

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



Creative Industries Series No. 5

Acknowledgement and thanks for front cover illustrations (from top left clockwise): Bradley Strong, Goodview, Virginia ([brad@bradstrong.net](mailto:brad@bradstrong.net)); [www.freerangestock.com](http://www.freerangestock.com); Xuan Che ([rosemania@gmail.com](mailto:rosemania@gmail.com)); Chance Buell ([www.ByChanceProductions.com](http://www.ByChanceProductions.com)); Pavol Spani; [www.freerangestock.com](http://www.freerangestock.com); [www.freerangestock.com](http://www.freerangestock.com); [www.freerangestock.com](http://www.freerangestock.com); Theodore Scott

## Table of Contents

---

<b>The Economic contribution of Copyright-Based Industries in China</b>	<b>3</b>
---	----------

---

<b>The Economic contribution of Copyright-Based Industries in Finland</b>	<b>123</b>
---	------------

---

<b>The Economic Contribution of Copyright-Based Industries in Pakistan</b>	<b>167</b>
--	------------

---

<b>The Economic Contribution of Copyright-Based Industries in Panama</b>	<b>221</b>
--	------------

---

<b>The Economic contribution of Copyright-Based Industries in Slovenia</b>	<b>299</b>
--	------------

---



# The Economic Contribution of Copyright-Based Industries in China



## Introduction

---

In 2007, National Copyright Administration of the People's Republic of China (NCAC) and World Intellectual Property Organization (WIPO) decided to carry out the project: "Survey on The Economic Contribution of Copyright-Based Industries in China". The primary purpose of the project was to find out the contribution rate of Chinese copyright industries to the national economy and to survey their basic conditions and developing trends, so as to raise public and political awareness of the issue and underline the great potential of the creative and information sector. The project aimed to provide beneficial experience and help for guiding and supporting the development of Chinese copyright-based industries as well as to be a reference for related laws revisions and public policies setting. The project has been commissioned to the Chinese Institute of Publishing Science (CIPS), the direct subsidiary of NCAC.

NCAC has given great importance to the project and convened a project leading group with the Director of NCAC Liu Binjie as the group supervisor, the Deputy Director Yan Xiaohong as deputy supervisor, the Head of the Copyright Administration Department Wang Ziqiang, Jiang Maoning from the Division of the International Office of the Copyright Administration Department and some others as members of the leading group. They have put forward many directional and instructional suggestions for the project which guarantees its complete success.

Meanwhile, WIPO have provided financial assistance and technical instructions as well. The Deputies Secretary-General of WIPO Michael Keplinger and Narendra Sabharwal, the Assistant Secretary-General of WIPO Binying Wang, the Executive Director of OSUIPD Sherif Saadallah and the Acting Head of the Creative Industry Department Dimiter Gantchev were in charge of the implementation of the project. The President of *Economists Incorporated* Stephen Siwek and the economist from Singapore IP Academy Chow Kit Boey were invited by WIPO as technical consultants. During the implementation of the project, Dimiter Gantchev, Stephen Siwek and Chow Kit Boey visited China several times. They had put forward many constructive technical ideas and had offered a lot of precious reference materials. The entire project working group have benefited a great deal from their guidance.

During the surveying period, the project had received the support from many administrative departments and industrial associations including the General Administration of Customs, the National Bureau of Statistics of China, the State Administration of Foreign Exchange, the Ministry of Industry and Information Technology, the General Administration of Press and Publication, the China Federation of Literature and Art, the Chinese Writers Association, the China National Light Industry, the Chinese Advertising Association, the Internet Society of China and so on. They had offered detailed basic data and information.

With the guidance and help of all of the above: departments, leaders and professionals and also under the leadership of the Director of CIPS Hao Zhensheng and the Deputy Directors Xin Guangwei and Wei Yushan, CIPS convened the Project Working Group of the Deputy Director of Copyright Studies Center Zhao Bing, the Deputy Director of Publishing Economy Studies Department Zhang Xiaobin and some other related research staff. After two years of survey and research, the project has been completed successfully in accordance with the original plan. The final result of the project is the report "The Economic Contribution of Copyright-Based Industries in China".

## Table of Contents

---

<b>Abstract</b>	<b>13</b>
<b>Foreword</b>	<b>15</b>
<b>1. RESEARCH BACKGROUND</b>	<b>15</b>
<b>2. SIGNIFICANCE</b>	<b>17</b>
<b>3. OBJECTS</b>	<b>19</b>
3.1 Definition of Chinese copyright-based industries	19
3.2 Indicators of Quantitative Analysis of the Economic Contributions of Chinese Copyright-Based Industries	19
3.2.1 Indicators	19
3.2.2 Annual Data	20
<b>4. METHODOLOGY</b>	<b>21</b>
4.1 Literature review	21
4.2 Questionnaires	22
4.3 Field Survey	22
4.4 Quantitative Analysis	22
4.5 Comparative Study	22
<b>5. REPORT</b>	<b>23</b>
<b>Chapter 1. Definition and Scope of Chinese Copyright-Based Industries</b>	<b>24</b>
1.1 Definition of Chinese Copyright-Based Industries	24
1.1.1 Current definition	24
1.1.2 Definition of Chinese Copyright-Based Industries	26
1.2 Scope of Chinese Copyright Property	27
1.2.1 Chinese Copyright Legal System	27
1.2.2 Copyright Market within the Chinese Legal Framework	29
<b>Chapter 2. Specific Classifications of Chinese Copyright-Based Industries</b>	<b>31</b>
2.1 Classification Method	31
2.1.1 Copyright-Based Industry Classification Corresponding to National Economic Industrial Classification	31
2.1.2 Copyright-Based Industries Classification Corresponding to Commodity Classification for Customs	31
2.1.3 Copyright-Based Industries Classification Corresponding to International Balance of Payment Classification	31
2.2 The Specific Classification of Core Copyright Industries	32
2.2.1 The Definition and Categorisation of Core Copyright Industries	32
2.2.2 Classification of Core Copyright Industries	32
2.3 The Specific Classification of Interdependent Copyright Industries	33
2.3.1 Definition of Interdependent Copyright Industries	33
2.3.2 Classification of Interdependent Copyright Industries	33
2.4 The Specific Classification of Partial Copyright Industries	34
2.4.1 Definition of Partial Copyright Industries	34
2.4.2 Classification of Partial Copyright Industries	34



2.5	The Specific Classification of Non-Dedicated Industries	34
2.5.1	Definition of Non-Dedicated Support Industries	34
2.5.2	Classification of Non-Dedicated Support Industries	34
<b>Chapter 3. Data Collection and Calculation of the Economic Contribution of Chinese Copyright-Based Industries</b>		<b>36</b>
3.1	Basic Data	36
3.1.1	Source of the Data	36
3.1.2	Calculation Methods	36
3.2	Copyright Factor	39
3.2.1	Interdependent Copyright Industries	39
3.2.2	Partial Copyright Industries	40
3.2.3	Non-Dedicated Support Industries	40
<b>Chapter 4. The Economic Contribution of Chinese Copyright-Based Industries</b>		<b>42</b>
4.1	Summary	42
4.1.1	The Economic Contribution of Chinese Copyright-Based Industries in 2004	42
4.1.2	The Economic Contribution of Chinese Copyright-Based Industries in 2006	44
4.1.3	Comparison of Industrial Value-Added between Copyright Industries and Other Industries	46
4.2	The Economic Contribution of Core Copyright Industries	48
4.2.1	The Economic Contribution of Chinese Core Copyright Industries in 2004	48
4.2.2	The Economic Contribution of Chinese Core Copyright Industries in 2006	50
4.3	The Economic Contribution of Interdependent Copyright Industries	52
4.3.1	The Economic Contribution of Chinese Interdependent Copyright Industries in 2004	52
4.3.2	The Economic Contribution of Chinese Interdependent Copyright Industries in 2006	53
4.4	The Economic Contribution of Partial Copyright Industries	55
4.4.1	The Economic Contribution of Chinese Partial Copyright Industries	55
4.4.2	The Economic Contribution of Chinese Partial Copyright Industries in 2006	57
4.5	The Economic Contribution of Non-Dedicated Support Industries	59
4.5.1	The Economic Contribution of Chinese Non-Dedicated Support Industries	59
4.5.2	The Economic Contribution of Chinese Non-Dedicated Support Industries in 2006	61
<b>Chapter 5. International Comparison</b>		<b>62</b>
5.1	Brief Overview of the Researches in Different Countries	62
5.1.1	The Differences of Present Studies	62
5.1.2	The Results of Current Studies	63
5.2	The Research in Several Representative Countries	65
5.2.1	The US	65
5.2.2	The UK	65
5.2.3	Canada	66
5.2.4	Singapore	67
5.2.5	European Union	67
5.3	Comparison of Research Results between China and Other Countries	68



<b>Chapter 6. Conclusions</b>	<b>70</b>
6.1 An Overview of the Development of Chinese Copyright-Based Industries	70
6.1.1 In terms of the proportion, Chinese copyright-based industries have taken shape and copyright has already shown remarkable influence on the national economy.	70
6.1.2 In terms of the growth rate, the annual growth rate of value-added of copyright-based industries is higher than that of GDP, copyright-based industries are crucial to economic growth.	70
6.1.3 Compared with other countries, the contribution of Chinese total copyright-based industries to the national economy is relatively high but the core copyright industries should make more progress.	71
6.2 Developing the Environment for Chinese Copyright-Based industries	71
6.2.1 China has established a relatively complete copyright protection system which lays foundation for the development of the copyright-based industry.	71
6.2.2 Governments of various levels take positive measures to promote the development of copyright-based industry, still more guidance and supports are needed.	71
6.2.3 Partial copyright industry staff has low consciousness of copyright and there are serious pirate situations which have affected the development of the copyright-based industry.	72
6.3 Suggestions for Promoting the Development of Chinese Copyright-Based Industries	72
6.3.1 Improve Statistical System; Establish Professional Classification of Copyright-Based Industries	72
6.3.2 Strengthen Propaganda and Education; Heighten Staff's Awareness of Copyright	72
6.3.3 Formulate Copyright Policies; Promote the Coordinated Development of Regional Economy	73
<b>APPENDIX 1 THE SPECIFIC CLASSIFICATION OF COPYRIGHT-BASED INDUSTRIES IN CHINA</b>	<b>74</b>
<b>ANNEX: STUDIES OF PARTIAL COPYRIGHT INDUSTRIES</b>	<b>94</b>
<b>1. CHINESE GARMENTS, TEXTILES, HATS AND SHOES</b>	<b>94</b>
1.1 General Survey of Chinese Garments, Textiles, Hats and Shoes Industry	94
1.2 The Relationship of Garments, Textiles, Hats and Shoes with Copyright	94
<b>2. CHINESE JEWELLERY AND COIN</b>	<b>97</b>
2.1 General Survey of Chinese Jewellery and Coins Industry	97
2.1.1 The Jewellery	97
2.1.2 The Coins	97
2.2 The Relationship of Jewellery and Coins with Copyright	97
<b>3. CHINESE HANDICRAFTS</b>	<b>99</b>
3.1 General Survey of Chinese Handicraft Industry	99
3.2 The Relationship of Handicrafts and Copyright	99
<b>4. FURNITURE INDUSTRY IN CHINA</b>	<b>100</b>
4.1 A Brief Review of Chinese Furniture Industry	100
4.2 Furniture and Copyright	101
<b>5. CHINESE HOUSEWARES AND APPLIANCES</b>	<b>103</b>
5.1 Ceramics	103
5.1.1 Chinese Ceramic Industry	103
5.1.2 Ceramics and Copyright	104
5.2 Lamps and Lanterns	105
5.2.1 Chinese Lamp Industry	105
5.2.2 Lamps and Copyright	106
5.3 Glass	106

<b>6. WALLPAPER AND CARPET INDUSTRY IN CHINA</b>	<b>107</b>
6.1 A Brief Review of Wallpaper and Carpet Industry in China	107
6.2 Wallpapers, Carpets and Copyright	107
<b>7. TOYS AND GAME FACILITIES IN CHINA</b>	<b>108</b>
7.1 Industry Overview of Chinese Toys and Game Facilities	108
7.2 Toys, Game Facilities and Copyright	108
<b>8. ARCHITECTURES IN CHINA</b>	<b>108</b>
<b>9. INTERIOR DECORATION IN CHINA</b>	<b>109</b>
<b>10.THE MUSEUM SECTOR IN CHINA</b>	<b>109</b>
10.1 Industry Overview of the Museum Sector in China	109
10.2 Museums and Copyright	110
<b>11.A REGIONAL SURVEY OF CHINESE COPYRIGHT-BASED INDUSTRY</b>	<b>110</b>
<b>Questionnaire used in the pro-phase study</b>	<b>111</b>
<b>Questionnaire used in the latest study (the example of museums)</b>	<b>115</b>
<b>Regional Survey Report on Copyright-Based Industry</b>	<b>117</b>
<b>References</b>	<b>119</b>
Chinese references	119
English References	121

## Tables

---

<b>Table 1:</b>	Market Scope of Copyright-Based Industries within the Chinese Copyright Legal System	30
<b>Table 2:</b>	Classification of Copyright-Based Industry	34
<b>Table 3:</b>	Calculation Formulas of Industrial Value-Added Components	37
<b>Table 4:</b>	Copyright Factor of Chinese Copyright Industries	41
<b>Table 4.1</b>	Interdependent Copyright Industries	41
<b>Table 4.2</b>	Partial Copyright Industries	41
<b>Table 4.3</b>	Non-Dedicated Support Industries	41
<b>Table 5:</b>	The Economic Contribution of Chinese Copyright-Based Industries in 2004	42
<b>Table 6:</b>	The Economic Contribution of Chinese Copyright-Based Industry in 2006	44
<b>Table 7:</b>	Industrial Value-Added of Chinese Economic Industries and their Ratios to National GDP in 2004 and 2006	46
<b>Table 8:</b>	The value-added, employment and total commodity exports of Chinese core copyright industries in 2004	48
<b>Table 9:</b>	Total service trade exports of Chinese core copyright industries in 2004	48
<b>Table 10:</b>	The value-added, employment and total commodity exports of Chinese core copyright industries in 2006	50
<b>Table 11:</b>	Total service trade exports of Chinese core copyright industries in 2006	50
<b>Table 12:</b>	The economic contribution of Chinese interdependent copyright industry in 2004	52
<b>Table 13:</b>	The economic contribution of Chinese interdependent copyright industries in 2006	54
<b>Table 14:</b>	The economic contribution of Chinese partial copyright industries in 2004	56
<b>Table 15:</b>	The economic contribution of Chinese partial copyright industry in 2006	58
<b>Table 16:</b>	The economic contribution of Chinese non-dedicated support industries in 2004	60
<b>Table 17:</b>	The direct economic contribution of Chinese non-dedicated support industries in 2006	61
<b>Table 18:</b>	The economic contribution of copyright-based industries	64
<b>Table 19:</b>	Value-Added by Copyright-Based Industries in Countries or Regions	64
<b>Table 20:</b>	The Specific Classification of Core Copyright Industries Corresponding to the National Economy Industry Classification	74
<b>Table 21:</b>	The Specific Classification of Core Copyright Industries Corresponding to Customs Analysis Classification ( Four-Digit Code)	77
<b>Table 22:</b>	The Specific Classification of Interdependent Copyright Industries Corresponding to National Economy Industry Classification	78

<b>Table 23:</b>	The Specific Classification of Interdependent Copyright Industries Corresponding to Customs Analysis Classification	79
<b>Table 24:</b>	The Classification of Partial Copyright Industries Corresponding to the National Industries Classification Standards	83
<b>Table 25:</b>	The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs	86
<b>Table 26:</b>	The Classification of Non-Dedicated Support Industries Corresponding to the National Industries Classification Standards	93

## Diagrams

---

<b>Diagram 1:</b> The Composition of Industrial Value-Added of Chinese Copyright-Based Industries in 2004	43
<b>Diagram 2:</b> The Composition of Employment among Chinese Copyright-Based Industries in 2004	43
<b>Diagram 3:</b> The Composition of Total Export of Merchandise of Chinese Copyright-Based Industry in 2004	44
<b>Diagram 4:</b> The Composition of Industrial Value-Added of Chinese Copyright-Based Industry in 2006	45
<b>Diagram 5:</b> The Composition of Employment among Chinese Copyright-Based Industry in 2006	45
<b>Diagram 6:</b> The Composition of Total Export Goods of Chinese Copyright-Based Industry in 2006	46
<b>Diagram 7:</b> The Comparison of Industrial Value-Added between Copyright-Based Industry and Other Industries in 2006	47
<b>Diagram 8:</b> The Composition of Industrial Value-Added of Chinese Core Copyright Industries in 2004	48
<b>Diagram 9:</b> The Composition of Employment among Chinese Core Copyright Industries in 2004	49
<b>Diagram 10:</b> The composition of total value of export goods from Chinese core copyright industries in 2004	49
<b>Diagram 11:</b> The composition of value-added of Chinese core copyright industries in 2006	50
<b>Diagram 12:</b> The composition of employment of Chinese core copyright industries in 2006	51
<b>Diagram 13:</b> The composition of total value of export goods of Chinese core copyright industries in 2006	51
<b>Diagram 14:</b> The composition of value-added of Chinese interdependent copyright industries in 2004	52
<b>Diagram 15:</b> The composition of employment in Chinese interdependent copyright industries in 2004	53
<b>Diagram 16:</b> The composition of total value of export goods from Chinese interdependent copyright industries in 2004	53
<b>Diagram 17:</b> The composition of value-added of Chinese interdependent copyright industries in 2006	54
<b>Diagram 18:</b> The composition of employment among Chinese interdependent copyright industries in 2006	55
<b>Diagram 19:</b> The composition of total value of export goods from Chinese interdependent copyright industries in 2006	55
<b>Diagram 20:</b> The composition of industrial value-added of Chinese partial copyright industries in 2004	56

<b>Diagram 21:</b> The composition of employment among Chinese partial copyright industry in 2004	57
<b>Diagram 22:</b> The composition of total value of export goods from Chinese partial copyright industry in 2004	57
<b>Diagram 23:</b> The composition of industrial value-added of Chinese partial copyright industries in 2006	58
<b>Diagram 24:</b> The composition of employment in Chinese partial copyright industries in 2006	59
<b>Diagram 25:</b> The composition of total value of export goods from Chinese partial copyright industries in 2006	59
<b>Diagram 26:</b> The composition of industrial value-added of Chinese non-dedicated support industries in 2004	60
<b>Diagram 27:</b> The composition of employment among Chinese non-dedicated support industries in 2004	60
<b>Diagram 28:</b> The composition of industrial value-added of Chinese non-dedicated support industries in 2006	61
<b>Diagram 29:</b> The composition of employment among Chinese non-dedicated support industries in 2006	61
<b>Diagram 30:</b> Comparisons between Chinese Copyright-Based Industry and Other Countries' in 2004	68
<b>Diagram 31:</b> Comparisons between Chinese Copyright Industries and Other Countries' in 2006	69

## Abstract

---

In recent years, since the copyright-based industries are having tremendous influence on the economy, they have been reconsidered and analyzed from an economic perspective. One of the most important tasks is to provide quantifiable characteristics of the economic contribution of the copyright-based industries. With active promotion by WIPO, there have been more than 30 countries surveying the economic contribution of copyright industries since the 1970s when Canada and Sweden first carried out such studies. The existing experience of other countries indicates that these studies have raised public and political awareness of the issue and underlined the great potential of the creative and information sector.

Consequently, since 2007, NCAC and WIPO have begun to cooperate and entrust CIPS to carry out the first survey on the economic contribution of copyright industries in China. The objective of the study is to survey the economic contribution of the copyright-based industries and to provide quantifiable characteristics of this contribution by using the approach provided by WIPO. It contains three main indicators: industrial value-added, share in employment and contributions to foreign trade. Due to the limitation of statistics, this study only surveys and calculates the economic contribution of Chinese copyright-based industries in 2004 and 2006.

According to the definition and classification created by WIPO, Chinese copyright-based industries are industries in which all, or a portion of, the activities are related to works and other protected subject matter that may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales. In terms of their different extent of dependence on copyright, these industries can be categorised as core copyright industries, interdependent copyright industries, partial copyright industries and non-dedicated support industries.

The statistics for the economic contributions of Chinese copyright-based industries to national economy are as follows:

In 2004,

- the value-added reached 788.4 billion RMB or 4.9% of national GDP (Gross Domestic Product);
- they employed 6.16 million people or 5.6% of Chinese workers;
- total exports reached 92.2 billion USD or 15.5% of national gross export value.

In 2006,

- the value-added reached 1319.7 billion RMB or 6.4% of national GDP;
- they employed 7.63 million people or 6.5% of Chinese workers;
- total exports reached 149.3 billion USD or 15.4% of national gross export value.

This study is the first survey on the economic contribution of copyright-based industries in China. Due to the lack of detailed statistics, the limit of time, fund and experience, the study is just preliminary. However, based on the research findings and the results from other countries, we could at least get the following conclusions:

### 1. The general status of Chinese copyright-based industries

Chinese copyright-based industries have taken initial shape as a whole. The copyright industries have had a significant influence on the national economy. The research results from other countries showed that the growth rate of value-added by copyright-based industries was higher than that of GDP. The copyright-based industries, especially the creative activities, new technology and software service, are among the most prosperous areas in the economy and have played an important role in promoting the economic growth. Compared with other countries, the share of economic contribution achieved by Chinese total copyright industries is relatively high but the share of contribution by core copyright industries is promising to increase and the share of contribution by partial copyright industries is quite low.



## 2. Developing the environment for Chinese copyright-based industries

Broadly speaking, China has established a relatively complete copyright protection system which has laid the foundations for the development of copyright-based industries. The government at all levels has also issued a series of policies for promoting the development of copyright-based industries. It has been given more emphasis from all around. However, more policy guidance and support are needed and the developing environment should be improved. Employees in partial copyright industries have low awareness of copyright and the phenomenon of piracy is serious. This has both weakened the independent innovation and affected the development of copyright industries to a certain extent.

## 3. Suggestions for promoting the development of Chinese copyright-based industries

Firstly, improve the statistical system and establish a derivative classification of copyright-based industries, both to provide reference for defining and regulating Chinese copyright industries and to lay the foundation for the establishment and perfection of the related statistical system and industrial studies. Secondly, strengthen propaganda and education by heightening the employees' awareness of copyright. That way the copyright legal system could be widely known by the public and be used as a general norm when protecting people's own rights as well as respecting and safeguarding the rights of others. Thirdly, formulate copyright policies and promote the coordinated development of regional economy. With a vast territory and a long history, different regions in China differ in copyright-based industries' features. Most places have not formulated copyright policies suited to local copyright industries' development. Therefore, local governments should perfect copyright support policies, foster regional industries with special features and promote the coordinated development of the regional economy in accordance with local features and advantages of copyright industries.

## Foreword

### 1. Research Background

As a part of the intellectual property, copyright is a legal concept.<sup>1</sup> Therefore, traditionally, copyright has been considered in studies mostly from its legal perspective. In recent years, with fast development of the theory and practice of copyright, the understanding and study on its economic characteristics has become more intensive.

In academic area, *The Problem of Social Cost* written by Ronald H. Coase in 1960 has served as the foundation stone for legal economic analysis later on and it has been the basis for Ronald Coase to win the Nobel Economics Prize. In the following years economics has greatly influenced both law and legal practice. The book, *The Economic Analysis of Law* written by Richard Posner, professor at the University of Chicago Law School in 1973, symbolises the formal beginning of the legal economics champion. Nowadays legal economics occupies an unshakable status in American law schools, it has even changed the practice of law in the US.<sup>2</sup> The combination of the empirical economic analysis and normative economic analysis, which complement each other, has promoted and will continue to promote the development of legal research.<sup>3</sup> “The intellectual property is a natural domain for law and economic analysis, while copyright is an important form of the intellectual property.”<sup>4</sup> As a result, “the economic analysis of the doctrines in copyright law has been the subject of research by scholars interested in the intersection between law and economics”.<sup>5</sup>

Because of the development of digital techniques, the scope of objects protected by copyright has become larger and larger in modern society, which also brings about a high level of economic income. The copyright protection has laid the foundation for the quick development of industries like publishing, music, movie, broadcasting and software in the world. Accompanied by the increasing influence of copyright on the economy, great changes have taken place in people’s understanding of the concept of copyright. As WIPO has pointed out, copyright, which has been regarded as an obscure legal concept, is now linked with the daily life of an unprecedented number of people. That is why NCAC has put forward the slogan “copyright generates fortune” to the public.

At an age of fast growing knowledge and economy, people no longer examine copyright from a legal or cultural and artistic perspective but reconsider and analyse it from an economic perspective. One of the most important tasks is to provide quantifiable characteristics of the economic contribution of the copyright-based industries.

