subject to the condition of equation (1), which is that the domestic capital share of the investment grows faster than the overall investment, hence faster than the imported capital to be consumed.

Basic Empirics of Import Productivity

However, if the overriding social burden is the scarcity of foreign exchange, then the affected society must explore the options for saving foreign exchange through its production system – enter import productivity. It can be shown that the balance of payment is a function of the productivity of imports, and that, consequently, the productivity of imports is a function of the export-import ratio, the export-output ratio, and the structure of imports. Import productivity contributes to the measurement of the capacity to sell in global markets.

The model of import productivity is driven by the additional claim that it is a function of the structure of capital. The basic computation underlying the claim is a correlation of 0.77 between the logarithms of the variables, i.e., (**ln(impprod)** and **ln(shdcap)**). So, there is a strong linear relationship between **ln(impprod)** and **ln(shdcap)**, and the associated (regression) line is estimated as:

$$2. \ln \widehat{\text{impprod}} = 2.48_{(0.000)} + 2.11_{(0.000)} \ln \text{shdcap} \quad (\text{Adj}R^2 = 0.58; \text{RMSE} = 0.99)$$

The coefficient estimates mean that a 1% growth in the share of domestic capital to total capital would cause import productivity to grow by about 2.1%. Both model coefficients have a very low probability of being false positives. Moreover, the explanatory power of the model is quite strong, especially when one takes account of the fact that it is based on cross-sectoral (SUT) data.

Exogenous Variables and Model Specification Issues

From an econometric standpoint, one would expect interdependence of the residuals of equations that explains profits, import productivity, and labour productivity. So, a system of equations must be considered, whose parameters are estimated with a system estimator. In this report, we use (3SLS) since specification tests with two-stage least-squares suggest that there is no significant heteroscedasticity in the residuals that would invalidate the use of this method.

Apart from the variables in the decompositions, I use the following explanatory variables, some of which could be extracted from underlying production functions and some from the principles of distribution, as well as of mark-up pricing and its links to trade:

- (a) **The structure of capital (*shdcap*)** – measured as the ratio of domestic capital consumption to total capital consumption. In the model of the mark-up rate, the variable enters as the quadratic (*shdcap2*).
- (b) **The capital-labour ratio (*caplabr*)** – measured as gross capital consumption divided by employment. Gross capital consumption includes both fixed and circulating capital.
- (c) **Employment per unit of domestic capital (*skildcap*)** – measured as employment divided by the consumption of domestic capital.
- (d) **The wage share (*wagshar*)** – measured as the ratio of compensation to value added.
- (e) **Import penetration (*cimppen*)** – measured as the ratio of consumer imports to domestic shipments.
- (f) **The export-imported inputs ratio (*expimpr*)** – measured as exports divided by imported inputs.

The variables (*shdcap*), (*caplabr*), and (*skildcap*) measure different aspects of the capacity to absorb, adopt, and adapt international technology. The export share of value added is labelled *expout*.

Specification checks using a multivariate regression (**Annex 2 Table 1**), with *ln labprod* and *ln impprod* as the two dependent variables and using the full list of exogenous variables, indicate that *ln shdcap* is not a significant contributor to *ln labprod*.⁵³ In as much as *skildcap* is a component of the reciprocal of *caplabr*, the core identifier of *ln labprod* is *ln wagshar*, while *ln shdcap* plays a similar role in the *ln impprod* equation. Further, since we treat *ln labprod* as endogenous, it transmits the influence of the *ln wagshar* variable to *ln impprod*. Thus, we choose to exclude *ln wagshar* from the *ln impprod* equation.

⁵³ The multivariate regression uses a joint estimator and also estimates the between-equation covariances.

Table A-2.1: Estimated Coefficients of Multivariate Regression with Labour and Import Productivity