In accordance with the statistics of WIPO, since the 1970s when Canada and Sweden first carried out the surveys on the economic contributions of copyright-based industries, a lot of countries have also undertaken such studies. By the 1990s, the quantity and quality of the studies both had reached a higher level. So far, there are more than 30 countries having conducted such studies. In order to provide practical research tools for member countries and to strengthen the comparative possibility among different countries, WIPO prepared the *Guide on Surveying the Economic Contribution of Copyright-Based Industries* (The Guide) in 2003. It has promoted the studies of copyright industries all over the world.

The United States has surveyed the economic contributions of copyright-based industries since the 1990s. It is the most active country conducting this survey and its studies are also the most comprehensive and in-depth. American research methodology and experience have been adopted by many countries. Their study reports can be classified into two types: one is an annual report, the other is a comprehensive report combining data of many years. When the research framework, methodology and statistics have been set, an annual report could provide the up-to-date information and events of the development in copyright industries while a comprehensive report could summarise the developing trends of copyright industries in the span of a

<sup>1</sup>See *Intellectual Property Law*, Law Press, 2003, 3<sup>rd</sup> ed., p2.

<sup>2</sup>See Suli, “*Different Fates of Twin Brothers*”, Studies of Comparison, 2002.

<sup>3</sup>See Qian Hongdao, *Economic Analysis of Laws*, Tsinghua University Press, 2006, 1<sup>st</sup> ed.

<sup>4</sup>Typical thesis include *The Economic Analysis of Copyright Law*, from *Selection of Legal Economics*, Law Press, 2006, 1<sup>st</sup> ed.

<sup>5</sup>WIPO: *Guide on Surveying the Economic Contribution of Copyright-Based Industries*, Law Press, 2006, 1<sup>st</sup> ed., p6.

longer period. Meanwhile, due to the change of industries and statistics, the comprehensive report should also reflect the changes in the survey system of copyright industries. Therefore, the combination of the two reports is beneficial to a comprehensive and in-depth study of the current status and trends in copyright industries. The methodology used in the United States is relatively mature and stable. The first survey report was launched in 1990, then the 1977 to 1990 comprehensive report came into being in 1992. The third and fourth reports were the 1993 annual report and the 1977 to 1993 comprehensive report. After that, all the following reports have been annually launched, including the reports for 1996, 1998, 1999, 2000, 2002, 2004 and 2006. The comprehensive report from 2003 to 2007 has already come out in 2009.<sup>6</sup>

Canada was the first country conducting the survey of copyright-based industries. In 1977, Canada's Department of Supply and Services prepared the *Canadian Copyright: Law Revision Suggestions*. Later the *Canadian Patent Reporter* published the article *The Scale of Canadian Copyright-Based Industries*.<sup>7</sup> In the 2004 report, Canada took the statistics from 1991 to 2002 as its research objects. Therefore, Canada's survey takes a feature of continuity. What's more, Canada's report made a comparison between Canadian data and American and Australian data. The result shows that in general three indicators of the economic contributions of Canada copyright-based industries are slightly higher than Australia, but lower than the US.<sup>8</sup>

Singapore is the first Asian country carrying out the survey of copyright-based industries in terms of the economy with WIPO's approach. Singapore's survey began in November 2003 and the first report was proposed in 2004. Their study surveyed data for quite a long period, ranging from 1986 to 2001. They cut this period into several parts that are: 1986 to 1990, 1990 to 1995, 1995 to 2000 and 2000 to 2001. The comparison of long term data reflects the status of Singapore's copyright industries. Apart from the comparison of data covering many years of growth rate, Singapore also provided related annual data of sub-divisions of each category according to the copyright-based industries classification in WIPO's *Guide*. The methodology used by Singapore is similar to the one used in the United States. In terms of statistical comparison, Singapore selected the data of Austria, Belgium, France, Italy, Sweden, the United Kingdom, the European Union and other western developed countries. In 2007, the Singapore International Intellectual Property Institute updated the data of the economic contributions of copyright-based industries adding the statistics of 2002 and 2004.<sup>9</sup>

<sup>6</sup>See WIPO, *National Studies on Assessing the Economic Contribution of the Copyright-Based Industries*. (WIPO Publication No.624e 2006) and the following reports at [http://www.iipa.com/copyright\\_us\\_economy.html](http://www.iipa.com/copyright_us_economy.html):

Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy* (released in November 1990)  
 Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: 1977-1990* (released in September 1992)  
 Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: 1993 Perspective* (released in October 1993)  
 Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy:1977-1993*(released in January 1995)  
 Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: The 1996 Report* (released in October 1996)  
 Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: The1998 Report* (released in May 1998)  
 Siwek: *Copyright Industries in the U.S. Economy: The 1999 Report* (released in December 1999)  
 Siwek: *Copyright Industries in the U.S. Economy: The 2000 Report* (released in December 2000)  
 Siwek: *Copyright Industries in the U.S. Economy: The 2002 Report* (released in April 2002)  
 Siwek: *Copyright Industries in the U.S. Economy: The 2004 Report* (released in October 2004)  
 Siwek: *Copyright Industries in the U.S. Economy: The 2006 Report*

<sup>7</sup>See *Guide on Surveying the Economic Contribution of Copyright-Based Industries*, p8.

<sup>8</sup>Wall Communications Inc. *The Economic Contribution of Copyright-Based Industries in Canada: The 2004 Report* WIPO.National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. (WIPO Publication No.624e 2006)

<sup>9</sup>LEO Kah Mun, CHOW Kit Boey, LEE Kee Beng, ONG Chin Huat, LOY Wee Loon: *The Economic Contribution of Copyright-Based Industries in Singapore: The 2004 Report*, WIPO.National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. (WIPO Publication No.624e 2006) [http://www.ipacademy.com.sg/site/ipa\\_cws/resource/executive%20summaries/Economic\\_Contribution\\_2007\\_Exec\\_Summary\\_Oct%202008.pdf](http://www.ipacademy.com.sg/site/ipa_cws/resource/executive%20summaries/Economic_Contribution_2007_Exec_Summary_Oct%202008.pdf)

## 2. Significance

The relationship between copyright and economy is a complicated subject because it involves a wide range of fields in the economic life and it is a multi-disciplinary area in academic studies as well. Therefore, WIPO gave a positive and cautious explanation of the target and significance of the research on the economic contributions of copyright-based industries. According to the WIPO's *Guide*, "the scope of the Guide is confined to surveying the economic contribution of the copyright-based industries and providing quantifiable characteristics of this contribution"; however, it does not refer to such issues as the economic influence of copyright law itself, the social influence of copyright, the consequences of piracy, etc. As for the significance of the survey, WIPO underlines "The great merit of the surveys on the copyright-based industries carried out so far in various countries is that they have raised public and political awareness of the issue and underlined the great potential of the creative and information sector". That is because the copyright industries are based on the creation and spread of the "production" whose key feature is "creativity" and all the research results proved that "the contributions of copyright-based industries are larger than the common consideration of the public". Consequently, the research in some countries has promoted the passing of new copyright laws and the making of related policies.

This is especially significant for China, a developing nation where copyright has not been given full attention and where creativity awareness and abilities are in urgent need to be improved. In practice, through great efforts in the past twenty years, China has established a relatively complete copyright legal system. The copyright industries are also developing fast. However, the public, with an indifference to copyright, has not fully recognised the importance of copyright industries and other creative industries in the economic development.

In terms of academic research, Chinese scholars have never conducted research and quantitative study on the economic contributions of copyright-based industries; instead, they are limited to the introduction of the results from foreign countries<sup>10</sup> and to the discussion of the concept of copyright industries in China.<sup>11</sup> Indeed, copyright surely has created treasure, but how much treasure has it created and how to create more? Both are still questions in China.

Therefore, it is of great significance in China to conduct researches on the economic contributions of copyright-based industries both theoretically and practically.

Firstly, the research can help us to master the basic rules and developing tendency of Chinese copyright industries, as well as their status and function in the national economy. Thus, the government at various levels and the public can improve their understanding of copyright industries and realise the importance of copyright protection.

Secondly, the long term follow-up investigation can help people understand the developing rules of copyright industries. It can provide useful experiences and assistance to the support of copyright industries in China. Besides, the research will also provide reference data for the related law revision and policy making.

Thirdly, in terms of academic study, just as the *Guide* indicates, this research is "not a merely statistical exercise" but also a preliminary investigation into the copyright problems with a careful multi-disciplinary approach. "The traditional law, due to the lack of training in statistics and economics, can only discuss legal effects with words instead of specific practical statistical data. Consequently, the legal effect, an important legal analysis in jurisprudence, is often misled. The inter-disciplinary study of economics and law can give the law workers a new method and viewpoint, and they will benefit from the inter-disciplinary study in the long term."<sup>12</sup> We believe that, as the study progresses, its academic value in the fields outside the industrial research will arise, just like the great potential of copyright industries will be recognised gradually.

<sup>10</sup>eg. Ye Xin, Fan Wenjing, "Brief Introduction to US Copyright Industries in 2005", *Publishing Research*, 2007 (2).

Zhang Qin, "An Overview of Copyright Industries in the U.S. Economy", *Journal of Haidian University*, 2005 (1).

Yang Liya, "Comparison of Copyright Industries and Copyright System between China and U.S.", *Qilu Realm of Arts*, 2005 (4).

Shang Yong, "The Copyright Industries and Copyright Trade in the United States", *Intellectual Property*, 2002 (6).

<sup>11</sup>eg. Hu Zhiwu, "Copyright Industries in China", *China Publishing Journal*, 1998 (1).

Song Huixian, Zhou Yanmin, "Copyright Industries—World and China", *Publishing Reference*, 2002 (10).

Wang Pinhua, Xu Chunlin, "Analysis of Peculiarities of Copyright-based Industry", *Technology and Innovation Management*, 2007 (4).

<sup>12</sup>Qian Hongdao, *Economic Analysis of Law*, 1<sup>st</sup> edition, Beijing: Tsinghua University Press, 2006.

In order to draw on the experiences of the international studies on the economic contributions of copyright-based industries, the research in China follows the framework and method given by WIPO's *Guide*, it also learns from the research experiences from other nations. Of course, it is not a mechanical imitation but a "Chinese" research that is both in accordance with the international convention and reflecting the Chinese reality within the direction and framework of WIPO's *Guide*.

## 3. Objects

The target of this research is to investigate the Chinese copyright industries and to provide a quantitative analysis.

### 3.1 Definition of Chinese copyright-based industries

According to WIPO, copyright-based industries refers to “the activities or industries where copyright can play an identifiable role”<sup>13</sup>, and copyright-based industries can be classified into four groups: the core copyright industries, the interdependent copyright industries, the partial copyright industries and the non-dedicated support industries.

Based on the explanation provided by WIPO, the definition of Chinese copyright industries is: industries in which all, or a portion of, the activities are related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales. Meanwhile, we accept WIPO’s classification of the core copyright industries, the interdependent copyright industries, the partial copyright industries and the non-dedicated support industries.

The core copyright industries are industries that are wholly engaged in creation, production and manufacture, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter. The interdependent copyright industries are industries that are engaged in production, manufacture and sale of equipment which function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter. The partial copyright industries are industries in which a portion of the activities 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. The non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries.

### 3.2 Indicators of Quantitative Analysis of the Economic Contributions of Chinese Copyright-Based Industries

#### 3.2.1 Indicators

According to the research experience of other countries and the suggestions in WIPO’s *Guide*, this study adopted value-added, employment, exports and their shares of national data to measure the economic contribution of Chinese copyright-based industries.

Specifically, measuring the size of the copyright-based industries through their contribution to value-added is an industry-centered approach which accords with the desire to identify the contribution of the copyright-based industries. It reduces the chances of double counting and value-added input-output tables (and the surveys underlying them) are readily available for many countries. Employment is a variable of major importance in the economic analysis of productive activities and this is also the case with China, a country with a large population. The position of a national copyright-based industry in terms of the imports and exports of a country is an indicator that may reflect certain tendencies in economic development.<sup>14</sup>

These indicators, which reflect the economic status and importance of the copyright-based industries in one country, are mutually complementary and widely adopted by other countries. This is convenient for the comparison between countries. Therefore, this study selected the above indicators to measure the economic contribution of Chinese copyright-based industries.

<sup>13</sup>See also *Research Guide of Economic Contribution of Copyright Industries*, see the previous note, page 132.

<sup>14</sup>See also *Research Guide of Economic Contribution of Copyright Industries*, see the previous note, page 53-62.



### 3.2.2 *Annual Data*

The calculation of the economic contribution of Chinese copyright-based industries, especially the calculation of value-added, should be conducted at the level of industrial subcategories (four-digit classification code). Since Chinese official departments currently are not able to provide a comprehensive, complete and systematic value-added data of industrial subcategories, this study chose 2004 when the first national economic census year was held as a basis and surveyed the economic contribution of Chinese copyright-based industries in that year.

For the purpose of a dynamic research, this report studies the copyright-based industries in 2006 based on the 2004 survey. Due to the lack of the related data of the subcategories (four-digit classification code) in 2006, which is not an economic census year, we have had to estimate the value-added of Chinese copyright industries in 2006.



## 4. Methodology

### 4.1 Literature review

- (1) The study and use of related research reports. In order to establish the target and methods, this research reviews the relative documents about copyright industries both domestic and abroad; particularly, it analyses systematically WIPO's *Guide* and the reports<sup>15</sup> from those countries that have conducted such researches.
- (2) The study and use of officially announced statistical data. This study collects and analyses the existing and open statistical data<sup>16</sup>, especially the national one, and then establishes a database to verify the existing available statistical data and the data which needs further collection.
- (3) The study and use of unannounced official statistical data. With the assistance of the Census Center of the National Bureau of Statistics, the General Administration of Customs, the State Administration of Foreign Exchange and other industrial authorities and associations, this study collects and re-analyses the primitive statistics of relative industries and commodities.
- (4) The study of supplementary statistical data. As the official data cannot satisfy the need of the research completely, this study also collects and reorganises a huge amount of unofficial statistical data, such as the relevant industries reports<sup>17</sup> by some industries associations and research organisations. However,

<sup>15</sup>These reports include:

Stephen E. Siwek . Copyright Industries in the U.S. Economy.

WIPO. National Studies on Assessing the Economic Contribution of the Copyright –Based Industries. (WIPO Publication No. 624e 2006. Performance of Copyright Industries in Selected Arab Countries Egypt Jordan Lebanon Morocco Tunisia. ( WIPO Publication No. 916E 2003.

Japan Copyright Institute. Copyright White Paper-A view from the perspective of copyright industries.

The Economic Importance of Copyright ,publish by The Common Law Institute of Intellectual Property.

The Contribution of Copyright and Related Rights to the European Economy.

<sup>16</sup>Such documents include:

Office for the Leading Group of the First National Economic Census of State Council, *China Yearbook on Economic Census 2004*, Beijing: China Statistics Press, 2006.

National Bureau of Statistics of China, *China Statistical Yearbook 2005*, Beijing: China Statistics Press, 2005.

National Bureau of Statistics of China, *China Statistical Yearbook 2006*, Beijing: China Statistics Press, 2006.

National Bureau of Statistics of China, *China Statistical Yearbook 2007*, Beijing: China Statistics Press, 2007.

National Bureau of Statistics of China, *China Statistical Yearbook 2008*, Beijing: China Statistics Press, 2008.

National Bureau of Statistics of China, *China Statistical Yearbook on Construction 2005*, Beijing: China Statistics Press, 2006.

Census Center of National Bureau of Statistics of China, *The Data of Tertiary Industry of the People's Republic of China 2000*, Beijing: China Statistics Press, 2000.

National Bureau of Statistics of China, The Ministry of Science and Technology, *China Statistical Yearbook on Technology 2006*, Beijing: China Statistics Press, 2006.

National Bureau of Statistics of China, National Development and Reform Commission, The Ministry of Science and Technology, *China Statistical Yearbook on Hi-tech Industries 2006*, Beijing: China Statistics Press, 2006.

Department of Duty Collection of General Administration of Customs, *Commodity Catalogue of Chinese Customs 2006*, Beijing: China Customs Press, 2006.

Department of Duty Collection of General Administration of Customs, Department of Statistics, *Commodity Catalogue of Chinese Customs 2007*, Beijing: China Customs Press, 2007.

Department of Duty Collection of General Administration of Customs, *Commodity Catalogue of Chinese Customs 2009*, Beijing: China Customs Press, 2009.

Print and Print Equipment Industries Association of China, China Print Yearbook Press, *China Print Yearbook 2005*, Beijing: China Print Yearbook Press, 2005.

Print and Print Equipment Industries Association of China, China Print Yearbook Press, *China Print Yearbook 2006*, Beijing: China Print Yearbook Press, 2006.

Print and Print Equipment Industries Association of China, China Print Yearbook Press, *China Print Yearbook 2007*, Beijing: China Print Yearbook Press, 2007.

Ministry of Information Industry of People's Republic of China, *Annual Report of China Communication Statistics 2005*, Beijing: Posts & Telecom Press, 2006.

Ministry of Commerce of the People's Republic of China, *China Trade in Services Report 2006*, Beijing: China Commerce Press, 2006.

<sup>17</sup>These documents include:

Zhang Xiaoming, Hu Huijin, Zhang Jiangang, ed., *Report on Cultural Industry of China 2005*, Beijing: Social Science Academic Press, 2005.

Cui Baoguo, ed., *Report on Media Industry of China 2006*, Beijing: Social Science Academic Press, 2006.

Hao Zhensheng, ed., *Report on Press Industry of China 2006-2007*, Beijing: China Book Press, 2007.

Hao Zhensheng, ed., *Report on Press Industry of China 2007-2008*, Beijing: China Book Press, 2008.

Department of Book Publication Administration of the General Administration of Press and Publication of the People's Republic of China, *Report on China Book Publication Industry 2003-2004*, Beijing: China Renmin University Press, 2006.

Department of Book Publication Administration of the General Administration of Press and Publication of the People's Republic of

because of some problems such as the lack of authority and the statistical criteria, this study only does the comparative research instead of applying the statistics from these reports.

## 4.2 Questionnaires

According to the approach of WIPO's *Guide*, different statistical methods should be applied in the four copyright industrial clusters respectively when the economic contribution by copyright industries is being measured. The economic contribution of the core copyright industries should be included 100% but as for the other three categories, based on the reality of different nations and the judgment of researchers, the GDP they create, their employment figure and the importing and exporting amounts should be included proportionally. This would be according to the "copyright factor"<sup>18</sup> which is determined by the relationship between these industries and copThe questionnaires mainly aimed to acquire the copyright factor of the partial copyright industries. This study divides the partial copyright industries into several groups and collaborated with their industrial authorities or industrial associations. Then some representative companies were chosen to be surveyed, in such way that the relative data was collected to identify the copyright factor of the industries to which the companies belong.

## 4.3 Field Survey

The field researches were conducted in some representative companies which belong to the partial copyright industries. The researches, such as observing the production process on the spot and the in-depth interview with the people concerned, aimed to acquire more directly and more specifically the data that can be used in confirming copyright factor.

## 4.4 Quantitative Analysis

After the data from both questionnaires and fieldwork were collected, this study continued the quantitative analysis to establish the copyright factor preliminarily.

## 4.5 Comparative Study

In order to understand more accurately the economic contribution of Chinese copyright-based industries, this report makes a comparison between the industrial added values of Chinese copyright industries and other industries in China in 2004 and 2006. Meanwhile, the report also makes a comparison between the economic contribution of Chinese copyright industries and the similar researches in other nations.

---

China, *Report on China Book Publication Industry 2005-2006*, Beijing: China Renmin University Press, 2008.

Hao Zhensheng, ed., *Report on International Publishing Industry 2008*. Beijing: China Book Press, 2008.

Hao Zhensheng, ed., *Annual Report on China Digital Publishing Industry 2005-2006*. Beijing: China Book Press, 2007.

Hao Zhensheng, ed., *Annual Report on China Digital Publishing Industry 2007-2008*. Beijing: China Book Press, 2008.

Ye Lang, ed., *Report on China Culture Industry 2004*. Changsha: Hunan People's Publishing House, 2004.

Institute for Cultural Industries of Peking University, Cultural Industry Innovation & Development Academe, *Annual Report on China Cultural Industry 2005*, Changsha: Hunan People's Publishing House, 2005.

Institute for Cultural Industries of Peking University, Cultural Industry Innovation & Development Academe, *Annual Report on China Cultural Industry 2006*, Changsha: Hunan People's Publishing House, 2006.

Zhang Xiaoming, Hu Huilin, Zhang Jiangang, ed., *Report on Cultural Industry of China 2007*, Beijing: Social Science Academic Press, 2007.

Zhang Xiaoming, Hu Huilin, Zhang Jiangang, ed., *Report on Cultural Industry of China 2008*, Beijing: Social Science Academic Press, 2008.

He Zhenhu, Zhang Junchang, ed., *Bluebook of China Radio and Television Brands 2005*. Beijing: China Radio & Television Publishing House, 2006.

Cui Baoguo, ed., *Report on Media Industry of China 2004-2005*, Beijing: Social Science Academic Press, 2005.

Li Pin, ed., *Report on China Journal Industry No1: Market Analysis and Method Seeking*. Beijing: Social Science Academic Press, 2005.

<sup>18</sup> A percentage is used to refer to the part that can be attributed to copyright activities in a certain activity or industry. Sometimes it can be expressed as weighting. See also Research Guide of Economic Contribution of Copyright Industries, see the previous note, page 132.

## 5. Report

Since it is the first time that China conducts the research on copyright-based industries, this report gives an elaborate explanation of methodology before describing the economic contribution of Chinese copyright-based industries. This report includes the following sectors: the scope of Chinese copyright-based industries, the specific classification of Chinese copyright-based industries, the data collecting and calculation of Chinese copyright-based industries, the direct economic contribution of Chinese copyright-based industries, the international comparisons and conclusion.

# Chapter 1. Definition and Scope of Chinese Copyright-Based Industries

---

## 1.1 Definition of Chinese Copyright-Based Industries

### 1.1.1 Current definition

Many concepts with overlapping meanings have been used in the current study. Apart from the concept of copyright-based industry, cultural industry, creative industry, cultural creative industry and content industry are also used as synonyms but with different emphases.

#### 1.1.1.1 Definition of Copyright-Based Industries

The concept of copyright-based industry was first put forward by the United States. In 1990, the International Intellectual Property Alliance (IIPA) started the study of the economic contribution of copyright-based industry and released the report of Copyright-Based Industries in the US Economy. In this report, copyright industries were classified as the core copyright industries, the partial copyright industries, the copyright distribution industries and the copyright related industries. Many countries had adopted the concept of “copyright-based industries” in their studies but with different categories. In 2002, in a conference held in Helsinki by WIPO’s work group, the experts ultimately agreed on the definition and classification of copyright-based industries. Copyright-based industries refer to the activities or industries in which the copyright can play great roles, including the core copyright industries (news and literary work, music, opera, drama production, film and video, broadcast and TV, photography, software and database, visual art and painting, advertisement and copyright collective management organisations), the interdependent copyright industries (television, radio, video recorder, CD player, DVD player, tape recorder, electronic games consoles and other similarly used equipments, computer, instruments, camera, photo gear, copier, unrecorded media and paper), the partial copyright industries (garments, textiles, shoes, jewellery and coins; craft works; furniture; household goods, porcelains and glass; wallpaper and carpets; toys and games; architectures, projects and measures, house designs and museums) and the non-dedicated support industries (general distribution and retail for copyright-based products, general transportation, telephone and internet industry).<sup>19</sup> From 2004 the United States began to use the classification of WIPO, and later many other countries also adopted this classification in their studies, such as Canada, Austria, Russia, Ukraine, Singapore, the Philippines, the Netherlands, Hungary and so on.<sup>20</sup>

Before this study, Chinese professionals had only introduced the research results from other countries or discussed the concept of Chinese copyright-based industries. They had never conducted any survey or quantitative research on the economic contribution of copyright industries. In recent years, advocated by NCA, some national and provincial studies have started up. In terms of the definition of Chinese copyright-based industries, some scholars propose that “copyright-based industries refer to the productive and operative activities by individuals or industries related to the works having copyright and directly or indirectly controlled by copyright laws.”<sup>21</sup> WIPO’s *Guide* defined the copyright-based industries as “activities or industries where copyright plays an identifiable role”.<sup>22</sup> These two concepts both emphasise the role of “copyright” but they are not able to cover the scope established by WIPO’s *Guide*. For example, according to the above definition, the interdependent copyright industries are excluded because even though the major function of these industries is to serve copyright protected objects, the products themselves are not closely related to copyright or copyright laws. Therefore, this study intends to propose the definition of Chinese copyright-based industries in accordance with the definition of WIPO’s *Guide*.

---

<sup>19</sup>See also *Research Guide of Economic Contribution of Copyright Industries*, see the previous note, page 38.

<sup>20</sup>See Table 16.

<sup>21</sup>Li Mingde, “Copyright Industries and Knowledge Economy”, *Intellectual Property*, 2000 (1).

<sup>22</sup>See also *Research Guide of Economic Contribution of Copyright-based Industries*, see the previous note, page 132.

### 1.1.1.2 Definition of Creative Industries

The concept of creative industries was first proposed by the United Kingdom. In Creative Industries Mapping Document, UK, 1998, the “creative industries” concept has been set out as those enterprises getting the impetus from individual’s creativity, skills and talent, and those activities that can bring about potential fortune and job opportunities by exploiting intellectual properties. The definition made by the UK has been the basis of the classification of creative industries of many other countries. Almost all classifications have been related to 13 forms, such as advertisement, architecture, arts & antique, crafts, design, fashion design, software design, film & video, interactive leisure software, music, performance, publishing, TV & broadcast and so on.<sup>23</sup>

In China, the concept of creative industries has been frequently used and some cities have even issued a series of policies or plans to develop the creative industries. The Outline of the Eleventh Five-Year Plan for National Economic and Social Development of Beijing points out that the creative industry is also called creative economy. It is an industry creating fortune and job opportunities by making use of intellectual properties with personal creativity, skills and talent. The creative industries include advertisement, architecture, art and antique, comics, films, TV, music, performance, publishing, information service and so on.

The definition made in Shanghai’s Outline of the Eleventh Five-Year Plan for Creative Industries is the industries taking the creative ideas, skills and advanced technique, and other intellectual and knowledge-intensive factors as the core. Through a series of creative activities, they bring value-added to production and consumption, and generate fortune and job opportunities to the society. They mainly include research and development, culture and arts, consultancy and fashion consumption.

Apart from the different definitions made by different countries, even professionals and art groups may have their own understandings on creative industries. However, the various definitions basically agree that the creative industries are based on the creator and designer, emphasising the personal creativity of the creator and meanwhile concerning the policy plan of each country.

### 1.1.1.3 Definition of Cultural Industries

Cultural industry is a “historically comprehensive concept with changes, multi-dimensions, multi-levels and capacity”. According to the statistics, there are more than 500 definitions for culture.<sup>24</sup> At present, culture usually refers to the theories and studies of applicative cultural industries. It is the study of the production, distribution and communication of cultural industries.<sup>25</sup> The definition of cultural industries made by UNESCO is that cultural industries are a series of activities producing, re-producing and distributing the cultural products and services in accordance with industrial standards. The cultural industries include printing, publishing and multimedia, audio-visual, recording and film production, arts and design; in some countries the architecture, visual art and performances, sports, musical instruments production, advertisement and cultural tourism, media, cartoons, entertainment, games, tourism, education, internet and information service, music, opera and art museum are also included.

The definition and exploitations of Chinese cultural industries are also various. In April 2004, the National Bureau of Statistics of China issued the “Circular On Culture and Culture-Related Industrial Classification”<sup>26</sup> which defined the scope and classification of Chinese cultural industries in terms of statistics. This definition provides valuable reference both for defining and regulating Chinese cultural business and cultural industries as well as for copyright industries.

The *Circular* indicates that, in a broad sense, culture is the sum of all physical and intellectual products created by human beings; in a narrow sense, culture only refers to the intellectual products including language, literature, arts and other ideology. According to *Culture and Culture-Related Industrial Classification*, “Culture and culture-based industries” are the activities providing cultural and entertaining products or services for the general public, and the collection of activities relating to such activities.

<sup>23</sup>See Zhang Jingcheng, *Chinese Creative Industries Report 2007*, China Economy Press, p.23.

<sup>24</sup>Zhang Guoyou, “Cultural Industries Need Correct Developing Strategies”, *Annual Report for Chinese Cultural Industries*, ed. Institute of Cultural Industries of Peking University & State Cultural Industrial Innovation and Development Base (Changsha: Hunan People’s Publishing House, 2006) 6.

<sup>25</sup>See previous note.

<sup>26</sup>See *Culture and Culture-Related Industrial Classification*.



According to the above definition, the scope of cultural and culture-based industries includes the activities providing cultural products (e.g. books, video/audio products), cultural communication services (e.g. broadcast and TV, performances, museums) and cultural leisure (tourism, tourist service, indoor entertainment, sports and so on). These activities are the main body of cultural industries. Besides that, the cultural and culture-based industries also include the production and sale of the articles (e.g. stationary, instruments, toys, printing paper, writing paper, blank tape, cine film, photographic equipment, film, recreational machine) and equipments (e.g. equipments for interviewing and editing of news, professional video, film, printing, television, CD-ROM player, recorder and audio equipment) that directly relate to the cultural products, cultural communication services and cultural entertainment. These activities are supplements of cultural industries.

Cultural industries classification forms the core level of cultural industries, the surrounding level of the cultural industries and the culture-related industrial level. The core level of cultural industries includes news services, publishing and copyright services, broadcast, TV, film and arts; the surrounding level refers to web culture, cultural entertainment and other cultural services; the culture-related industrial level includes the production and sale of cultural products, equipment and culture-related products.

We can see from the above classification that the scope of core culture is similar to that of the core copyright industry; the relative culture service resembles inter-dependence copyright industries and it includes some parts of partial copyright industries as well.

#### 1.1.1.4 WIPO's Definition of the above Mentioned Notions

When discussing the above mentioned notion, WIPO's *Guide Book* points out "when mentioning activities and industries where copyright functions, the phrases *industry based on copyright*, *creative industry* and *culture industry* are used as synonyms. However we must be aware of the differences among them. *Culture industry* refers to those that use industrial scale to copy products of profound cultural connotation and the usage is always related with the production of mass media. *Creative industry* shall be understood in a broad way, for it includes all cultural and arts production besides culture industry, including live shows or productions produced by individuals. Traditionally, its usage is relative to live performance, cultural heritage and similar 'high art' activities".<sup>27</sup>

#### 1.1.2 Definition of Chinese Copyright-Based Industries

The description of WIPO and definitions by different countries show that the connotations of these concepts overlap each other and they share similar contents. However each of them enjoys a different focus and has its own functions. The copyright-based industry, as a legal concept, emphasises on promoting social awareness of the importance of copyright protection. Though different countries have diverse definitions of copyright-based industry, they share some common points as follows<sup>28</sup>:

- (1) All countries have defined copyright and related rights which entitle the copyright owner with the exclusive rights to authorise other people to use the protected works. These rights are normally regarded as economic rights. A copyright legal system is a prerequisite for the existence of copyright-based industries and also a basis to distinguish its concept from others'.
- (2) In the process of using copyrighted works, copyright shows its economic functions and its multiple influences on the economy. This economic influence is related to both the production and the publishing and consuming of works. The economic influence of copyright is comprehensive and multiple, related to all sectors of the creation: production, distribution and consumption.
- (3) It is difficult to assess the overall influence of copyright on the economy (including the economic influence of copyright itself, the evaluation of pirate behaviour, etc.), thus the existing researches and WIPO's *Guide Book* are limited to research into the economic contribution of copyright-based industry and provide quantitative analysis.

Consequently, "copyright-based industry" is not a new industrial sector, but only a collection of industries related to copyright in the national economy. The core of this industry is copyright. The purpose of such studies is to measure its influence on the economy.

<sup>27</sup>See Guide on Surveying the Economic Contribution of the Copyright-based Industries, the previous note, page 24.

<sup>28</sup>See the preface of *Guide to the Economic Contribution of Copyright-based Industry*, the previous note, p14.

Based on the above consensus and with reference to the definition and classification of copyright-based industry in WIPO's *Guide Book*, this research defines China's copyright-based industry as industries in which all, or a portion of, the activities are related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales.

## 1.2 Scope of Chinese Copyright Property

Since the copyright industries are industries in which all, or a portion of, the activities are related to copyright law, the scope of copyright industries should be based on copyright law. "Copyright is about rights and the protection of these rights constitutes the essential basis for building entire industries and their related activities."<sup>29</sup> Understanding the issue of the basic legal notions (works protected by copyright law and property held by copyright owner) in copyright protection will help to build better assumptions as to which economic activities should be studied and surveyed.<sup>30</sup> They are the starting points of copyright property classification and the border lines of copyright property scope as well. Only when an activity is related to copyright, can it be enlisted into the scope of copyright property, or else the economical contribution of such industries will be exaggerated. So long as an activity is related to copyright—, whether in part or in whole, it shall be enlisted into the scope of copyright property, otherwise the economical contribution of such industries will be low estimated. As a result, the determination of the scope of China's copyright property shall be started from the understanding of legal foundation of copyright property: China's copyright law.

### 1.2.1 Chinese Copyright Legal System

#### 1.2.1.1 An Overview of the Chinese Copyright Legal System

The new Chinese modern copyright system began in the late 1970s of the 20<sup>th</sup> century. Passed in 1986, The General Principles of the Civil Law of the People's Republic of China admits for the first time that copyright is enjoyed by every citizen and legal person. The *Copyright Law of the People's Republic of China* was issued in September 1990 and came into force the next year. The state council issued and implemented the *PRC Copyright Law Implementing Regulations* and *Regulations for the Protection of Computer Software* in succession in 1991. The 24<sup>th</sup> meeting of the Standing Committee of the Ninth National People Congress reviewed and approved the amendment to copyright property in October 2001, based on which the state council issued the new *Regulations for the Protection of Computer Software* in December 2001 and new *PRC Copyright Law Implementing Regulations* in August 2002. The state council also issued *Collective Management of Copyright Regulations* in December 2004 and *Protection Regulation on Internet Information Spreading Right* in May 2006.

When strengthening domestic legislation, China also positively develops the multi- and bi-lateral copyright cooperation. China has joined several important international copyright conventions such as *Berne Convention for the Protection of Literary and Artistic Works*, *the universal copyright convention*, *the International Convention for Protection of Audio Recordings against Unauthorized Duplication* and *the Agreement on Trade-related Aspects of Intellectual Property Rights*.

Through 30 years of efforts, China has established a modern copyright legal system suited to the Chinese actual conditions and to international rules, which takes copyright law as the core and the related regulations and international conventions as a compliment. This has laid foundations for the development of Chinese copyright-based industries.

<sup>29</sup>Refer to the preface of *Guide to the Economic Contribution of Copyright-based Industry*, the previous note, p14.

<sup>30</sup>Jennifer Skilbeck, *The Economic Importance of Copyright*, international publisher union, 1988. Quote from the preface of *Guide to the Economic Contribution of Copyright-based Industry*, p 14.



### 1.2.1.2 Works protected by Chinese copyright law

Based on the above mentioned laws and regulations, the works protected by copyright law in China includes:

- (1) "Written works" which means works expressed in written form, such as fictions, poems, prose and theses;
- (2) "Oral works" which means works expressed in form of spoken language, such as impromptu speeches, lectures and court debates;
- (3) Musical works, quyi works, choreographic works and acrobatics works. "Musical works" means such works as songs and symphonic works, with or without accompanying words, which can be sung or performed; "dramatic works" means such works as dramas, operas and local traditional operas for stage performance; "quyi works" means such works as "xiangsheng" (cross talk), "kuai shu" (clapper talk), "dagu" (ballad singing with drum accompaniment) and "pingshu" (story telling based on novels) which are mainly performed by recitation or singing, or by both; "choreographic works" means works in which ideas and feelings are or can be expressed through successive body movements, gestures, facial movements, etc.; "acrobatic works" means works expressed through body movements and skills, such as acrobatics, magic and circus;
- (4) Works of fine arts and architecture. "Works of fine arts" means two- or three-dimensional works of the plastic arts created in lines, colors or other media which impart aesthetic effect, such as paintings, works of calligraphy and sculptures; "works of architecture" means works with aesthetic effect which are expressed in form of buildings or structures;
- (5) "Photographic works" which means artistic works created by recording images of objects on light-sensitive or other materials with the aid of devices;
- (6) "Cinematographic works and works created by a process analogous to cinematography" which means works filmed on a certain medium and consisting of a series of frames, with or without accompanying sound, which are projected or otherwise communicated by means of appropriate equipment;
- (7) "Graphic works" which means drawings of engineering designs and drawings of product designs that are made for construction work or engineering purposes as well as maps, schematic drawings, etc., that reflect geographical phenomena or illustrate the principles or structures of things; "model works" means three-dimensional works made to a certain scale on the basis of the shape and structure of objects, for purposes of display, testing or observation, etc.
- (8) Computer software;
- (9) Other works as provided for in laws and administrative rules and regulations.

### 1.2.1.3 Copyright owners' exclusive rights vested by Chinese copyright law

Intellectual property is a kind of property that takes rights as its object<sup>31</sup> and all the rights under the intellectual property provide the right owners with a legal framework for transaction. In accordance with Chinese laws and regulations, the rights enjoyed by copyright owners over the above mentioned works includes:

- (1) right of reproduction, that is the right to make one or more copies of a work by means like printing, photocopying, copying by hand, rubbing, audio-recording, video-recording, re-recording or photographing;
- (2) right of distribution, that is the right to make available to the public the original or reproductions of a work though sale or other transfer of ownership;
- (3) right of rental, that is the right to authorise, with payment, others to temporarily use cinematographic works, works created by virtue of an analogous method of film production and computer software, except any computer software that is not the main subject matter of rental;
- (4) right of exhibition, that is the right to publicly display the original or reproduction of a work of fine art and photography;
- (5) public performance, that is the right to publicly perform a work and publicly broadcast the performance of a work by various means;
- (6) right of showing, that is the right to show to the public a work of fine art, photography, cinematography and any work created by analogous methods of film production through film projectors, overhead projectors or any other technical devices;

<sup>31</sup>Zhen Chengsi, *On Intellectual Property Law*, Law Press. October, 2003. P 64.

- (7) broadcasting, that is the right to publicly broadcast or communicate to the public a work by wireless means, to communicate to the public a broadcast work by wire or relay means and to communicate to the public a broadcast work by a loudspeaker or by any other analogous tool used to transmit symbols, sounds or pictures;
- (8) right of communication of information on networks, that is the right to communicate to the public a work, by wire or wireless means in such a way that members of the public may access these works from a place and at a time individually chosen by them;
- (9) right of making cinematographic works, that is the right to fixate a work on a carrier by way of film production or by virtue of an analogous method of film production;
- (10) right of adaptation, that is the right to change a work to create a new original work;
- (11) right of translation, that is the right to translate a work in one language into one in another language;
- (12) right of compilation, that is the right to compile works or parts of works into a new work by reason of selection or arrangement;
- (13) any other rights a copyright owner is entitled to enjoy.

A copyright owner may authorise another person to exercise the above mentioned rights and receive remuneration. A copyright owner may assign, in part or in whole, the above mentioned rights and receive remuneration. The term of protection for the right of a work shall be the lifetime of the author and fifty years after his or her death.

Besides, China's copyright law has also stipulated the neighbouring rights: publisher rights, performer rights, sound or visual recording producer's rights, broadcaster's rights and their protection term.

### 1.2.2 Copyright Market within the Chinese Legal Framework

The above mentioned rights arising from works have provided economical transactions with legal frameworks. In daily life "the economic characteristics have been manifested throughout the process from the beginning of work creation to its using and transmission". The copyright law directly protects the authors' economic interest, on which most of them live; as for the users of the works, their primary purpose is to gain economic interest, whether by reproducing or transmitting the works. A large number of people in society, from book publishers to newspaper-magazine offices, from movie producers to audio-visual products makers, from broadcasting television stations to satellite broadcasting industries, as well as book retailers, newspaper retailers, magazine retailers and audio-visual products retailers, all rely on the transactions of copyright works.<sup>32</sup>

Through the above activities, copyright performs economic functions. Usually an economic transaction involves many rights, with values determined by different market factors. The rights may operate differently in the different markets. The following indicative table may help in positioning the rights and their scope with respect to the markets of products in which they operate.<sup>33</sup>

<sup>32</sup>Li Minde, *Copyright-based Industry and Knowledge Economy, Intellectual Property*. 2000.

<sup>33</sup> Refer to the preface of *Guide to the Economic Contribution of Copyright-based Industry*, p 22.

**Table 1: Market Scope of Copyright-Based Industries within the Chinese Copyright Legal System**

Types of works	Right	Scope of the Market
Written works; oral works; musical, quyi, choreographic and acrobatics works; works of fine arts and architecture; photographic works; cinematographic works and works created by a process analogous to cinematography; graphic works; model works and computer software	Right of reproduction	Reproduction of works in a material or non-material form. It might also cover the adaptation of works.
	Right of distribution	Dissemination of physical copies, resale, sale and rental, and even lending of copies of such categories of works as musical works, included in phonograms, audiovisual works, computer programs. It might also cover the importation on copies.
	Right of communication to the public	Relaying of works by any distant communication or interactive communication means. It might embrace a broad field of activities including the relaying of a performance to members of the public outside the place where the performance is made, the transmission by cable and the making available of works in digital networks.
	Right of public performance	Live performances of works in the presence of the public (including by means of recordings and phonograms).
	Right of broadcasting	Transmission of works through wireless and non-interactive means intended for public reception. It embraces also satellite transmissions intended for public reception.

We can see from the above table that copyright has a great influence on the economy which concerns not only the production of the works but the distribution and consumption as well. The law provides protection for each phase from the creation or production to the distribution of the works, and all of these activities have direct influence on the economy, though the influence may vary from one another. Consequently, the following elements shall be taken into consideration when determining the copyright-based industry scope and classifying its categories so as to fully and accurately estimate the economic contribution of the copyright-based industry, avoiding either over or low estimating.

Firstly, a study the activities resulting from the multiple effects of copyright on the economy – those of the creators, the right-holders, the distributors, users, equipment manufacturers, advertisers, etc. In view of maximizing the comprehensiveness of the study one should try to incorporate all relevant economic values related to works and other protected subject matter which can be economically justified.

Secondly, classify the industries to be researched into reasonable categories according to the dependence degree of the industry activities on copyright so as to estimate their economic contribution as per different ratios. The existing researches have provided several different classifying methods.<sup>34</sup> After repeated discussion and practice, the WIPO experts highly suggest core copyright industries, interdependent copyright industries, partial copyright industries and non-dedicated support industries for primary classification.

This research has adopted the methods provided in WIPO's *Guide*, which is to divide Chinese copyright industries as the core copyright industries, the interdependent copyright industries, the partial copyright industries and the non-dedicated copyright industries. Since the core copyright industries rely on copyright more than the other three categories and they are quite different from the other three, this report calls the other three categories "non-core copyright industries" for convenience.

<sup>34</sup> Refer to the preface of *Guide to the Economic Contribution of Copyright-based Industry*, p 37.

## Chapter 2. Specific Classifications of Chinese Copyright-Based Industries

---

### 2.1 Classification Method

After the categorisation in accordance with WIPO's methods, the four categories should be subdivided for calculation.

All the data in this study is based on national statistics which are not only the direct body for the calculation of economic contribution of Chinese copyright industries but also the main basis for indirect calculation or estimation. As has been pointed out in WIPO's *Guide*, the official statistical data is the foundation for researches of national grade, for this data is released regularly and enjoys high reliability which contributes to the international comparison.<sup>35</sup>

The specific classification of the industry and the data collection process are closely linked with the data acquisition. Therefore the copyright-based industry must be subdivided according to different national classification systems for various kinds of statistics. For the aims of this research, the copyright-based industry shall be classified into the following two types:

#### 2.1.1 *Copyright-Based Industry Classification Corresponding to National Economic Industrial Classification*

The increasing value of metrology industry and the employment number are mainly based on the statistics issued by the State Statistical Bureau. As a result, the classification of copyright-based industry on the basis of copyright law in Table 2 shall correspond with the industry classification of the State Statistical Bureau so as to gain the relative data for statistical calculation.

This report is based on the National Standard (GB/T4754—2002) which was issued by the State Statistical Bureau in the year of 2002 and was adopted during the economic census in 2004. According to the classification standard, the Chinese national economy shall be classified into 19 sections, 94 divisions, 395 groups and 912 classes. Refer to the scope of copyright-based industry in Table 2 for the description of industry classes in this report. Of the 912 classes of industries, 225 have been enlisted into the scope of copyright-based industry research (industry classes that appear repeatedly in different categories shall be counted by the respective ratio).

In order to increase the international comparability of the result in this research, the researchers have also checked the above industry classes one by one based on the national industry classification codes corresponding with the United States Industry Classification (ISIC) codes<sup>36</sup> provided in WIPO's *Guide*.

#### 2.1.2 *Copyright-Based Industries Classification Corresponding to Commodity Classification for Customs*

Considering that there is no export data of the industrial subcategories issued by the State Statistical Bureau, the Customs statistics shall be adopted when measuring the total commodity trade exports of the copyright industries. Based on the scope of copyright-based industry in Table 2, this study has selected 220 types of four-digit code commodities from the *List of Statistical Commodities for Customs of People's Republic of China* to calculate the export of copyright-based industries.

#### 2.1.3 *Copyright-Based Industries Classification Corresponding to International Balance of Payment Classification*

Considering that there is no official service trade exports data of the industrial subcategories issued by the State Statistical Bureau, the international balance of payment of the State Administration of Foreign Exchange should be used to measure the service trade exports of copyright-based industries. Based on the scope of

---

<sup>35</sup>Refer to the preface of *Guide to the Economic Contribution of Copyright-based Industry*, p 67.

<sup>36</sup>Refer to the preface of *Guide to the Economic Contribution of Copyright-based Industry*, p 113.

copyright-based industries in Table 2, this study selected 4 categories from the Handbook of International Balance of Payment to measure the service trade exports of copyright-based industries.

## 2.2 The Specific Classification of Core Copyright Industries

### 2.2.1 The Definition and Categorisation of Core Copyright Industries

The core copyright industries are industries which are wholly engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales of works and other protected subject matters. It is suggested in WIPO's *Guide* that the final products list which mostly rely on the protection of copyright shall be first considered when choosing the industries that best suit the definition of core copyright industries. Based on different researches and methods, WIPO proposes to adopt nine groups of core industries into the research, namely press and literature works; musical, theatrical production and opera works; motion picture industry; radio and television; photography; computer software and databases; visual graphic arts; advertising services and copyright collective management association.

Based on the classification of works in China's copyright law, this research adjusts the WIPO classification of industries as follows: firstly, change the "press and literature works" into "written works"; secondly, change the "musical, theatrical production and opera works" into "musical works, quyi works, choreographic works and acrobatics works"; thirdly, change the "visual graphic arts" into "works of fine arts and architecture, graphic works and model works".

### 2.2.2 Classification of Core Copyright Industries

According to the definition in WIPO's *Guide*, the following principles should be followed with care when subdividing the core copyright industries.

- (1) The core copyright industries encompass not only the production (creation, making and manufacture) but the intangible communication (performance, broadcast, communicating and exhibition) and tangible communication (distribution, sale and service) as well.
- (2) All activities of the core copyright industries shall be related to the works or other objects protected by the copyright.
- (3) Since the core copyright industries would be greatly different or even would not exist without the works or other objects protected by the copyright, the economic contribution of the core copyright industries shall figure as per to the ratio of 100%.
- (4) In the distribution industries, only those industry shares that are totally engaged in the distribution of copyright materials shall be taken into account by the core copyright industries.

According to these principles, WIPO has proposed instructive subdivision of the above mentioned 9 groups as follows<sup>37</sup>:

Press and literature works include: (1) writer, author and translator; (2) newspaper; (3) news agencies (4) magazines; (5) book publishing; (6) greeting cards and maps; (7) directory and other press work; (8) pre-and after press proof of books, magazines and advertising materials; (9) wholesale and retail of newspaper and literature works; (10) libraries.

Musical, theatrical production and opera works include: (1) composers, song writers, adapters, choreographers, directors, performers and other staff members; (2) printing and publishing of musical works; (3) production and manufacturing of music phonograms; (4) wholesale and retail of music phonograms; (5) arts, word creation and narration; (6) performance and relative organisations.

Motion picture industry includes: (1) play writers, directors and performers; (2) production and issue of films and videos; (3) film projection; (4) lease and sale of videotapes, including order program; (5) relative service.

Radio and television include: (1) national radio and television broadcasting companies; (2) other radio and television organisations; (3) independent producers; (4) cable TV; (5) satellite TV; (6) relative service.

<sup>37</sup>Refer to the *Guide to the Economic Contribution of Copyright-based Industry*, the previous note, p41.



Photography includes: (1) studio and commercial photography; (2) photo agencies and libraries.

Computer software and databases include: (1) planning, programming and designing; (2) production, wholesale and retail of pre-installed software (commercial program, video games, education program, etc.); (3) database processing and publishing.

Visual graphic arts include: (1) artists; (2) galleries and other wholesalers, retailers; (3) frame and other relative service; (4) graphic design.

Advertising services include advertisements agencies and purchasing service (excluding advertisements publishing cost).

Copyright collective management & services include copyright collective management association (excluding sales volume).

In accordance with the above classification, this study proposes the classification of Chinese core copyright industries corresponding to the National Economic Industrial Classification, including 72 industrial subcategories (classes that appear repeatedly in different categories shall be counted by their respective ratio). See Appendix 1 (Table 20) for detailed information. Similarly it has sorted out the structure of China core copyright industry classification corresponding to commodity classification for customs, including 18 types of four figure code commodities. See Appendix 1 (Table 21). Besides that, four categories in international balance of payment system that are the computer and information service (software and database), exclusive right fees (copyright), advertisement and publicity, film and audio/visual form the service trade of core copyright industries.