Equation	Obs	Parms	RMSE	"R-sq"	F	P
limpprod	38	7	.5976251	0.8689	34.25254	0.0000
llabprod	38	7	.7015805	0.7412	14.79607	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
limpprod					
lshdcap	1.910408	.1983946	9.63	0.000	1.50578 2.315036
lskildcap	.4252435	.0736723	5.77	0.000	.2749879 .5754991
expimpr	.0365608	.0124091	2.95	0.006	.0112523 .0618693
cimppen	-.4474663	.2043248	-2.19	0.036	-.8641896 -.0307431
expout	-.154859	.0540816	-2.86	0.007	-.2651591 -.044559
lwagshar	-.4614134	.1430252	-3.23	0.003	-.7531153 -.1697114
_cons	1.057059	.3454407	3.06	0.005	.3525284 1.76159
llabprod					
lshdcap	-.116912	.2329049	-0.50	0.619	-.5919246 .3581007
lskildcap	-.5076328	.0864874	-5.87	0.000	-.684025 -.3312406
expimpr	.0049775	.0145676	0.34	0.735	-.0247333 .0346884
cimppen	-.0817807	.2398666	-0.34	0.735	-.5709919 .4074305
expout	-.1659122	.0634889	-2.61	0.014	-.2953986 -.0364257
lwagshar	-.4630286	.1679041	-2.76	0.010	-.8054713 -.1205858
_cons	-.888999	.4055293	-2.19	0.036	-1.716081 -.0619167

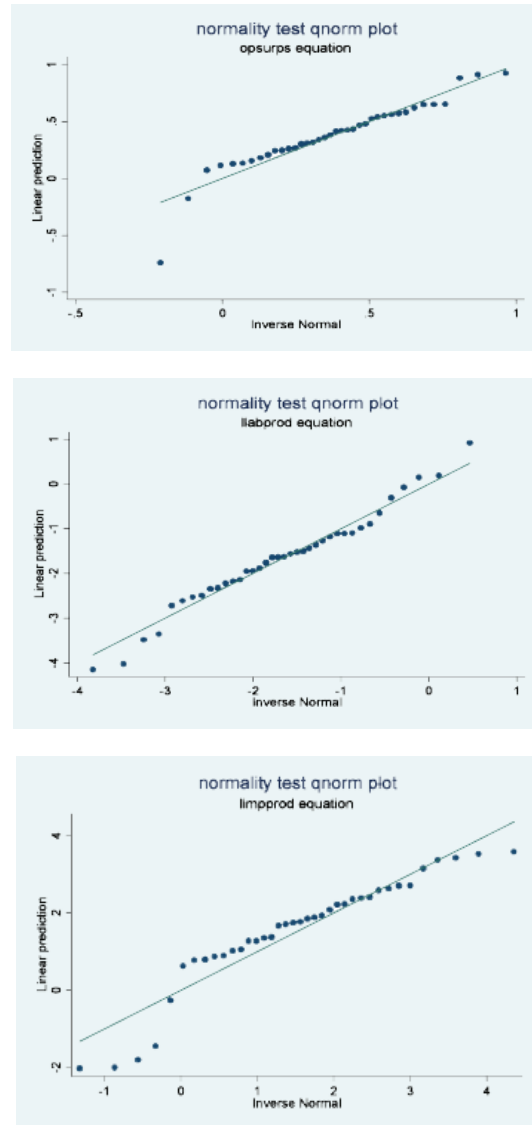
The Estimated Parameters of the Policy Model

The resulting estimated system is:

$$\ln(\text{opsurps}) = 0.891 + 1.14 \ln(\text{labprod}) - 2.197 \ln(\text{shdeep}) + 2.157 \ln(\text{shocap}) + 1.711 \ln(\text{capcimp}) - 1.417 \ln(\text{emp}) + 0.57 \ln(\text{chocap}) - 0.6505 \ln(\text{improd}) + 1.123 \ln(\text{improd})$$

The reported Chi-squared statistics indicate that the equations are strong representations of the behaviour of the dependent variables (*opsurps*, *lnimprod* and *lnlabprod*). Further, all model coefficients are statistically significant at the 10% level or better, and most are statistically significant at the 1% level or better. The main thing to look for in judging these regressions is whether the residuals are normally distributed. In that regard, the q-norm plots (q-qplots) in Figure 7.1 look quite favourable for each equation, bearing in mind that we are working with sector aggregates (that are not strictly independent).

Figure A-2.1: Plots of Regression Residuals



The Case for the Unified Conceptual Framework for Understanding Competitiveness

Canonical correlations of the right-side linear combinations, reported in Table A-2.2, indicate that one might think of import productivity and labour productivity as comprising a unified conceptual framework for the evaluation of competitiveness driving the mark-up of the sectors and, hence, the core capacity to finance development from retained earnings, in that the two views are closely correlated. That is, when linear combinations of the arguments in each of the structural equations in (11) are sought that maximise the correlation of the linear combinations, the result is a near-perfect correlation of 0.96 between the best linear combination of the labour productivity factors and the best linear combination of the import productivity factors. Moreover, all of the test statistics are highly significant.

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