## 2.3 The Specific Classification of Interdependent Copyright Industries

### 2.3.1 Definition of Interdependent Copyright Industries

Interdependent copyright industries are industries engaged in the production, manufacture and sale of equipment whose main function is to facilitate the creation, production or use of works and other protected subject matters.

Based on their supporting degree to the core copyright industries, the interdependent copyright industries can be further divided into core interdependent copyright industries and partial interdependent copyright industries.

### 2.3.2 Classification of Interdependent Copyright Industries

The core interdependent copyright industries encompass the production, wholesale and retail (sale and rent) of the following equipment: TV sets, radios, VCRs, CD players, DVD players, tape readers, electronic game equipment and other similar equipment, computer and relative equipment, and musical instruments. This group of products is normally consumed together with the products of core copyright industries. For example, television programs could not be communicated without TV sets. These products are consequently called "hardware of copyright".

The partial interdependent copyright industries encompass the production, wholesale and retail (sale and rent) of the following equipment: photographic and cinematographic instruments, photocopiers, blank recording material and paper. Their main functions are also to promote the use of the copyright.

This type of industries varies from the core copyright industries in that the former come under the copyright-based industry due to the application of the products, not because the products themselves enjoy copyright.

In accordance with the subdivision of interdependent copyright industries, there are 52 industry classes corresponding to the industrial classification for national economic activities (classes that appear repeatedly in different categories shall be counted by their respective ratio). See Appendix 1 (Table 22). Similarly there are 58 industry classes corresponding to commodity classification for customs. See Appendix 1 (Table 23).

## 2.4 The Specific Classification of Partial Copyright Industries

### 2.4.1 Definition of Partial Copyright Industries

Partial copyright industries are industries in which a portion of their activities is related to works and other protected subject matters and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales.

### 2.4.2 Classification of Partial Copyright Industries

According to the classification in WIPO's *Guide Book*, the main products and 10 groups of industries involved in this category are apparel, textiles and footwear; jewellery and coins; other crafts; furniture; household goods, chinaware and glass; wall coverings and carpets; toys and games; architecture, engineering and surveying; interior design and museums.

There are 94 industry classes in partial copyright industries corresponding to the industrial classification for national economic activities (classes that appear repeatedly in different categories shall be counted by their respective ratio). See Appendix 1 (Table 24). There are 170 industry classes corresponding to commodity classification for customs. See Appendix 1 (Table 25).

## 2.5 The Specific Classification of Non-Dedicated Industries

### 2.5.1 Definition of Non-Dedicated Support Industries

Non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries. These industries calculate the spillover effect that is away from the core copyright industries and their functions are shared by both copyright-based industries and other industries.

### 2.5.2 Classification of Non-Dedicated Support Industries

These industries including general wholesale and retail industry, general transportation industry, telephone and Internet industry distribute copyright works.

There are 42 industry classes in non-dedicated support industries corresponding to the industrial classification for national economic activities. See the attachment 1 (Table 26) for detailed information.

**Table 2: Classification of Copyright-Based Industry<sup>38</sup>**

Classification	Definition	Specific Categories
Core copyright industries	The core copyright industries are industries which are wholly engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales of works and other protected subject matters.	press and literature; motion picture industry; musical productions (including theatrical and operas); radio and television; photography; computer software and databases; visual graphic arts; advertising services and copyright collective management and services
Interdependence copyright industries	Interdependent copyright industries are industries engaged in the production, manufacture and sale of equipment whose main function is to facilitate the creation, production or use of works and other protected subject matters.	TV sets, radios, VCRs, CD players, DVD players, tape readers, electronic game equipment and other similar equipment; computer and relative equipment; musical instruments; photographic and cinematographic instruments; photocopiers; blank recording material and paper

<sup>38</sup>Refer to the Chapter 4 of the *Guide to the Economic Contribution of Copyright-based Industry*, the previous note, p37.



**Table 2: Classification of Copyright (continued)**

Partial copyright industries	Partial copyright industries are industries in which a portion of the activities is related to works and other protected subject matters.	apparel, textiles and footwear; jewellery and coins; other crafts; furniture; household goods, chinaware and glass; wall coverings and carpets; toys and games; architecture, engineering and surveying; interior design; and museums
Non-dedicated support industries	Non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries.	general wholesale and retail industry, general transportation industry and telephone and Internet industry that distribute copyright works

## Chapter 3. Data Collection and Calculation of the Economic Contribution of Chinese Copyright-Based Industries

---

The data collection and calculation of the economic contribution of Chinese copyright industries include two parts: the collection and calculation of basic data and the selection of copyright factors. According to WIPO's *Guide*, core copyright industries and non-core copyright industries are quite different in statistics. In core copyright industries, 100% are considered to be copyright factors; while in non-core copyright industries, the GDP they create, employment figure and the copyright share of import and export volume are all determined by to what extent the industries depend on copyright, that is the copyright factors should be strictly separated from the other factors. There is little data research on copyright factors in China, so the standard can only be established by doing research and analysis on Chinese copyright industries as well as comparing with and drawing conclusions from the research results in other countries.

### 3.1 Basic Data

Basic data includes the value-added of copyright industries, the number of employees, export values and other indirect data used for calculating the above statistics when it is impossible to collect them.

#### 3.1.1 Source of the Data

As stated above, official data is the basis of such nation level research. So most of the data used in this research are from official sources. The major sources are as follows:

- (1) *China Economic Census Yearbook 2004* published by China Statistical Publishing House, compiled by the Office of the Leading Group for Chinese First Economic Census of the State Council.
- (2) *China Statistics Yearbook* and other statistics yearbooks in each year published by China Statistical Publishing House, compiled by the PRC Bureau of Statistics.
- (3) Relevant industrial statistics for 2004 and 2006 provided by governing bodies such as the Ministry of Industry and Information Technology, the Ministry of Culture, the State Administration of Radio, Film and Television and the General Administration of Press and Publication.
- (4) The statistics of 2004 economic census acquired from the Economic Census Center in the State Bureau of Statistics.
- (5) The 8-digit-level statistics of 2004 and 2006 import and export goods acquired from Customs Head Office.
- (6) Statistics of 2004 and 2006 service trade acquired from the State Administration of Foreign Exchange.

#### 3.1.2 Calculation Methods

##### 3.1.2.1 The calculation of industrial value-added

The calculation of industrial value-added is mainly based on the subcategories of copyright industries with current prices.

For those industries for which the statistics of value-added can be provided by the Census Bureau or governing bodies, the data provided by those departments are used as industrial value-added in this study.

For those industries for which the statistics of value-added cannot be provided by the Census Bureau or governing bodies, we first calculated the industrial value-added of these industries in 2004 based on the related industrial statistics gathered from the Economic Census 2004. We then estimated the industrial value-added for 2006 of these industries based on both the proportion of industrial value-added in those of the second or the third industry and the industrial value-added of the second and the third industry in 2006.

The industrial value-added for 2004 was calculated in accordance with the formula provided by WIPO's *Guide*:

industrial value-added = employees' income + production tax + depreciation of this year + operation surplus – production or operating subsidies

In the formula, the components are estimated by two steps: first, to calculate the corresponding data of each type of corporate units; second, to add the data of all corporate units in an industry. The statistics of employees' income, production tax, depreciation of this year, operating surplus, production and operating subsidies were calculated in accordance with the calculating methods provided in *Calculating Methods of Annual GDP of Chinese Economic Census*<sup>39</sup> edited by the Auditing Department of State Bureau of Statistics.

**Table 3: Calculation Formulas of Industrial Value-Added Components<sup>40</sup>**

Components	Types of corporate units	Calculating formula
the employees' income	industrial enterprises above designated size	labour insurance and unemployment insurance + endowment insurance and Medicare + house fund and housing allowance + payroll in this year + welfare fund in this year + travel expense×64% + union dues×60% + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	industrial enterprises below designated size, wholesale and retail enterprises below designated size	workers' income + labour insurance and unemployment insurance + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	wholesale and retail enterprises above designated size	labour insurance and unemployment insurance + house fund and housing allowance + payroll in this year + welfare fund in this year + travel expense×64% + union dues×60% + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	enterprises in the service sector	workers' income + labour insurance and unemployment insurance + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	public institution	personnel's income + welfare fund + labour service charge + heating fees + travel expense×64% + subsidiary expenses for families and individuals – assistantship – pension and living subsidies

<sup>39</sup>Auditing Department of State Bureau of Statistics. *Calculating Methods of Annual GDP of Chinese Economic Census*. Beijing: China Statistics Press, 1<sup>st</sup> edition in Feb. 2007.

<sup>40</sup>Auditing Department of State Bureau of Statistics. *Calculating Methods of Annual GDP of Chinese Economic Census*. Beijing: China Statistics Press, 1<sup>st</sup> edition in Feb. 2007.

**Table 3: Calculation Formulas of Industrial Value-Added Componen (continued)**

production taxes	industrial enterprises above designated size	primary business taxes and additional charges + taxes management expenses + VAT in this year + charges for disposing pollutants + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	industrial enterprises below designated size	sales taxes and additional charges + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	wholesale and retail enterprises above designated size	primary business taxes and additional charges + taxes management expenses + VAT in this year + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	wholesale and retail enterprises below designated size	primary business taxes and additional charges + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	enterprises in the service sector	primary business taxes and additional charges + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	public institution	operation taxes
depreciation of fixed assets	industrial enterprises above designated size, industrial enterprises below designated size, transportation and telecommunication enterprises, wholesale and retail enterprises above designated size, wholesale and retail enterprises below designated size, enterprises in the service sector	depreciation in this year
	public institution	fix assets original price×4%
operating surplus	industrial enterprises above designated size	operating profit×[primary business revenue/(primary business revenue + other business revenue)] + union dues×40% + subsidized income + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	industrial enterprises below designated size	operating profit + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	wholesale and retail enterprises above designated size	operating profit×(primary business revenue/total operating revenue) + union dues×40% + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	wholesale and retail enterprises below designated size	operating profit×(primary business revenue/total operating revenue) + part of the 3 types of expenses (1. operating expenses, 2. management expenses, 3. financial expenses)
	public institution	balance of revenue and expenses×[(operating revenue + undertaking revenue)/total revenue in this year]
production and operating subsidies	industrial enterprises above designated size	subsidised income

### 3.1.2.2 Calculation of employees

The calculation of the number of employees should also be based on industrial subcategories.

For those industries of which the number of employees can be provided by the Census Bureau or governing bodies, the data provided by those departments was used.

For those industries of which the number of employees cannot be provided by the Census Bureau or governing bodies, first we estimated the number of employees in 2004 by using the average annual employment data from the Economic Census 2004 of each type of corporate units in related industries and then we estimated the number of employees in 2006 by using the number of employees of all industries in 2006 and the proportion of employees in these industries in corresponding industries in 2004.

### 3.1.2.3 Calculation of total export value

Exports are presented with commodity exports of customs. The commodity exports of customs for copyright-related industries are calculated with customs commodity export statistics in 2004 and 2006 provided by the General Administration of Customs.

The calculation of service trade export value used the service trade statistics in 2004 and 2006 provided by the State Administration for Foreign Exchange based on corresponding categories. Due to the limitation of classification, the calculation of service trade export value only focused on the core copyright industries.

### 3.1.2.4 Separation

Although the subcategories and customs import/export products list have been the minimal level for effective calculation, it is still too comprehensive for some copyright industries. For example, in national economic industrial classification, photography and processing are classified as one subcategory but only photography is considered as a component of copyright industries. What's more, in the category of service trade, there is only the item of exclusive right use and licensing fee covering copyright without subdivision of copyright.

For avoiding including non-copyright industrial departments into the calculation of the economic contribution of copyright industries, we have separated the data to a certain proportion and have only selected the copyright-related data as the basis of the calculation.

## 3.2 Copyright Factor

As stated above, in the core copyright industries WIPO identifies the copyright factor as 100 percent but it differs from the other three types of copyright-based industries: interdependent copyright industries, partial copyright industries and non-dedicated support industries. In these three copyright industries, the copyright factor is determined on the basis of the practical situation in various countries to research.

This study concentrates on the copyright factor primarily by sample survey (questionnaire survey<sup>41</sup> and special interviews), international comparison<sup>42</sup> and quantitative calculation, etc. WIPO experts provide a very detailed copyright factor of other countries and related formulas, and the researchers use these as a reference, combining them with the investigation to measure the copyright factor of Chinese copyright-based industry.

### 3.2.1 Interdependent Copyright Industries

For determining the copyright factor of interdependent copyright industries, there are two distinct approaches in the world. Some countries have directly identified the copyright factor of interdependent copyright industries as 100%, such as the United States, the United Kingdom, Latvia, Hungary, Mexico, Jamaica, Bulgaria, Lebanon, Colombia and Croatia; the other countries are based on the investigation to determine the different copyright factor in different industries, such as Singapore, the Philippines, Malaysia, Romania, Russia and other countries. In the second group, the copyright factor values are between 20% and 40%.

The study is based on WIPO's classification of the interdependent copyright industries, combining the two methods, namely the value of the copyright factor in the core interdependent copyright industries which is of 100% and copyright factors for the partial interdependent copyright industries which are determined by the degree of their products correlation. The specific values are shown in Table 4.1.

<sup>41</sup> See appendix.

<sup>42</sup> See *The Economic Contribution of Copyright-based Industries Research Guide*, supra note, page 86.

### 3.2.2 *Partial Copyright Industries*

The copyright factor for the partial copyright industries is primarily obtained by field survey and questionnaire. The working group conducted field surveys in tens of enterprises and distributed 1100 copies of questionnaires to other enterprises and public institutions in partial copyright industries.

From the interviews and the questionnaire we know the majority of enterprises have a great haphazard method to estimate the profits of copyright activities or explain it is an awkward question. The main reason may have the following two points: firstly, the current copyright industries practitioners in China have relatively low awareness of copyright, so that copyright activities cannot be identified from the industrial activities; secondly, the proportion of the profits which is brought by copyright activities is indeed difficult to estimate. In some countries the question in the questionnaire is "What's the proportion of total profits that the creative activity brings to the company?" Respondents may find easy to answer, but for researchers, how to split the profits from the copyright activities is still a question.

This study combines field interviews and survey, uses these conclusions to do quantitative analysis for the partial copyright industries and refers to other countries' achievement of investigation and research to derive the copyright factor for the partial copyright industries, specific values are shown in Table 4.2. For the detailed investigations of various industries see appendix to this report.

### 3.2.3 *Non-Dedicated Support Industries*

Copyright factors of non-dedicated support industries are determined by WIPO's formula. The copyright factors formula for calculating value-added is:

copyright factors of non-dedicated support industries = (value-added of core copyright industries + value-added of interdependent copyright industries + value-added of partial copyright industries) ÷ non-tradable GDP

non-tradable GDP = GDP – value-added of transportation, wholesale and retail, information and communication industries + value-added of tradable industries (e.g. the wholesale and retail of press and literary work, musical sound recordings, packaged software, television, recorders, textiles, apparel, shoes and leather goods) in core industries, interdependent industries and partial copyright industries

The copyright factors formula for calculating the number of employees is:

copyright factors of non-dedicated support industries = (the number of employees in core copyright industries + the number of employees in interdependent copyright industries + the number of employees in partial copyright industries) ÷ non-tradable number of employees

non-tradable number of employees = total national employees – the number of employees in transportation, wholesale and retail, information and communication industries + the number of employees in tradable industries of core copyright industries, interdependent copyright industries and partial copyright industries



The calculating results are in Table 4.3.

**Table 4: Copyright Factor of Chinese Copyright Industries**

**Table 4.1: Interdependent Copyright Industries**

Main industries groups	Copyright factor
TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment and other similar equipment	100%
Computers and equipment	100%
Musical instruments	100%
Photographic and cinematographic instruments	35%
Photocopier	30%
Blank recording material	25%
Paper	25%

**Table 4.2: Partial Copyright Industries**

Main industries groups	Copyright factor
Apparel, textile and footwear	0.4%
Jewellery and coin	8%
Other handicraft	40%
Furniture	5%
Household goods, china and glass	0.3%
Wall coverings and carpets	2%
Toys and computer games	40%
Architecture, engineering, surveying	6%
Interior decoration	5%
Museums	0.5%

**Table 4.3: Non-Dedicated Support Industries**

Main industries groups	2004		2006	
	GDP	Quantity of employment	GDP	Quantity of employment
Non-Dedicated Support Industries	4.94%	5.55%	6.37%	6.51%

## Chapter 4. The Economic Contribution of Chinese Copyright-Based Industries

### 4.1 Summary

#### 4.1.1 *The Economic Contribution of Chinese Copyright-Based Industries in 2004*

**Table 5: The Economic Contribution of Chinese Copyright-Based Industries in 2004**

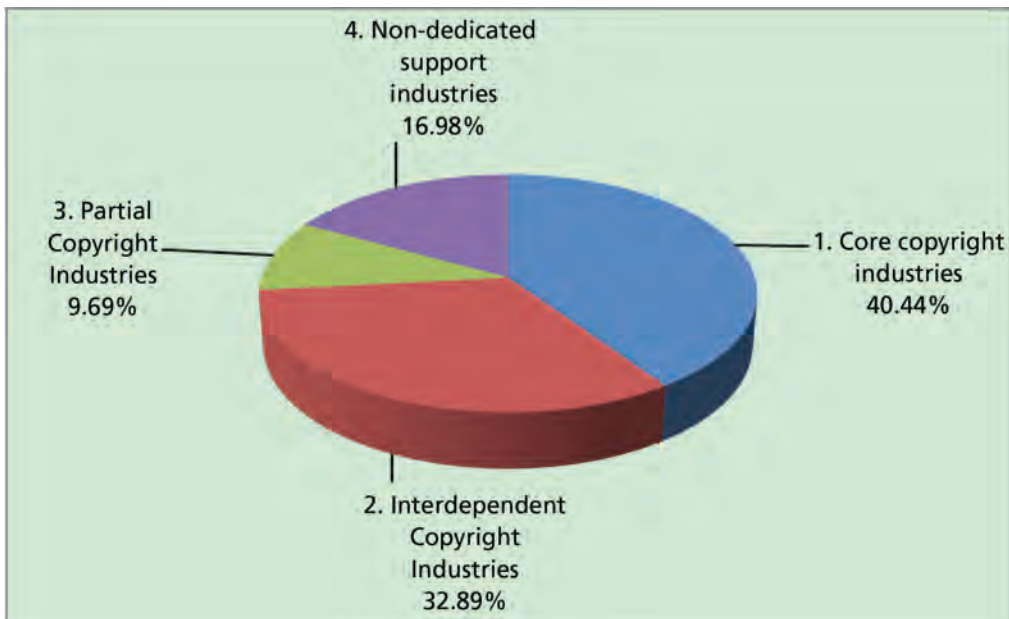
Indicators Category		Industrial Value-Added		Employment		Total Value of Export Goods	
		Value (in billion RMB)	Ratio (%)	Number (in thousands)	Ratio (%)	Value (in billion USD)	Ratio (%)
<b>Core copyright industries</b>		318.87	2.00	3009	2.71	1.56	0.26
<b>Non-core copyright industries</b>	<b>Interdependent copyright industries</b>	259.30	1.62	1617	1.46	83.80	14.12
	<b>Partial copyright industries</b>	76.38	0.48	866	0.78	6.83	1.15
	<b>non-dedicated support industries</b>	133.86	0.84	668	0.60	–	–
	<b>Total</b>	469.55	2.94	3150	2.84	90.63	15.28
<b>Total</b>		788.42	4.94	6159	5.55	92.19	15.54

Note: The above ratio is in proportion to the national GDP, national employment and total value of all export goods, respectively.

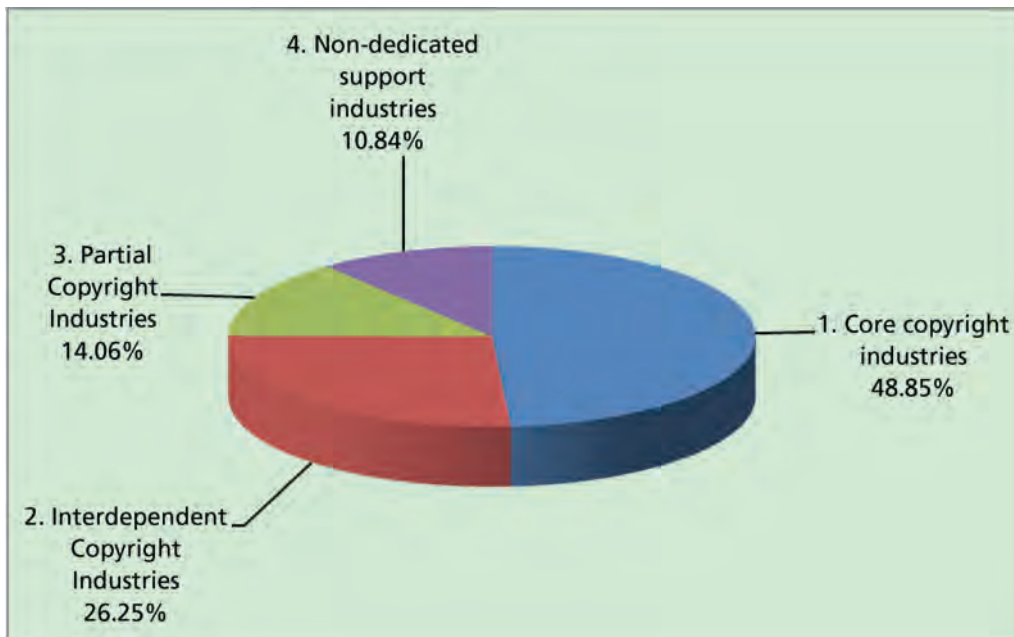
The value-added of Chinese copyright industries in 2004 was 788.4 billion RMB, which takes up roughly 4.9% of national GDP (15,987.83 billion RMB). The employment is 6.16 million which accounts for 5.6% of national employment (1,109,890,000). Total value of export of merchandise is 92.2 billion USD which is 15.5% of the total value of all export (593.32 billion USD).

Copyright-based industry can be separated into two parts: the core copyright industries and the non-core copyright industries. The economic contribution of core copyright industries can be found in the second part of this chapter. The non-core copyright industries is composed of interdependent copyright industries, partial copyright industries and non-dedicated support industries. In 2004, the industrial value-added of the non-core copyright industries is about 469.6 billion RMB which takes up roughly 2.9% of national GDP. The employment is 3.15 million which accounts for 2.8% of national employment. Total value of customs export of merchandise is 90.6 billion USD which is 15.3% of the total value of all customs export.

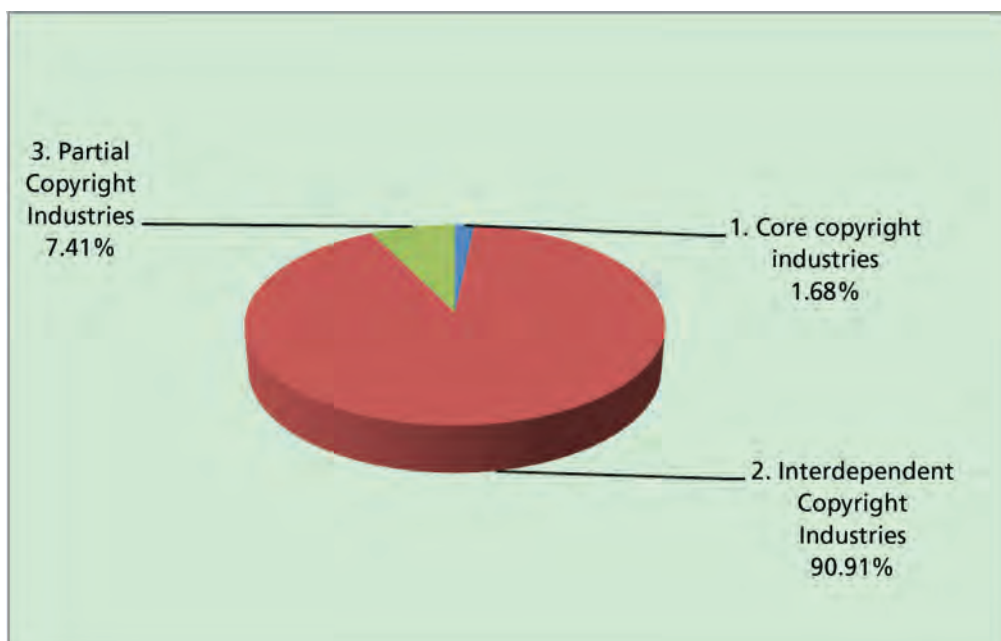
**Diagram 1: The Composition of Industrial Value-Added of Chinese Copyright-Based Industries in 2004**



**Diagram 2: The Composition of Employment among Chinese Copyright-Based Industries in 2004**



**Diagram 3: The Composition of Total Export of Merchandise of Chinese Copyright-Based Industry in 2004**



#### 4.1.2 The Economic Contribution of Chinese Copyright-Based Industries in 2006

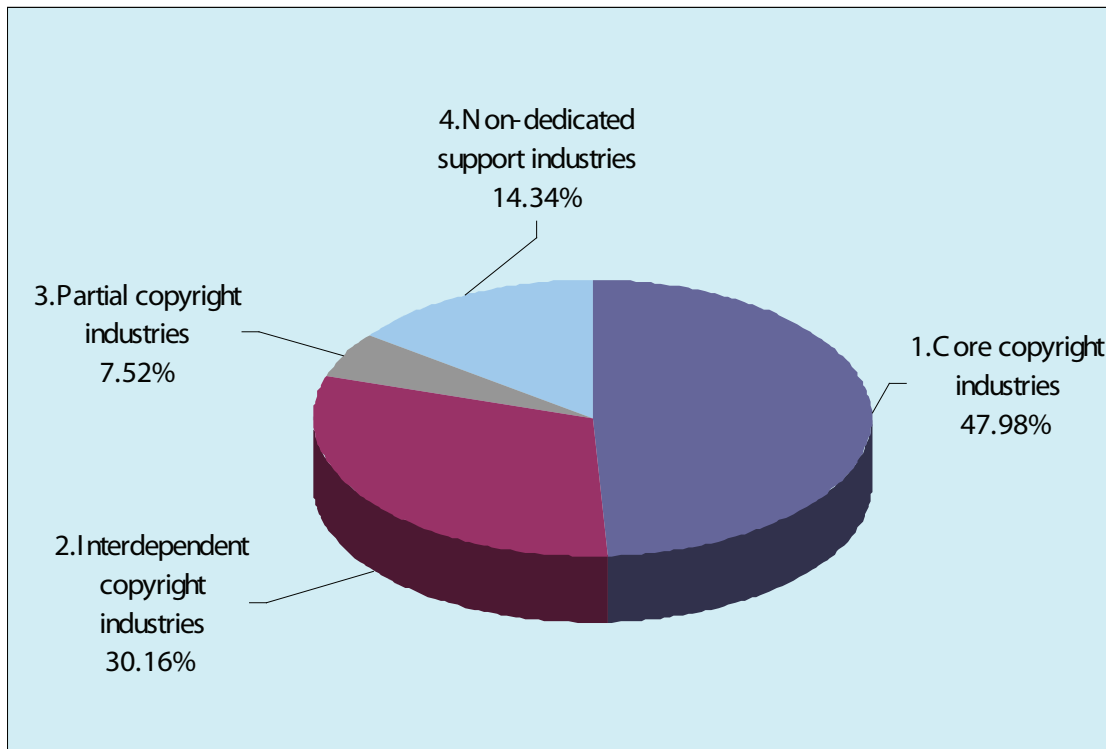
The value-added of Chinese copyright industries in 2006 is 1,319.7 billion RMB which takes up roughly 6.4% of national GDP (210,871 billion). The employment is 7.63 million which accounts for 6.5% of total national employment (117.132 million). Total export of merchandise is 149.3 billion USD which is 15.4% of the total value of all export (968.94 billion USD).

**Table 6: The Economic Contribution of Chinese Copyright-Based Industry in 2006**

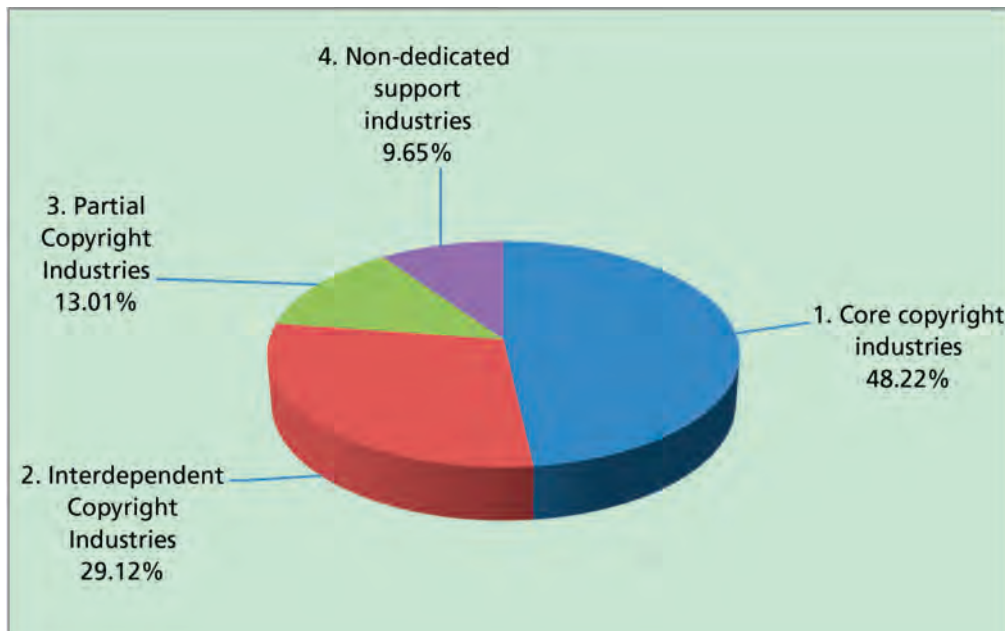
Indicators	Industrial Value-Added		Employment		Total Value of Export of Goods		
	Value (in billion RMB)	Ratio (%)	Number (in thousands)	Ratio (%)	Value (in billion USD)	Ratio (%)	
<b>Core copyright industries</b>	647.16	3.07	3679	3.14	2.49	0.26	
<b>Non-core copyright industries</b>	<b>Interdependent copyright industries</b>	406.90	1.93	2222	1.90	136.38	14.08
	<b>Partial copyright industries</b>	101.42	0.48	993	0.85	10.39	1.07
	<b>Non-dedicated support industries</b>	193.46	0.92	736	0.63	–	–
	<b>Total</b>	701.78	3.33	3950	3.37	146.77	15.15
<b>Total</b>	1348.93	6.40	7629	6.51	149.26	15.40	

Note: The above ratio is in proportion to the national GDP, national employment and total value of all export goods, respectively.

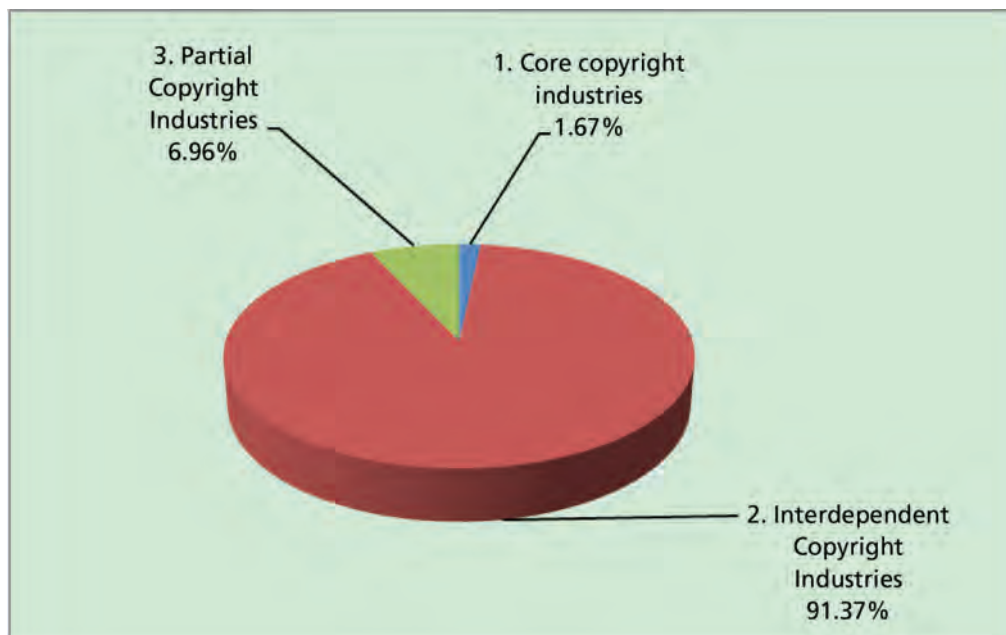
**Diagram 4: The Composition of Industrial Value-Added of Chinese Copyright-Based Industry in 2006**



**Diagram 5: The Composition of Employment among Chinese Copyright-Based Industry in 2006**



**Diagram 6: The Composition of Total Export Goods of Chinese Copyright-Based Industry in 2006**



#### 4.1.3 Comparison of Industrial Value-Added between Copyright Industries and Other Industries

From the ratio of industrial value-added to national GDP's point of view, there are only three industries, namely manufacture (33.8%), wholesale and retail (7.3%) and agriculture (6.6%), having higher ratio than that of copyright-based industries among all the twenty one industry categories, while the rest of eighteen industries have a lower ratio. There are eleven categories of industry having higher ratio than core copyright industries, including: manufacture, wholesale and retail, agriculture, transportation, storage, mailing and postal industry (5.9%), mining (5.7%), construction (5.6%), real estate (4.6%), finance (4.0%), electric, energy and water supply and delivery (3.8%), public management and society management (3.6%), animal breeding (3.1%), while there are ten categories, such as education, lodging and food and etc., having lower ratio.

**Table 7: Industrial Value-Added of Chinese Economic Industries and their Ratios to National GDP in 2004 and 2006**

Unit: billion RMB%

Industry Category	2004		2006	
	Value	Ratio	Value	Ratio
<b>Primary Industry</b>	<b>2,141.27</b>	<b>13.4</b>	<b>2,404.00</b>	<b>11.7</b>
– Agriculture	1,182.77	7.4	1,395.19	6.6
– Forest	90.56	0.6	109.30	0.5
– Animal Breeding	595.37	3.7	657.82	3.1
– Fishing	208.11	1.3	255.59	1.2
– Related Service Industry	45.69	0.3	55.84	0.3
<b>Secondary Industry</b>	<b>7,390.43</b>	<b>46.2</b>	<b>1,0316.20</b>	<b>48.7</b>
– Mining	762.83	4.8	1,208.29	5.7
– Manufacturing	5,174.85	32.4	7,121.29	33.6
– Electric, Energy and Water supply and delivery	583.33	3.6	801.52	3.8
– Construction	869.43	5.4	1,185.11	5.6
<b>Third Industry</b>	<b>6,456.13</b>	<b>40.4</b>	<b>8,472.14</b>	<b>40.0</b>
– Transport, Storage, Mailing and Postal	930.44	5.8	1,248.11	5.9
– Information communication, computer service and software	423.63	2.6	532.92	2.5

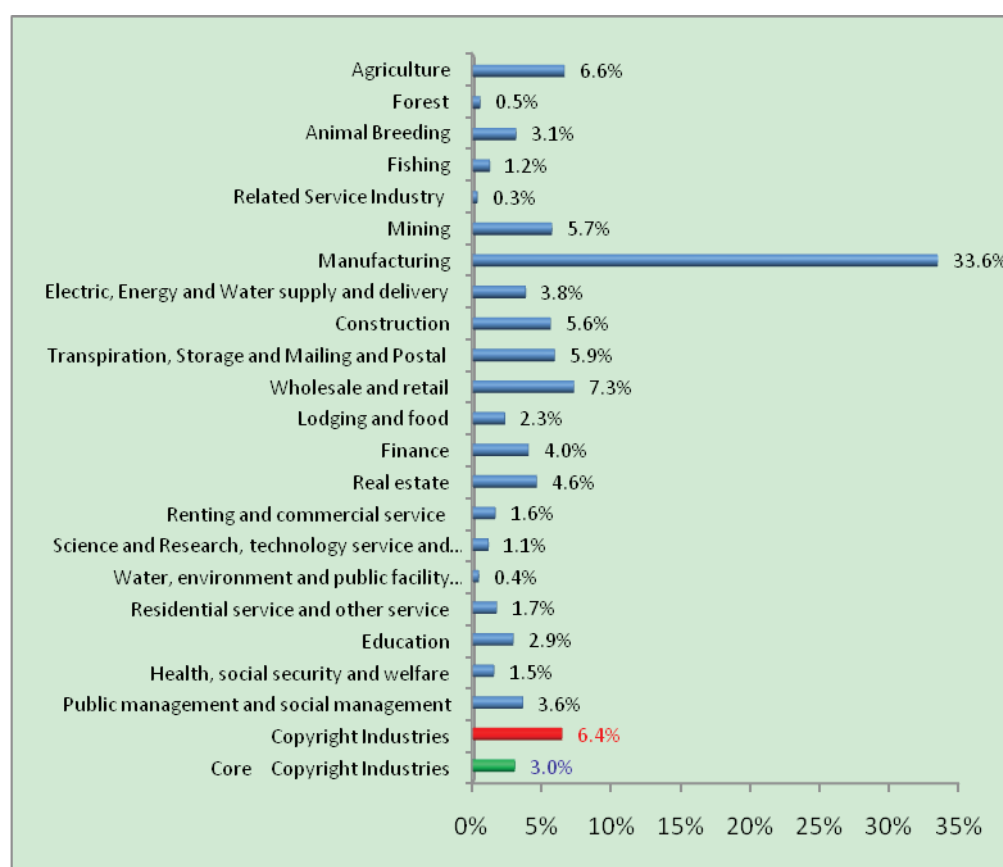


**Table 7: Industrial Value-Added of Chinese Economic Industries and their Ratios to National GDP in 2004 and 2006 (continued)**

– Wholesale and retail	1,245.38	7.8	1,547.11	7.3
– Lodging and food	366.48	2.3	479.21	2.3
– Finance	539.30	3.4	849.03	4.0
– Real estate	717.41	4.5	966.40	4.6
– Renting and commercial service	262.75	1.6	328.00	1.6
– Science and Research, technology service and geological exploration	175.95	1.1	240.93	1.1
– Water, environment and public facility management	76.86	0.5	94.42	0.4
– Residential service and other service	248.15	1.6	354.15	1.7
– Education	489.26	3.1	617.90	2.9
– Health, social security and welfare	262.07	1.6	320.96	1.5
– Culture, sport and entertainment	104.32	0.7	132.52	0.6
– Public management and social management	614.14	3.8	760.46	3.6

Source: Primary industrial value-added is obtained from the Department of Agriculture website (<http://www.agri.gov.cn/sjz/baipsh/WB2007.htm#1>), while others are obtained from *China Statistical Yearbook 2006-2008*, edited by the National Bureau of Statistic, People's Republic of China.

**Diagram 7: The Comparison of Industrial Value-Added between Copyright-Based Industry and Other Industries in 2006**



Therefore, we have a reason to believe that from the point of view of the industrial value-added, the economic contribution of overall copyright-based industry is on top of the category list, while that of core copyright industries sits in the middle of list. Meanwhile, there is a crossing point between copyright-based industry and the other twenty one industries involved in the comparison which also needs to be paid special attention to.

## 4.2 The Economic Contribution of Core Copyright Industries

### 4.2.1 The Economic Contribution of Chinese Core Copyright Industries in 2004

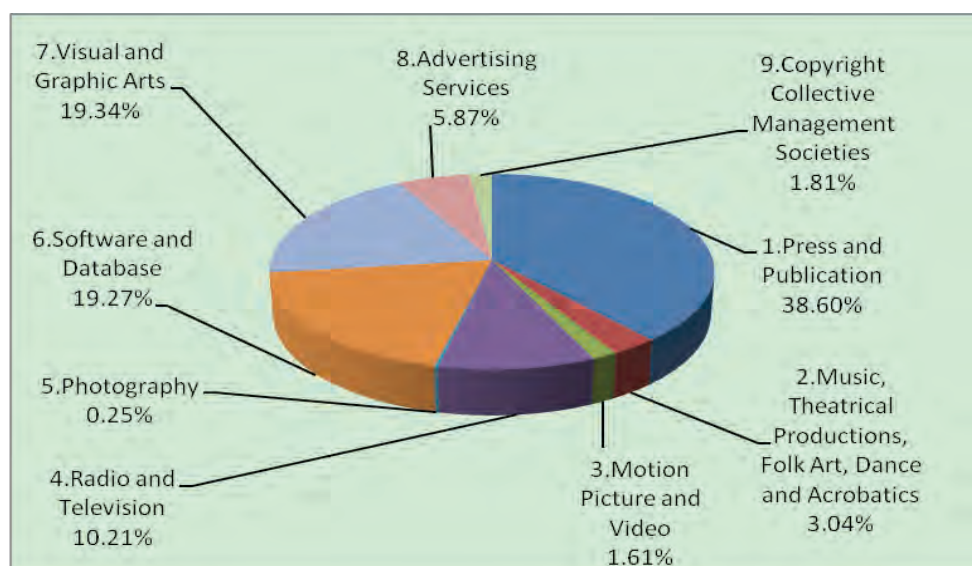
**Table 8: The value-added, employment and total commodity exports of Chinese core copyright industries in 2004**

Main Industry Group	Value-Added (in billion RMB)	Employment (in thousands)	Total Commodity Exports (in million USD)
Written works	123.08	747.21	956.58
Music, opera, folk art, dance and acrobatics	9.70	214.01	226.72
Film and video	5.14	118.85	0.06
Broadcasting and TV	32.55	302.10	–
Photography	0.79	9.87	2.19
Software and database	61.44	889.01	345.22
Art and architecture design, graphic and model product	61.68	543.30	23.84
Advertising service	18.70	148.46	–
Copyright collective management and service	5.78	36.20	–
Total	318.86	3,009.01	1,554.61
Ratio (%)	1.99	2.71	0.26

**Table 9: Total service trade exports of Chinese core copyright industries in 2004**

Categories	Total service trade exports (in millions of dollars)
Computer and information service (software and database)	546
Exclusive right fees (copyright)	39
Advertisement and publicity	849
Film and audio/video	41
total	1475
ratio (%)	2.36

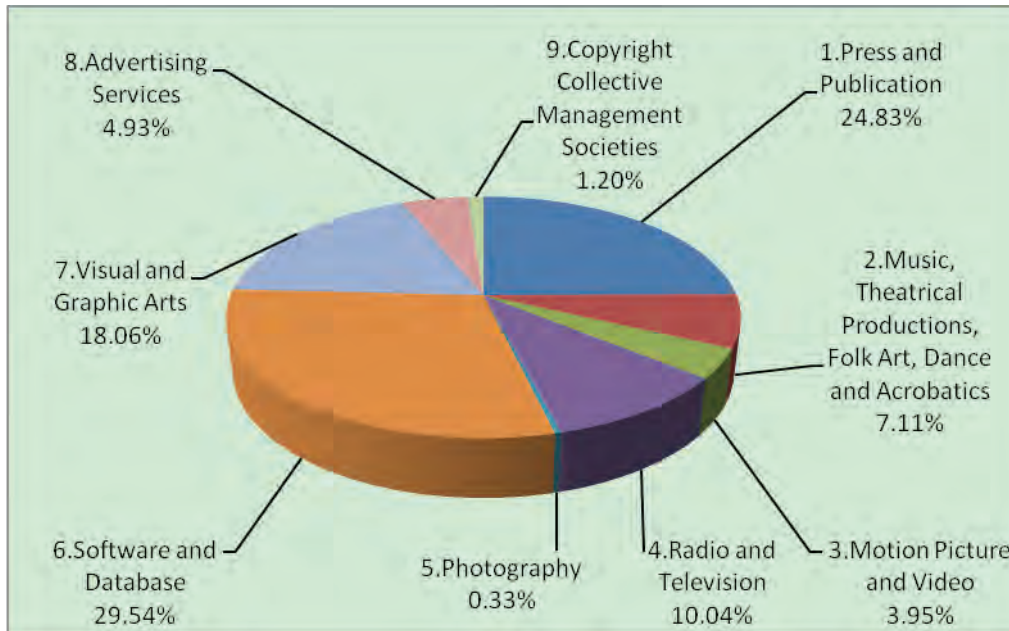
**Diagram 8: The Composition of Industrial Value-Added of Chinese Core Copyright Industries in 2004**



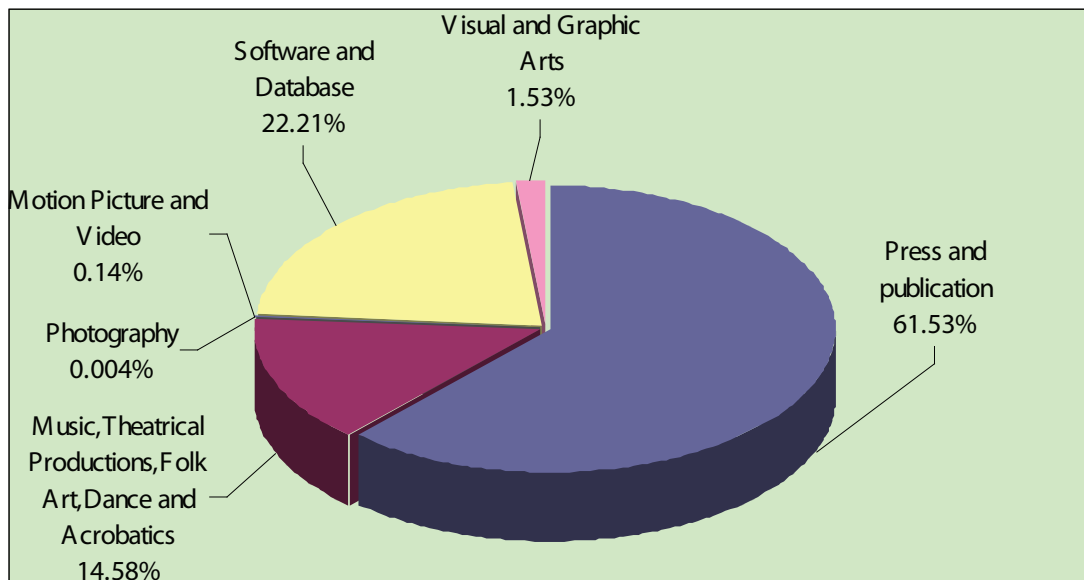
In 2004, the total value-added of Chinese core copyright industries was 318.9 billion RMB, accounting for 2.0% of national GDP and employed 3.01 million workers or 2.7% of total employment in that year. The total commodity export value for customs was 1.6 billion USD or 0.3% of the total national commodity export value. The total service trade export value was about 1.5 billion USD or 2.4% of the national service trade export

value (62.43 billion USD). The total of the above two items, including the total export value of commodity and service trade was about 3 billion USD or 0.5% of the total national trade value (655.75 billion USD).

**Diagram 9: The Composition of Employment among Chinese Core Copyright Industries in 2004**



**Diagram 10: The composition of total value of export goods from Chinese core copyright industries in 2004**



#### 4.2.2 The Economic Contribution of Chinese Core Copyright Industries in 2006

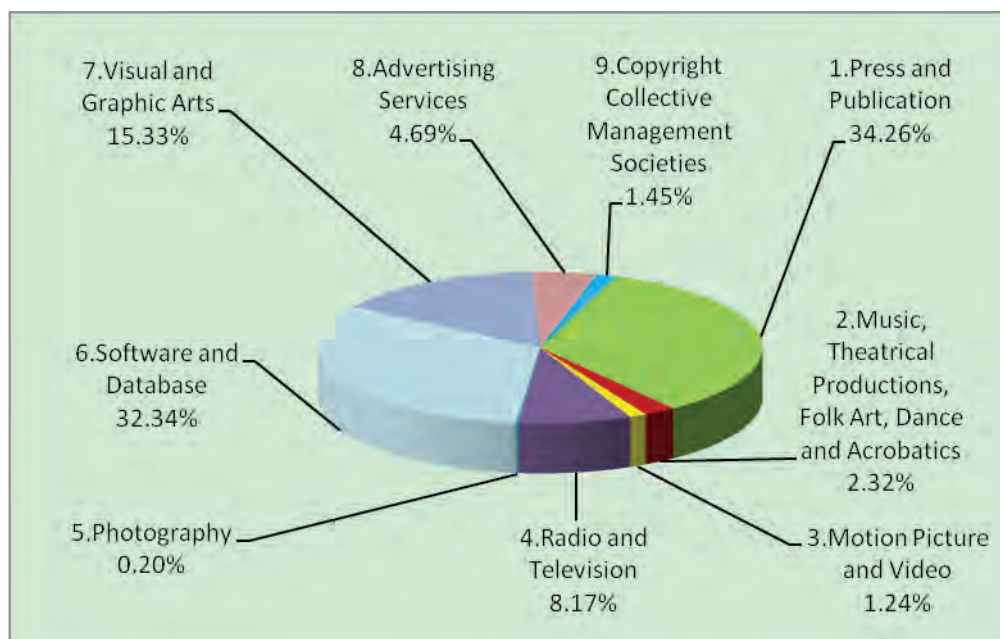
**Table 10: The value-added, employment and total commodity exports of Chinese core copyright industries in 2006**

Main Industry Group	Added Value (in billion RMB)	Employment (in thousands)	Total Value of Export Goods (in million USD)
Written works	221.69	781.56	1,450.45
Music, opera, folk art, dance and acrobatics	15.04	211.33	153.15
Film and video	8.04	118.26	0.17
Broadcasting and TV	52.87	307.47	–
Photography	1.29	10.31	0.95
Software and database	209.29	1,451.18	828.62
Art and architecture design, graphic and model product	99.18	574.19	60.91
Advertising service	30.38	180.77	–
Copyright service and management	9.39	44.08	–
Total	647.16	3,679.14	2,494.25
Ratio (%)	3.06	3.14	0.26

**Table 11: Total service trade exports of Chinese core copyright industries in 2006**

Categories	Total service trade exports (in millions of dollars)
Computer and information service (software and database)	986
Exclusive right fees (copyright)	34
Advertisement and publicity	1445
Film and audio/video	137
total	2602
ratio (%)	283

**Diagram 11: The composition of value-added of Chinese core copyright industries in 2006**

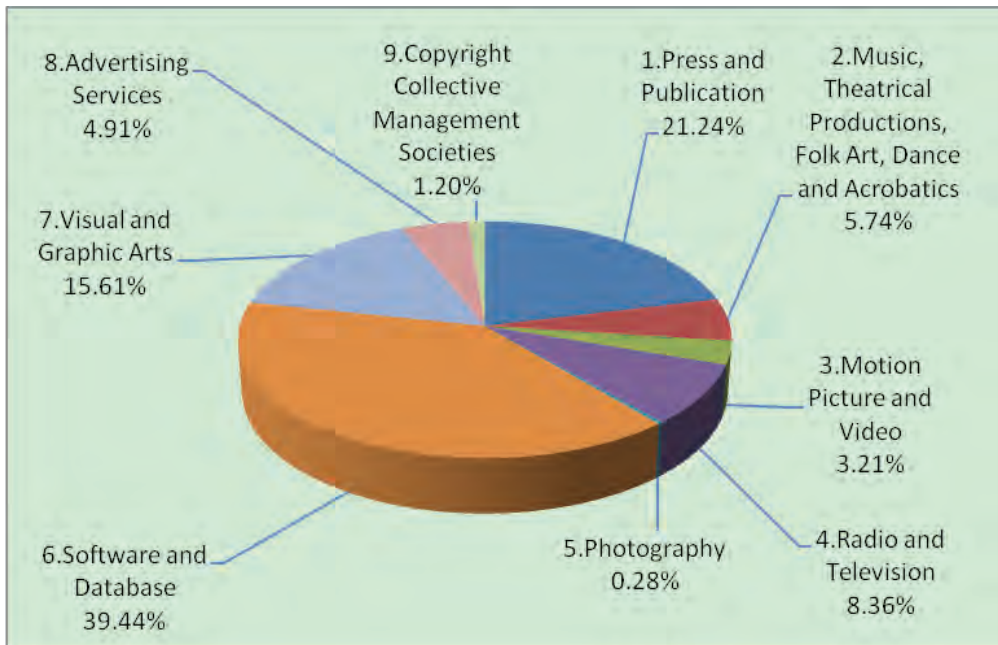


In 2006, the total value-added of Chinese core copyright industries was 647.2 billion RMB, accounting for 3.1% of national GDP and employed 3.68 million workers or 3.1% of total employment in that year. The total commodity export value for customs was 2.5 billion USD or 0.3% of the total national commodity export value.

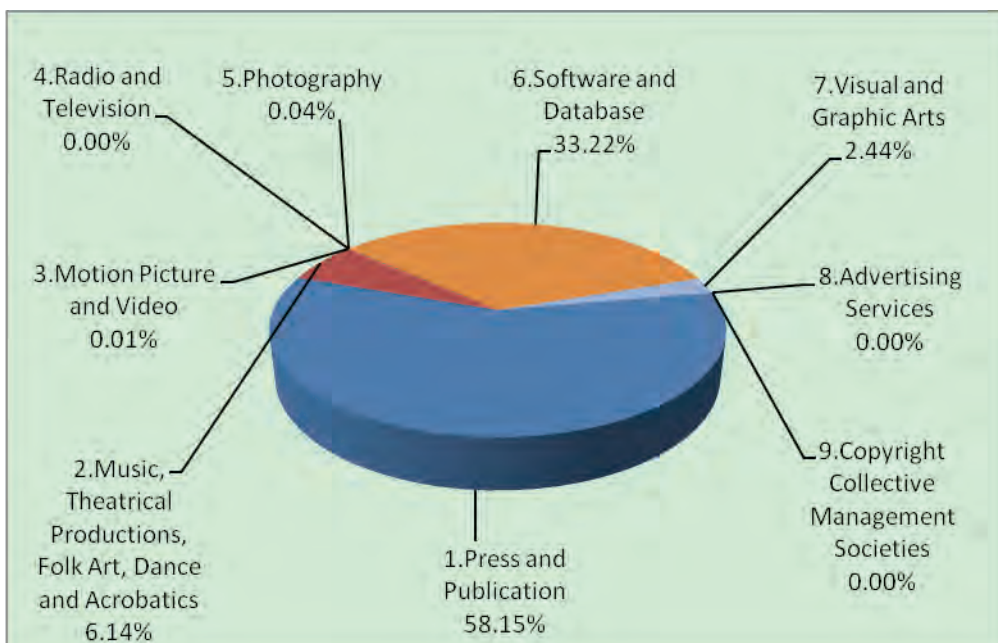


The total service trade export value was about 2.6 billion USD or 2.9% of the national service trade export value (92.00 billion USD). The total of the above two items, including the total export value of commodity and service trade was about 5.1 billion USD or 0.5% of total national trade value (1060.94 billion USD).

**Diagram 12: The composition of employment of Chinese core copyright industries in 2006**



**Diagram 13: The composition of total value of export goods of Chinese core copyright industries in 2006**



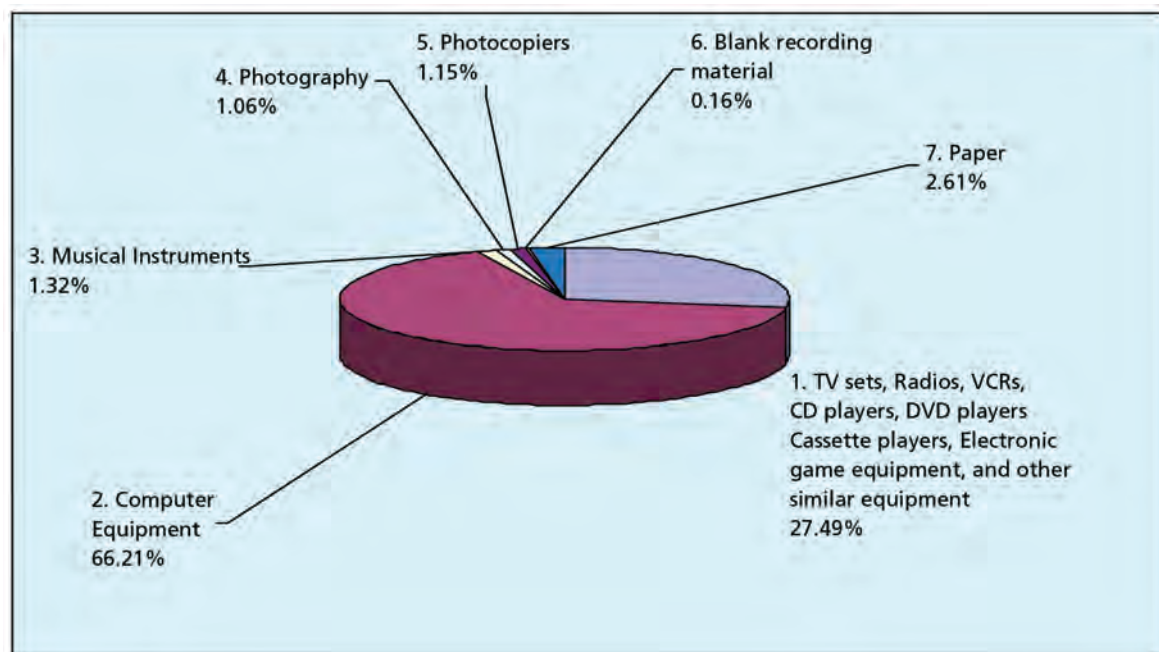
### 4.3 The Economic Contribution of Interdependent Copyright Industries

#### 4.3.1 The Economic Contribution of Chinese Interdependent Copyright Industries in 2004

**Table 12: The economic contribution of Chinese interdependent copyright industry in 2004**

Main Industry Group	Added Value (in billions of RMB)	Employment (in thousands)	Total Value of Commodity Export (in millions of dollars)
TV, Radio, Video Recorder, CD Player, DVD Player, Cassette Player, Video Games and other similar equipments	71.29	632.06	21,785.98
Computer and related equipments	171.68	855.63	58,768.28
Musical Instrument	3.42	36.10	810.33
Camera and film, photography equipment	2.75	20.78	1,607.89
Copier	2.99	18.71	332.36
Recording Media	0.41	4.39	323.88
paper	6.77	49.10	174.24
Total	259.31	1,616.77	83,802.95
Ratio (%)	1.62	1.46	14.12

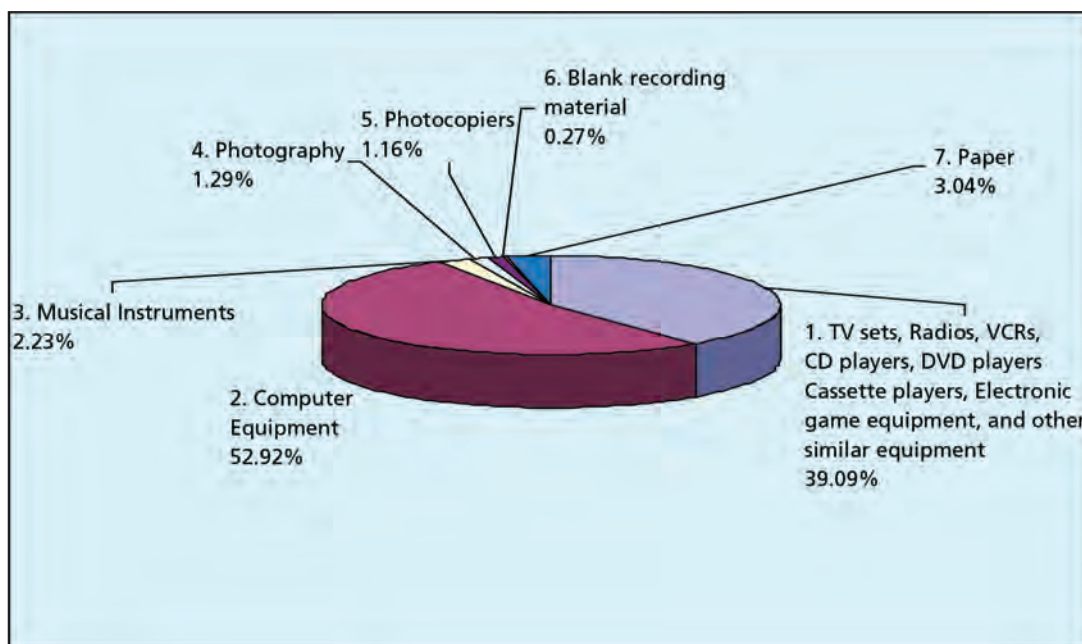
**Diagram 14: The composition of value-added of Chinese interdependent copyright industries in 2004**



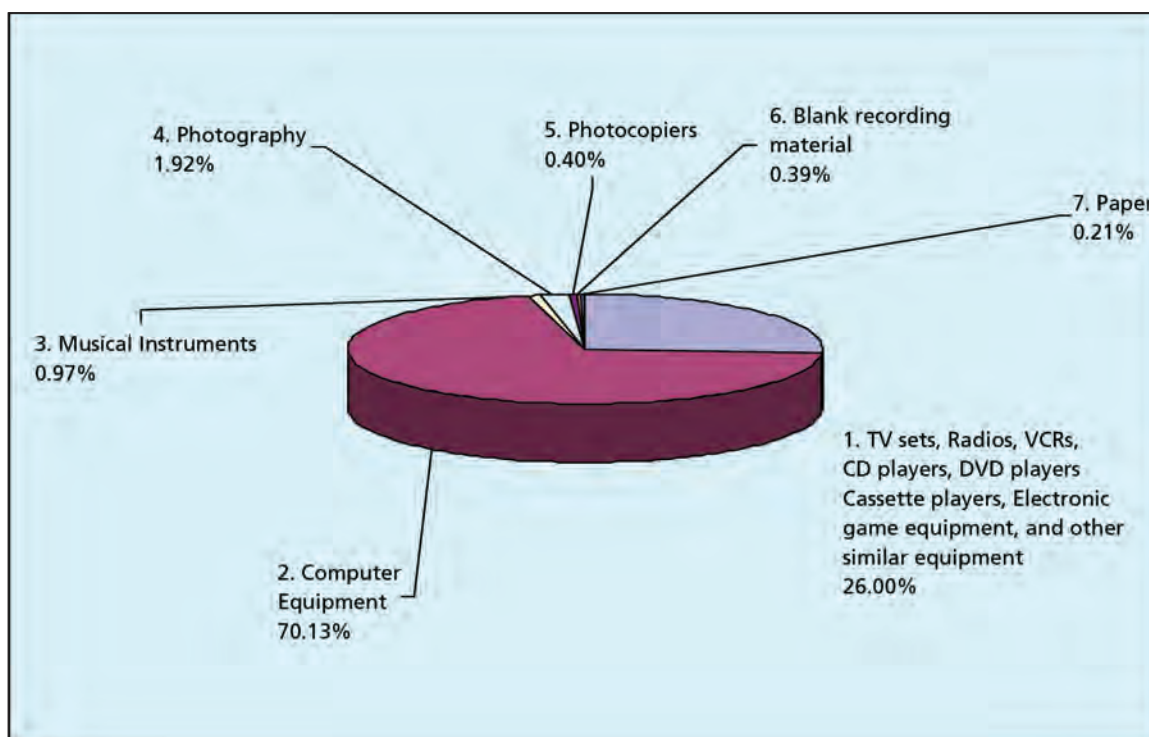
In 2004, the value-added of Chinese interdependent copyright industries was 259.3 billion RMB or 1.6% of national GDP; the employment was 1.6 million or 1.5% of national total employment and the total value of commodity export for customs was 83.8 billion USD or 14.1% of the total national commodity export for customs.



**Diagram 15: The composition of employment in Chinese interdependent copyright industries in 2004**



**Diagram 16: The composition of total value of export goods from Chinese interdependent copyright industries in 2004**



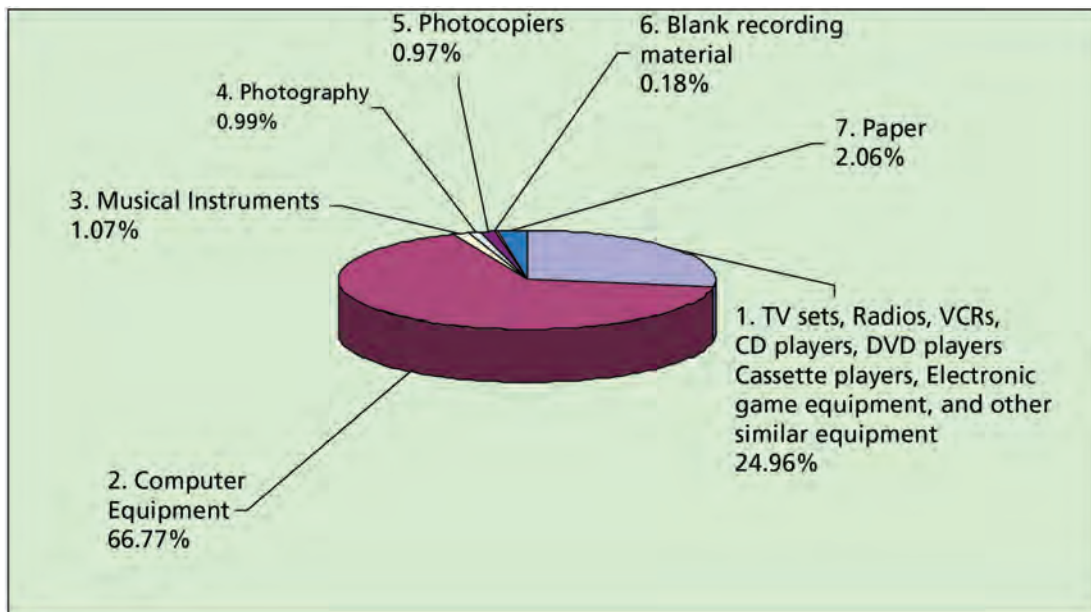
#### 4.3.2 The Economic Contribution of Chinese Interdependent Copyright Industries in 2006

The value-added of Chinese interdependent copyright industries was 406.9 billion RMB in 2006, accounting for 1.9% of national GDP; the employment was 2.2 million, which is 1.9% of national total employment; the total value of export goods is 136.4 billion USD which accounts for 14.1% of the total export value of all goods that year.

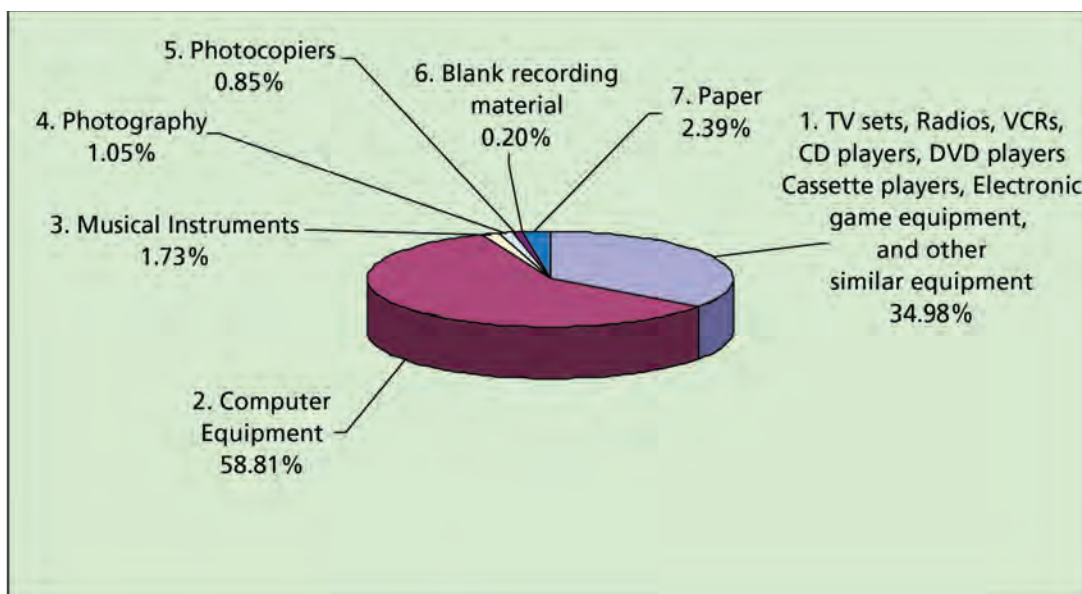
**Table 13: The economic contribution of Chinese interdependent copyright industries in 2006**

Main Industry Group	Value-Added (in billion RMB)	Employment (in thousands)	Total Value of Export Goods (in million USD)
TV, Radio, Video Recorder, CD Player, DVD Player, Cassette Player, Video Games and other similar equipments	101.57	776.67	36,183.12
Computer and related equipments	283.90	1,306.55	92,951.55
Musical Instrument	4.37	38.41	1,016.65
Camera and film, photography equipment	4.03	23.28	3,342.24
Copier	3.93	18.90	2,017.68
Recording Media	0.74	4.54	500.80
Paper	8.37	53.19	370.16
Total	406.90	2,221.54	136,382.20
Ratio (%)	1.93	1.90	14.08

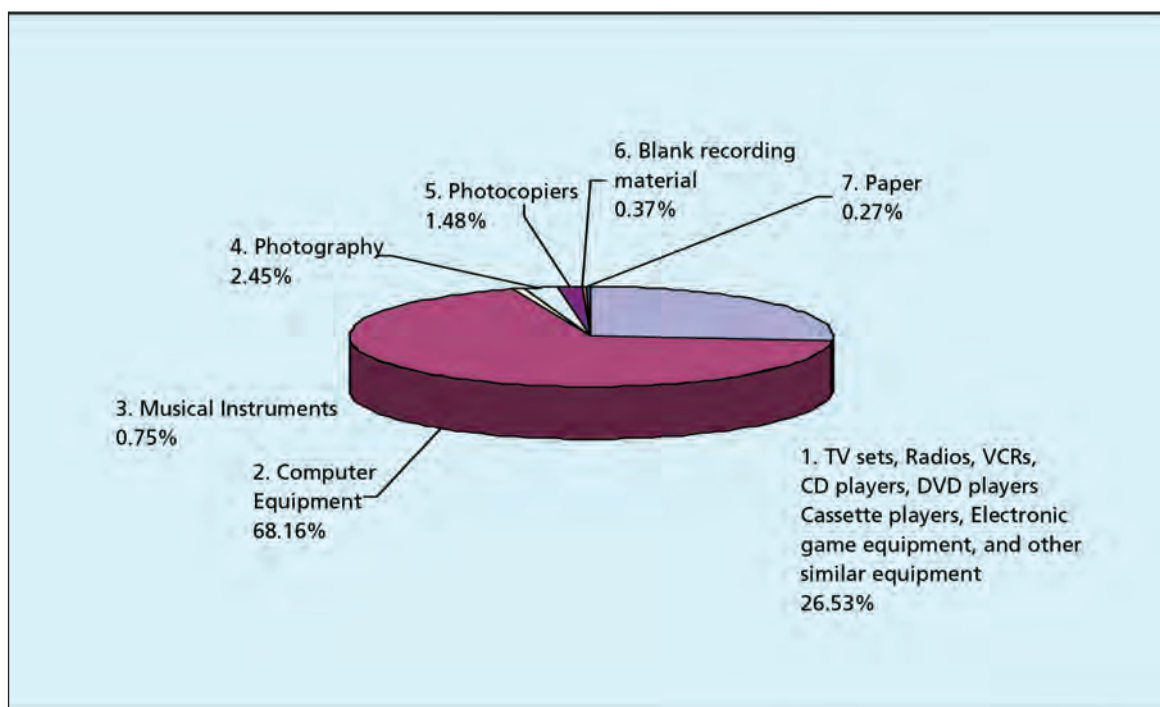
**Diagram 17: The composition of value-added of Chinese interdependent copyright industries in 2006**



**Diagram 18: The composition of employment among Chinese interdependent copyright industries in 2006**



**Diagram 19: The composition of total value of export goods from Chinese interdependent copyright industries in 2006**



## 4.4 The Economic Contribution of Partial Copyright Industries

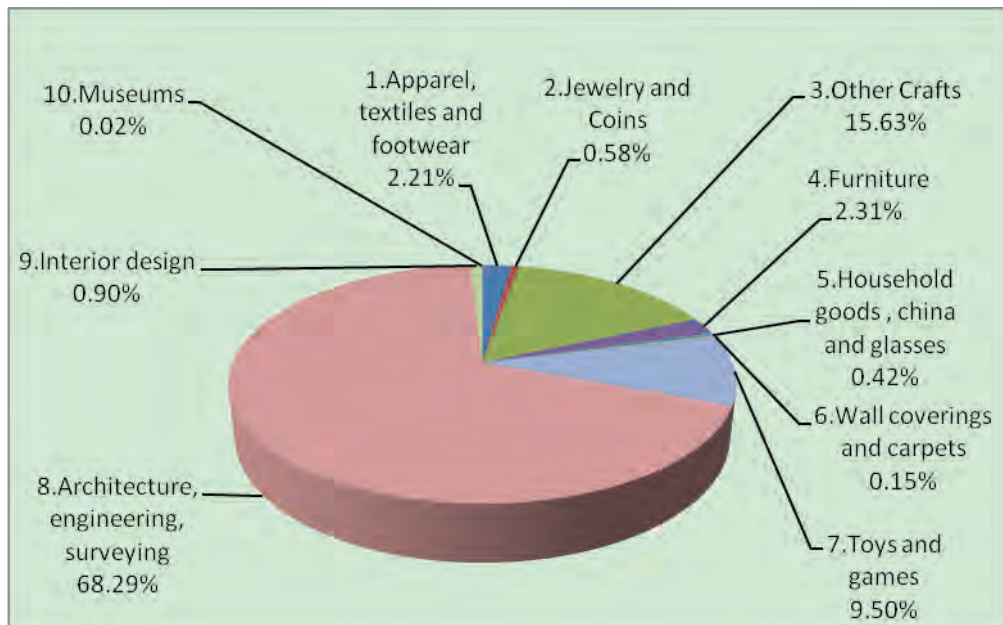
### 4.4.1 The Economic Contribution of Chinese Partial Copyright Industries

The industrial value-added of Chinese partial copyright industries is 76.4 billion RMB in 2004, accounting for 0.5% of national GDP; the employment is 0.9 million which is 0.8% of national total employment; the total value of export goods is 6.8 billion USD which accounts for 1.2% of the total export value of all goods that year.

**Table 14: The economic contribution of Chinese partial copyright industries in 2004**

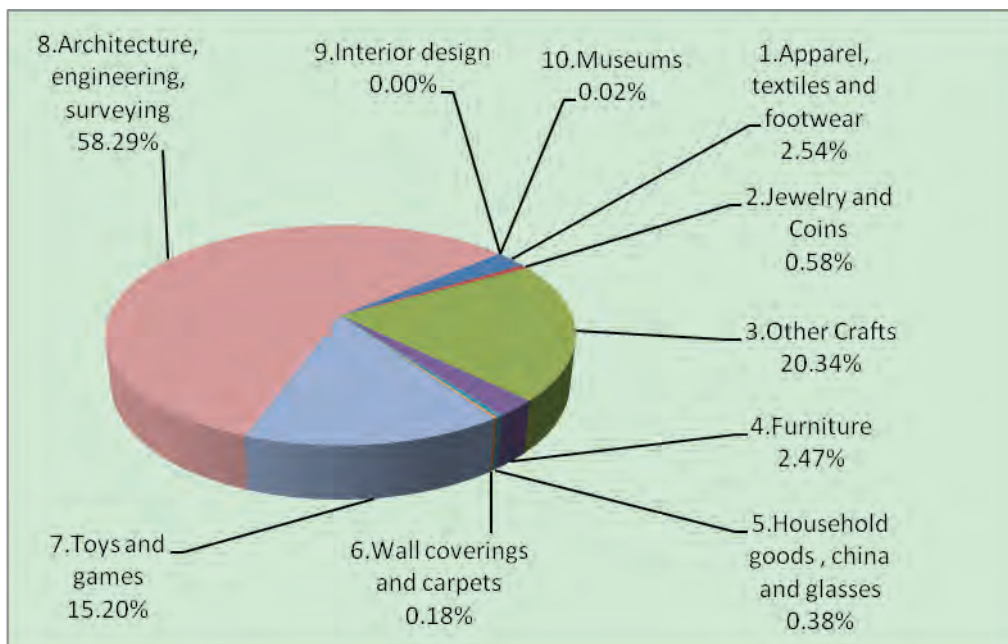
Main Industry Group	Added Value (in billion RMB)	Employment (in thousands)	Total Value of Export Goods (in million USD)
Clothes, Texture and Shoes	1.69	21.95	397.97
Jewelry and Coins	0.44	5.03	176.94
Other crafts	11.94	176.06	1,473.35
Furniture	1.76	21.40	357.88
Household goods, porcelain and glassware	0.32	3.31	65.29
Wall paper and Carpet	0.11	1.58	16.33
Toys and Games	7.26	131.60	4,340.16
Architecture, Engineering and Surveying	52.17	504.60	–
Interior Design	0.68	–	–
Museum	0.01	0.17	–
Total	76.38	865.70	6,827.92
Ratio (%)	0.48	0.78	1.15

**Diagram 20: The composition of industrial value-added of Chinese partial copyright industries in 2004**

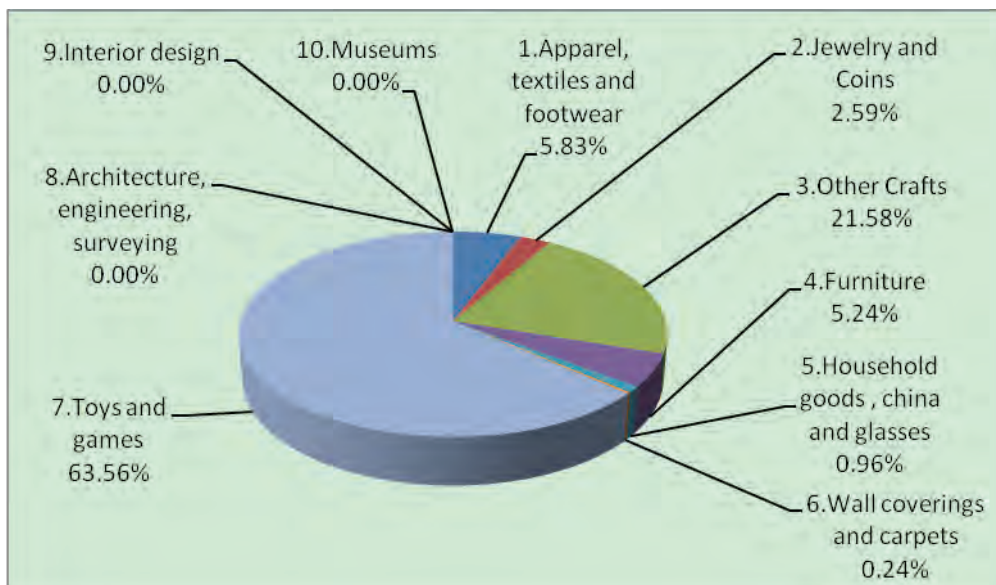




**Diagram 21: The composition of employment among Chinese partial copyright industry in 2004**



**Diagram 22: The composition of total value of export goods from Chinese partial copyright industry in 2004**



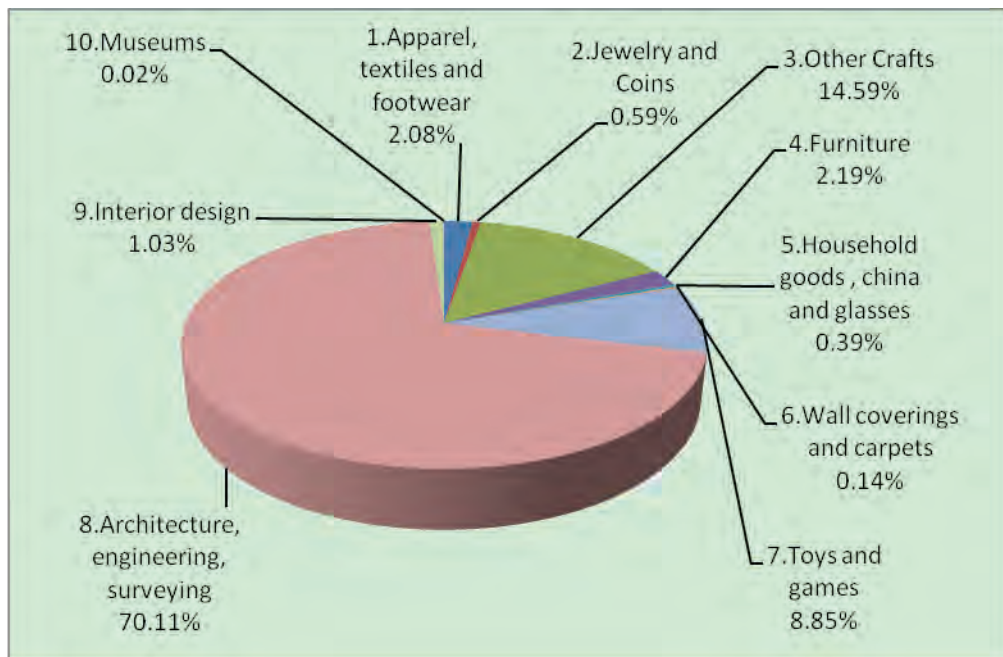
#### 4.4.2 The Economic Contribution of Chinese Partial Copyright Industries in 2006

The industrial value-added of Chinese partial copyright industries is 101.4 billion RMB in 2006, accounting for 0.5% of national GDP; the employment is 0.99 million which is 0.9% of national total employment; the total value of export goods is 10.4 billion USD which accounts for 1.1% of the total export value of all goods that year.

**Table 15: The economic contribution of Chinese partial copyright industry in 2006**

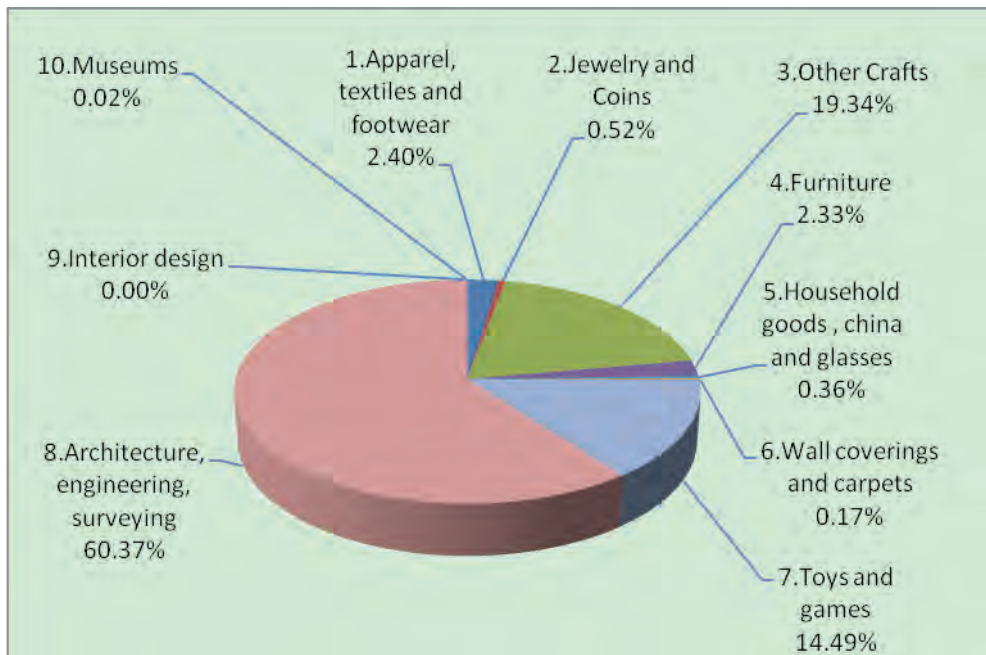
Main Industry Group	Added Value (in billion RMB)	Employment (in thousands)	Total Value of Export Goods (in million USD)
Clothes, Texture and Shoes	2.11	23.83	595.06
Jewellery and Coins	0.60	5.12	233.09
Other crafts	14.80	191.95	2,183.90
Furniture	2.23	23.13	766.17
Household goods, porcelain and glassware	0.39	3.60	88.71
Wall paper and Carpet	0.14	1.71	22.89
Toys and Games	8.97	143.84	6,495.72
Architecture, Engineering and Surveying	71.11	599.22	–
Interior Design	1.05	–	–
Museum	0.02	0.17	–
Total	101.42	992.57	10,385.53
Ratio (%)	0.48	0.85	1.07

**Diagram 23: The composition of industrial value-added of Chinese partial copyright industries in 2006**

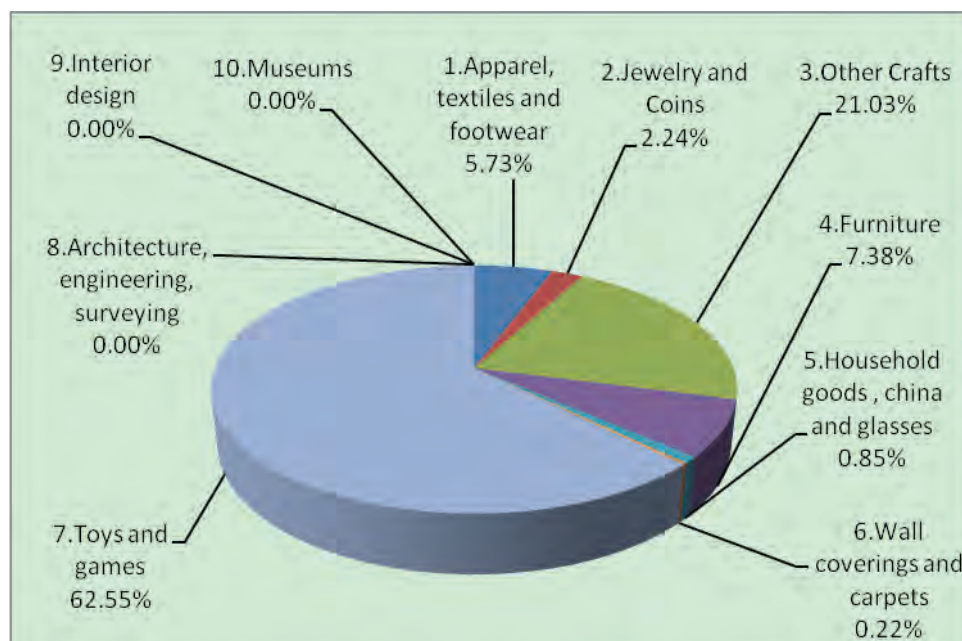




**Diagram 24: The composition of employment in Chinese partial copyright industries in 2006**



**Diagram 25: The composition of total value of export goods from Chinese partial copyright industries in 2006**



## 4.5 The Economic Contribution of Non-Dedicated Support Industries

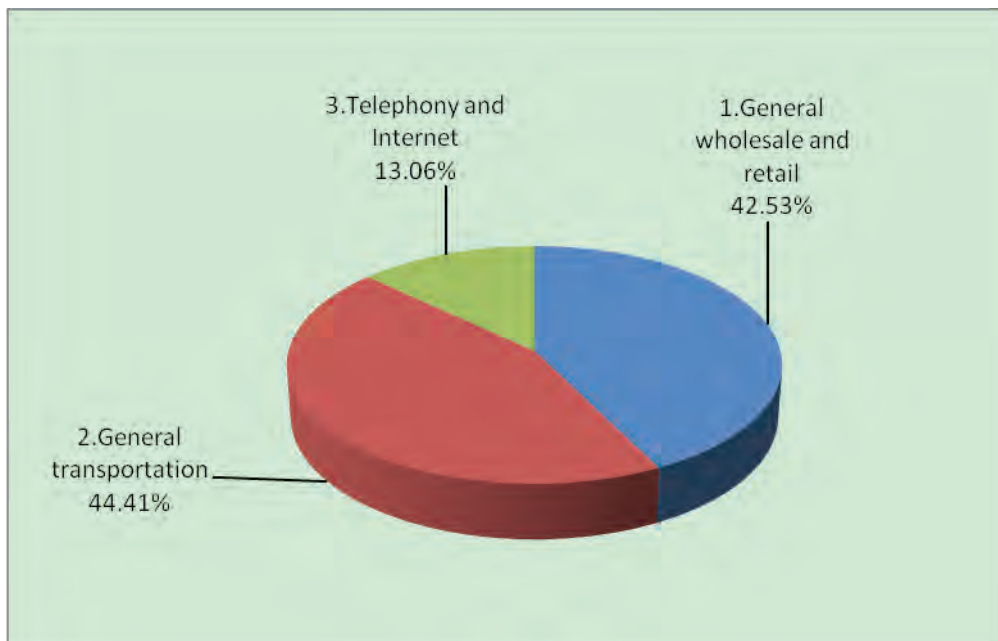
### 4.5.1 The Economic Contribution of Chinese Non-Dedicated Support Industries

The industrial value-added of Chinese non-dedicated support industries is 133.9 billion RMB, accounting for 0.8% of national GDP and the employment is 670 thousands which is 0.6% of the total number of people employed in that year.

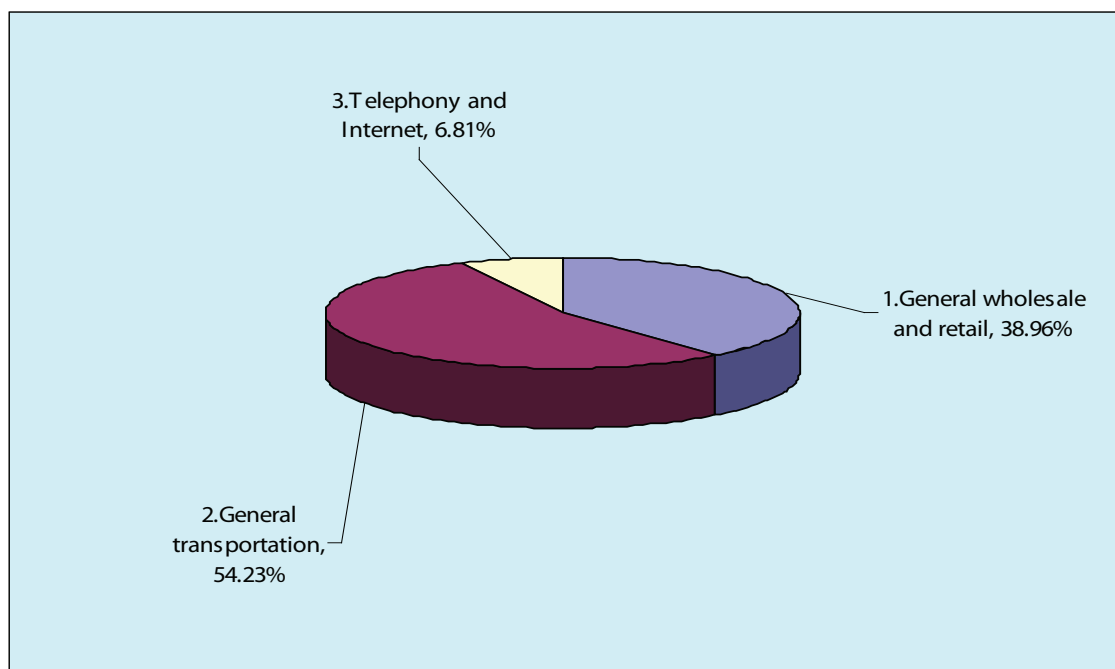
**Table 16: The economic contribution of Chinese non-dedicated support industries in 2004**

Main Industry Group	Added Value (in billion RMB)	Employment (in thousands)
Wholesale and retail	56.94	276.74
Transport, storage, mailing and postal industry	59.45	350.60
Telephony and Internet	17.48	40.22
Total	133.87	667.56
Ratio	0.84	0.60

**Diagram 26: The composition of industrial value-added of Chinese non-dedicated support industries in 2004**



**Diagram 27: The composition of employment among Chinese non-dedicated support industries in 2004**



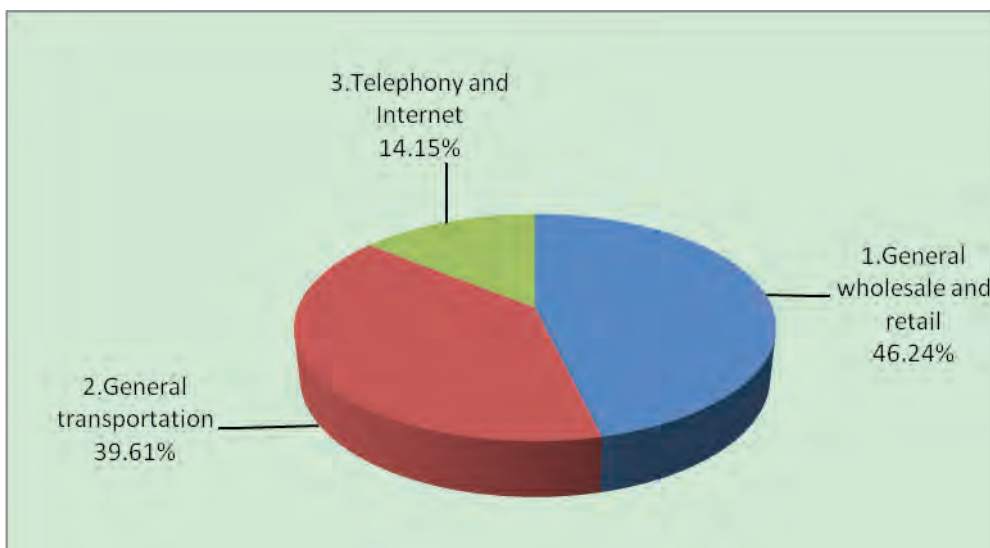
#### 4.5.2 The Economic Contribution of Chinese Non-Dedicated Support Industries in 2006

The industrial value-added of Chinese non-dedicated support industries is 193.5 billion RMB, accounting for 0.9% of national GDP and the employment is 740 thousands which is 0.6% of the total number of people employed that year.

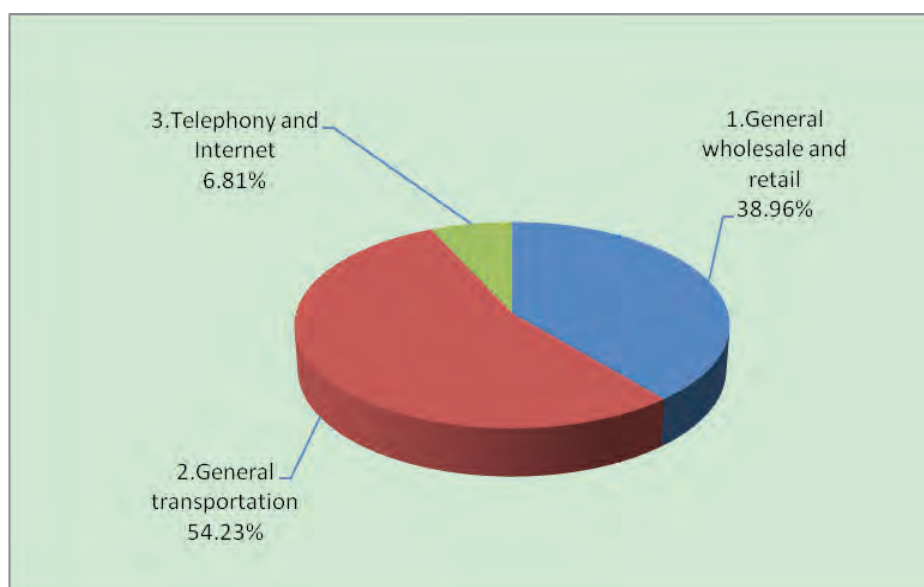
**Table 17: The direct economic contribution of Chinese non-dedicated support industries in 2006**

Main Industry Group	Added Value (in billion RMB)	Employment (in thousands)
Wholesale and Retail	89.45	286.74
Transport, Storage, Mailing and Postal Industry	76.63	399.07
Telephony and Internet	27.38	50.13
Total	193.46	735.94
Ratio	0.92	0.63

**Diagram 28: The composition of industrial value-added of Chinese non-dedicated support industries in 2006**



**Diagram 29: The composition of employment among Chinese non-dedicated support industries in 2006**



## Chapter 5. International Comparison

---

International comparison is an important part of these researches, but it has “difficulty progressing”<sup>43</sup> due to various concepts, research approaches and a different protective scope and extent of copyright laws in different countries. It is gratifying that WIPO’s *Guide* has established a number of general guidelines which provide a foundation for international comparison, though they could not level out all the differences above. This research collects the previous research findings and approaches in foreign countries as many and complete as possible in order to provide a reference for this study. It also provides a comparatively correct assessment for the size of copyright industries in China.

### 5.1 Brief Overview of the Researches in Different Countries

As mentioned above, since the first research on the economic contribution of copyright industries in Canada and Sweden in the 1970s, more than 30 countries have done researches in this field. These studies have similar research direction, such as the size of copyright industries, employment, foreign trade calculated by the percentage of GDP, but they have different research approaches and have different ideas of many concrete problems.

#### 5.1.1 *The Differences of Present Studies*

As mentioned in WIPO’s *Guide*, there are many differences in “research purpose and usage, selection of indexes, standard of application, research basis and so on”. The differences can be seen from the following aspects.

##### 5.1.1.1 *Concept*

The concept used in WIPO’s *Guide* is “copyright industries” which is also used in the United States and Australia, while it is called “creative industries” in Britain and New Zealand, “cultural industries” in Germany and Spain, and “cultural content industries” in Finland.

The different concepts and terms lead to the different research scope and classification in various countries which influence the measure for economic contributions of copyright industries.

##### 5.1.1.2 *Scope and Classification*

Copyright industries are classified into core copyright industries, interdependent copyright industries, partial copyright industries and non-dedicated supporting industries in WIPO’s *Guide*. In Singapore and Lithuania, the same classification is used. In the United States, the previous studies also classified copyright industries into four categories but in a different way and adjusted to the same classification as WIPO after 2004. The report of the EU (European Union) classifies copyright industries into three categories core copyright industries, copyright-dependent industries and copyright-related industries. Some countries classify copyright industries into two categories, such as core copyright industries and non-core copyright industries, in Canada for example. In Japan, copyright industries are defined directly by different industries, such as printing and publishing, computer software, broadcasting, transmission, advertising, music, film, legitimate theatre, games software, entertainment equipment, design, libraries and museums, and writers and artists, while the creative industries in Britain are also defined in this way (i.e. advertising, architecture, art and antiques market, crafts, design, fashion design, film and video, interactive leisure software, music, performing arts, publishing, software and computer services, television and radio, etc.).

It should be noted that though there are large differences of classifications among various countries, the small specific industries included have common features which make it possible for the comparison of studies among different countries.

---

<sup>43</sup>Refer to *The Economic Contribution of Copyright Industries Research Guide*, supra note, page 12.

### 5.1.1.3 *Measurement Methods*

The copyright industries are classified into four categories in WIPO's *Guide* for the important reason that they use different methods to measure economic contribution. The copyright factors in core copyright industries are determined as 100%, meaning that those contributions are counted as 100%, and those in the other three copyright industries are determined by investigation, analysis and calculation according to the actual situation in various countries.

The countries which do not follow the classification of WIPO of course do not use the measurement method in WIPO, but their copyright factors which follow the classification of WIPO are also different because of the influences of subjective factors such as researchers' academic background, the possession of information resources, etc. Taking interdependent copyright industries as an example, some countries determine the copyright factors as 100% such as the United States, Britain, Latvia, Hungary, Mexico, Jamaica, Bulgaria, Lebanon, Colombia, and Croatia, while some other countries fix different copyright factors according to the investigations on different industries, such as Singapore, the Philippines, Malaysia, Romania and Russia whose copyright factors float between 20% and 40%.

### 5.1.1.4 *Statistical Classification*

According to WIPO's *Guide*, national economic industries classification corresponding to copyright industries classification is the International Standard Industrial Classification (ISIC). Owing to the differences of statistical system among various countries, their statistical standard is different, such as in the United States and Canada with the North American Standard Industrial Classification (NAICS), in a report of the EU most EU countries go with the EU General Industrial Classification (NACE), in Singapore with Singapore Standard Industrial Classification (SSIC) and in Japan with Japan Standard Industrial Classification (JSIC).

There are differences in the national economic classification standards which reflect the unique nature of economic development in different countries but they can achieve the concrete classification scope of WIPO's *Guide* through minute adjustments in their research.

### 5.1.1.5 *Statistical Year*

Due to the various possessions of information resources, there are differences in statistical years in different studies which bring obstacle to international comparison. For example, the study of the EU selects the data of 2000 while some countries select the data of several years, such as the United States from 1977 to 1990 and since then adding annual data every year. In Singapore, the data of 1986, 1990, 1995, 2000 and 2001 are selected from 1986 to 2001 and its development of copyright industries is reflected through the comparison of these data.

## 5.1.2 *The Results of Current Studies*

For comparison, this study divides the current results into two categories, one is the results following WIPO's method and the results are provided by WIPO. The other is the results according to other methods, the results are from public reports. The table follows the principles that if there are the data from 2004 to 2006 select them and if there are no such data, use the data close to the years. Some countries did the research on economic contribution of copyright industries only once, and though the further year is not comparable, the table also contains the findings of these countries for an overall knowledge of various countries.



**Table 18: The economic contribution of copyright-based industries**

(WIPO's method)<sup>44</sup>

country	year	Contribution to GDP (%)					Contribution to employment (%)				
		total	core	interdependent	partial	non-dedicated	total	core	interdependent	partial	non-dedicated
Bulgaria	2005	2.81	1.57	0.62	0.09	0.52	4.30	2.29	0.73	0.27	1.0
Jamaica	2005	4.81	1.7	0.74	0.47	1.9	3.03	1.79	0.31	0.23	0.68
Lebanon	2005	4.75	2.53	0.71	0.62	0.89	4.49	2.11	0.73	0.70	0.95
Mexico	2003	4.77	1.55	1.69	0.85	0.68	11.01	3.41	3.65	2.53	1.41
Philippines	1999	4.82	3.50	0.96	0.04	0.29	11.10	8.81	1.4	0.2	0.6
Canada	2004	4.5	3.3				5.55	4.11			
Hungary	2002	6.66	3.96	1.24	0.45	1.00	7.1	4.15	1.25	0.61	1.07
Latvia**	2000	4	2.9	1.1	0.28	0.77	4.40	3.7	0.7	0.44	0.75
Singapore	2001	5.67	2.85	1.76	0.09	0.97	5.80	3.64	1.24	0.18	0.74
US	2004	11.09	6.48	2.13	0.40	2.08	8.53	4.07	2.17	0.26	2.03
	2005	11.12	6.56				8.49	4.03			
Australia	2007	10.30	7.30	2.0	0.40	0.70	8.0	4.97	1.81	0.57	0.65
Croatia	2004	4.27	2.99	0.88	0.32	0.07	4.64	3.22	0.93	0.41	0.08
Romania	2005	5.55	3.55	1.08	0.53	0.39	4.19	2.36	0.58	0.82	0.43
Colombia	2005	3.30	1.90	0.80	0.30	0.40	5.80	1.70	0.70	1.90	1.50
Russia	2004	6.06	2.39	0.76	0.27	2.64	7.30	4.29	0.75	0.56	1.69
Ukraine	2005	2.85	1.54	0.68	0.10	0.54	1.90	1.16	0.46	0.08	0.20
The Netherlands	2005	5.9	4.0	0.4	0.9	0.6	8.8	6.2	0.6	1.1	1.0

\*\*only accounting the economic contribution of the core and interdependent copyright industries

**Table 19: Value-Added by Copyright-Based Industries in Countries or Regions**

Country or Region	Year	Core Copyright Industries		Copyright-Based Industries	
		Value-Added (in billions)	Share of national or regional GDP (%)	Value-Added (in billions)	Share of national or regional GDP
Chile	1997	–	–	–	2.0
UK	1990	17.11	3.6	–	–
	2000	109.20	7.1	–	8.4
Ireland	2000	2.16	2.1	2.59	2.5
France	2000	48.11	3.4	61.84	4.4
Belgium	2000	6.80	2.7	9.78	3.9
Luxembourg	2000	0.55	2.8	0.65	3.3
Denmark	2000	6.52	3.7	8.50	4.8
Finland	2000	4.17	3.2	8.19	6.3
Sweden	2000	10.76	4.4	14.37	5.9
Austria	2000	4.78	2.3	7.94	3.8
Germany	2000	70.98	3.5	102.91	5.1
Greece	2000	1.62	1.3	2.28	1.9
Italy	2000	38.72	3.3	52.35	4.5
Portugal	2000	2.18	1.9	2.51	3.1
Spain	2000	17.22	2.9	24.05	5.1
Hong Kong, China	2001	–	–	46.10	3.8
Jordan	2000	0.04	0.7	–	–
Egypt	2000/1	–	0.1	–	–
Morocco	1999	0.18	0.5	–	–
Tunisia	2000	–	0.6	–	–

<sup>44</sup>The statistics are provided by WIPO.



The value-added in table 19 is calculated in US dollars in Morocco, in euros in Belgium, Denmark, Finland, France, Austria, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain and Sweden, in pounds in Britain in 1990 and in euros in 2000, and in local currency in Hong Kong and Jordan.<sup>45</sup>

## 5.2 The Research in Several Representative Countries

### 5.2.1 The US<sup>46</sup>

In the United States, the first report classified copyright industries into four categories which were: core copyright industries, partial copyright industries, distribution industries and copyright-related industries, in 1990 and the following years until 2004. In 2004 and the subsequent years, the United States adopted the four categories of WIPO in order to be consistent with the international standard.

From the findings, the US is the most developed country on copyright industries now. In 2004, the US industry value-added of copyright industries is 1300.8 million USD, accounting for 11.09% of the US GDP, of which the core copyright industries value-added is 760.5 billion USD accounting for 6.48% of the US GDP. In 2005, the industry value-added of copyright industries is 1388.1 billion USD accounting for 11.12% of the US GDP, of which the core copyright industries value-added is 819.1 million USD accounting for 6.56% of American GDP. Also in 2005, 11.33 million jobs are provided in copyright industries, of which 5.38 million positions are in core copyright industries.

According to the study in the United States, annual growth rate of copyright industries is higher than that of the US GDP in recent decades although the industry classification of national economy has been changed and the classification of copyright industries is adjusted. With the three indexers of industry value-added, export trades and employment contribution, American copyright industries have become the key industry in developing economic growth. At the same time, the report also points out that the positive factors which are the legitimate distribution channels of new technique supported copyright products, a complete copyright legal system as well as strict and effective enforcement have contributed to the development of copyright industries in the United States.

### 5.2.2 The UK<sup>47</sup>

The research system in the United Kingdom is different from that of WIPO and the United States. The concept in the report provided by the Creative Industry Division in the Department for Culture, Media and Sport of the UK is "creative industries" which means a potential industry of creating individual creativity, capacity and talent, wealth and employment through the development and transmission of intellectual property. These industries include advertising, architecture, art and antiques market, crafts, design, fashion design, film and video, interactive leisure software, music, performing arts, publishing, software and computer services, television and radio, etc.

Compared with the "copyright industries" of WIPO, the UK's "creative industries" have the following features:

- (1) The scope of "creative industries" is wider than that of "copyright industries". According to the definition of "creative industries" in the UK, it covers the whole concept of intellectual property. The classification system of "creative industries" is also different from the "copyright industries" of WIPO. In the UK, the national economy is divided into creative industry economy, including culture industries, and other economies. Although UK's "creative industries" are in a broader scope, the national economy industry categories are definitely not less than those of "creative industries" due to different classification systems.

<sup>45</sup>Chile data is from The Copyright-based Industries No.2 Report; data of UK, Ireland, France, Belgium, Luxembourg, Denmark, Finland, Sweden, Austria, Germany, Greece, Italy, Portugal and Spain are from The Contribution of Copyright and Related Rights to the European Economy (based on data from the year 2000); data of Hong Kong is from report of The University of Hong Kong; data of Jordan, Egypt, Morocco and Tunisia are from *Performance of Copyright Industries in Selected Arab Countries*.

<sup>46</sup>Refer to Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy*, supra note.

<sup>47</sup>Staying ahead: the economic performance of the UK's creative industries, [http://www.culture.gov.uk/reference\\_library/publications/3672.aspx/](http://www.culture.gov.uk/reference_library/publications/3672.aspx/)

- (2) The economic contribution indicators of UK's "creative industries" are basically the same as those of WIPO's *Guide*, both including industry added-value, employment and export value. The difference is that the economic data in partial copyright industries is counted as a certain percentage (copyright factors) due to the existence of copyright factors in the WIPO system, but there is no such concept in the creative industries system.
- (3) During the data processing and comparison, the UK's report has done a detailed analysis on the categories of creative industries and their advantages and disadvantages. This is also reflected in the same creative industries research done in Hong Kong. The characteristics of industry research are very clear and data research combines market analysis and countermeasures.

According to the UK's statistical results, the value-added of creative industries is accounting for 7.9% of GDP. From 1997 to 2000, the annual growth rate of creative industries in the UK is 9% and over the same period that of the UK's economy is 2.8%. In 2000, the export value of UK creative industries is 8.7 billion GBP, accounting for 3.3% of the total export value of goods and services. From 1997 to 2000, for the UK creative industries, the average annual growth rate of export value is 13% while for all British services it is 9% and for goods and services the average annual growth rate of comprehensive export value is 5%. In 2001 UK creative industries provide 1.95 million jobs which include 1.15 million jobs within the scope of creative industries and to be estimated as least 800,000 creative jobs outside creative industries. In the UK, creative industries provide jobs from 1.45 million in December 1994 to 1.95 million in December 2001 during which time the average annual growth rate is 5% and the national employment growth rate is 1.5%. According to the data of the Inter-Departmental Business Register (IDBR) in the UK, in 2001 the number of creative industry companies is about 135,000, of which about two-thirds of the companies focus on two areas: software and digital publishing (56000) and music and visual performing arts (33000). The number of creative industry companies accounts for 8% of IDBR-registered enterprises.

### 5.2.3 Canada<sup>48</sup>

The researches in Canada do not directly adopt the four categories classification as WIPO copyright industries. In the Canadian report of 2004, copyright industries are classified into core copyright industries and non-core copyright industries, in which core copyright industries include film and video, radio and television, photography, visual and graphic arts, publishing and literature, advertising, theatre, music, software and database types, etc., and non-core copyright industries include interdependent copyright industries of WIPO's classification, partial copyright industries and non-dedicated supporting industries.

Canada adopts the North American Industrial Classification Standard (NAICS) as its industry classification standard, which differs from WIPO's where Canada has made its mark and notes. As for the data processing of non-core copyright industries, Canada does not adopt the research method of copyright factors but comparison and previous studies, to estimate the non-core value-added accounting for about 35% of total copyright-based industry value-added in 2002. In the choice of the reference year, the 2004 report in Canada has selected more than ten years of continuous annual data.

From the 2004 research report: in 2002 Canadian copyright industries account for 5.4% of the GDP meaning that contribution to the economy exceeds that of agriculture and fisheries. At the same time, the growth rate of copyright industries reaches 6.5% which is almost twice the growth rate of the Canadian economic growth of 3.3% over the same period. In 2002, the copyright industries in Canada provide 780,000 jobs. In the export trade, the largest export growth of Canadian copyright-based industry is in 1998, an increase of 23%, and then it falls gradually. However in 2002 there is still 4% growth. The core copyright industries and software and databases (as well as information services) have become the main driving force of economic growth in Canada.

From the study results, the size of Canadian copyright industries is smaller than that of the United States. For the three major indexes, the economic contribution and the growth rate of copyright industries are lower than that of the United States but with the similar growth trend as the United States. In the 12 years of continuous data comparison, Canada's copyright industries have basically had a relatively stable growth. The report in Canada selects particularly the data of Australia as a comparison. In total, the three economic

<sup>48</sup>Wall Communications Inc. The Economic Contribution of Copyright-Based Industries in Canada: The 2004 Report, WIPO. National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. (WIPO Publication No.624e 2006)

contribution indexes of copyright industries are a little higher than Australia's and lower than the United States'. They maintain the same growth rate of copyright industries as them.

#### 5.2.4 *Singapore*<sup>49</sup>

Since November 2003, Singapore has begun the economic contribution research of copyright industries and it is the first country carrying out this project in Asia.

Singapore selects the statistical data from 1986 to 2001 and reflects deeply its development of copyright industries by comparison of these data. Through the comparative study of Singapore's export value of copyright industries from 1986 to 2001, it has increased from 7.1785 billion US dollars to 30.5147 billion US dollars with an annual average growth rate of 10.1%. The industry value-added of copyright industries increases from 2.4258 billion US dollars in 1986 to 8.7299 billion US dollars in 2001 with an average annual growth rate of 8.9% and Singapore's average annual growth rate of GDP is 7.6% over the same period. In 1986 copyright industries provide jobs for 55421 people and in 2001 for 118617 people, with an average annual increase of 5.2% which is higher than the national employment growth rate of 3.5% over the same period. According to the statistical data of Singapore in 2001, the export value of its copyright industries is 30.5 billion US dollars and the industry value-added is 8.7 billion US dollars accounting for 5.7% of the year's GDP. They also provide jobs for 118600 people accounting for 5.7% of employment in 2001. In addition to the yearly comparison of data and growth rate for the main data above, in the report, Singapore has also provided the corresponding annual data for the small categories under each one in accordance with WIPO's study guide on the classification of copyright industries.

From the research characteristics, the research report of Singapore in 2004 selects a relatively long time span from 1986 to 2001 which is divided further into 1986 to 1990, 1990 to 1995, 1995 to 2000 and 2000 to 2001. In the choice of main reference countries, Singapore chooses the United States as a reference state and in the choice of the countries for data comparison, Singapore selects Austria, Belgium, France, Italy, Sweden, Britain and the EU as reference states.

#### 5.2.5 *European Union*<sup>50</sup>

The EU classifies copyright industries into three categories core: copyright industries, interdependent copyright industries and copyright-related industries. The core copyright industries are industries of creation, production, distribution of works and other copyright objects in which all the activities are used to measure the economic contribution of copyright. Interdependent copyright industries are also called copyright hardware industries which are the equivalent to the "interdependent copyright industries" of WIPO's *Guide*. Copyright-related industries are industries which partially depends on the object protected by copyright.

The EU believes that in the copyright-related industries, copyright content cannot be separated from other parts or its proportion cannot be accurately determined. So the report in the EU only deals with the economic data of core copyright industries and copyright-dependent industries and the copyright-related industries are out of the statistical scope. The EU classifies core copyright industries into publishing and literature, music, theatre products, opera, film and video, photography, visual and graphics arts, radio and television, software and databases, advertising, etc. and it classifies copyright-dependent industries into television, radio, VCR, CD recorders and other equipment, broadcasting, TV commercials and music equipment as well as wholesale and retail, computers and related equipment, musical instruments, photographic camera equipment and other categories.

As for industry classification, the EU adopts several kinds of classification systems, the most important of which is NACE and other classifications such as The European Economic Commission for product classification (CPA2002) and PRODCOM classification. Most of the EU countries adopt the NACE statistical classification but due to the big differences in statistical systems, researchers use directly the original data from the national statistical offices and process the data in accordance with a common framework.

<sup>49</sup>LEO Kah Mun, CHOW Kit Boey, LEE Kee Beng, ONG Chin Huat, LOY Wee Loon: *The Economic Contribution of Copyright-Based Industries in Singapore: The 2004 Report*, WIPO. National Studies on Assessing the Economic Contribution of the Copyright -Based Industries. (WIPO Publication No.624e 2006)

<sup>50</sup>The Contribution of Copyright and Related Rights to the European Economy

In the 2003 economic contribution report of the EU on copyright and the related rights, it lists the related data of 15 EU countries and those of the United States, Canada and Japan. These 15 countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and Britain. The data of these countries will not be stated here one by one.

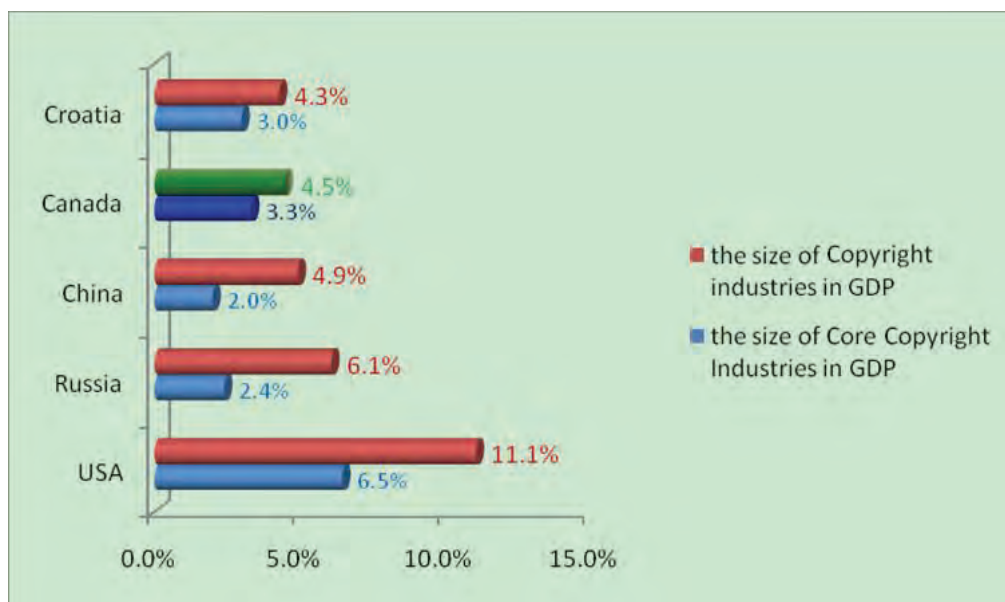
### 5.3 Comparison of Research Results between China and Other Countries

Among the four countries of which the value-added by copyright industries in 2004 has been calculated in accordance with WIPO's formulation, the share of value-added by total copyright industries in national GDP in the United States (11.1%) and Russia (6.1%) is higher than that of China during the same period, while in Canada (4.5%) and in Croatia (4.3%) it is lower. However, the share of value-added by core copyright industries in GDP for the four countries is higher than that of China.

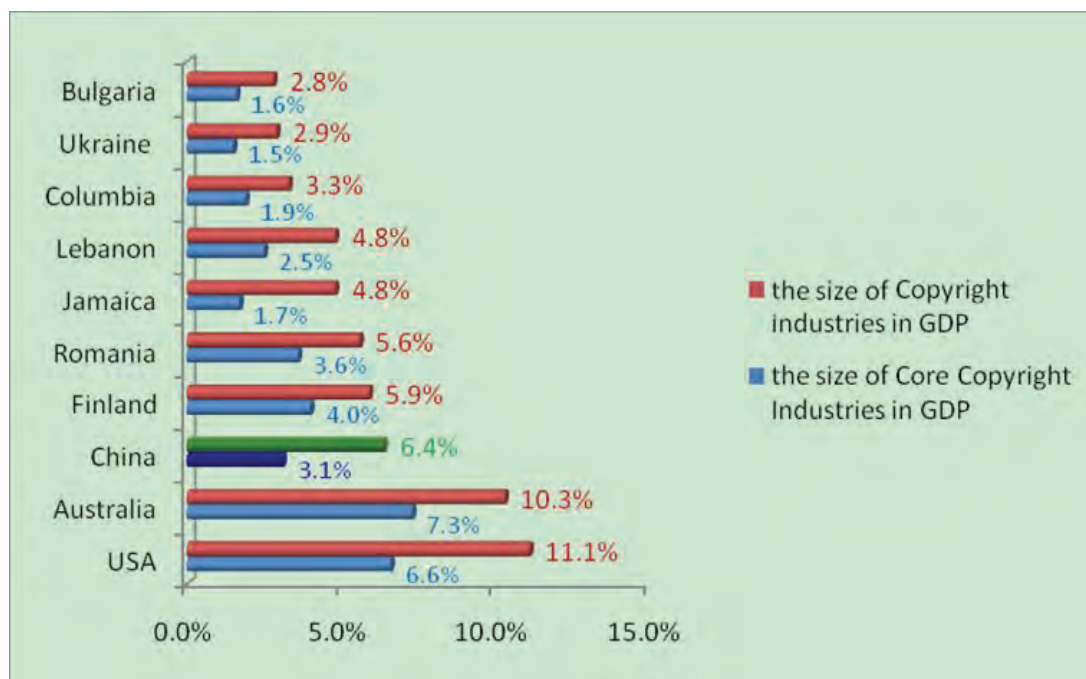
Among the nine countries of which the value-added by copyright industries in 2005 or 2007 has been calculated, the shares of value-added by total copyright industries in national GDP in the United States (11.1%) and Australia (10.3%, 2007) are higher than that of China in 2006, while those of the Netherlands (5.9%), Romania (5.6%), Jamaica (4.8%), Lebanon (4.8%), Columbia (3.3%), Ukraine (2.9%) and Bulgaria (2.8%) are lower than that of China. However, the shares of value-added by core copyright industries in GDP of Australia (7.3%), the United States (6.6%), Finland (4.0%) and Romania (3.6%) are higher than that of China in 2006. Those of Lebanon (2.5%), Columbia (1.9%), Jamaica (1.7%), Bulgaria (1.6%) and Ukraine (1.5%) are lower than China.

It is reasonable to believe that by measuring the value-added, the economic contribution of Chinese total copyright industries is at the front rank among the countries that have conducted such studies. Nonetheless the economic contribution of the core copyright industries is still at a relatively middle level, lower than the average level of the developed countries.

**Diagram 30: Comparisons between Chinese Copyright-Based Industry and Other Countries' in 2004**



**Diagram 31: Comparisons between Chinese Copyright Industries and Other Countries' in 2006**





## Chapter 6. Conclusions

---

This is the first research into the economic contribution of Chinese copyright-based industries. Because of the lack of statistical data, this research analyses just the data of Chinese copyright industries in 2004 and 2006 quantitatively. The research is based on the quantitative and qualitative analysis of some provinces and areas in China. Being pressed by time, cost and experience, this report is not enough in width and depth. The results of this research are not qualitative descriptions. It just reflects the current status, not the trend. Based on this research and the researches done in other countries, we conclude as follows:

### 6.1 An Overview of the Development of Chinese Copyright-Based Industries

#### 6.1.1 *In terms of the proportion, Chinese copyright-based industries have taken shape and copyright has already shown remarkable influence on the national economy.*

In 2004, the value-added by Chinese copyright-based industries was 788.4 billion RMB, accounting for 4.9% of GDP. The number of employment was 6.16 million, accounting for 5.6% of the total national employed population. The export reached 92.2 billion USD, accounting for 15.5% of the total national export.

In 2006, the value-added of Chinese copyright-based industries was 1319.7 billion RMB, accounting for 6.4% of GDP. The number of employment was 7.63 million, accounting for 6.5% of the total national employed population. The export reached 149.3 billion USD, accounting for 15.4% of the total national export.

As to the proportion of industry value-added to national GDP, only 3 of the 21 sectors in the national economy enjoy a higher proportion than the copyright-based industry in 2006: manufacturing (33.6%), wholesale and retail (7.3%) and agriculture (6.6%). The proportions of the other 18 sectors to GDP are all lower than that of the copyright-based industry. Compared with the core copyright industry, 10 sectors enjoyed higher proportion, including manufacturing, wholesale and retail, agriculture, transport, storage and posting (5.9%), mining (5.7%), construction industry (5.6%), real estate (4.6%), financial (4.0%), power, gas and water supply (3.8%), public and social administration (3.6%), livestock (3.1%); the proportions of the other 10 sectors, such as education, accommodation and catering, are lower than that of the core copyright industry.

#### 6.1.2 *In terms of the growth rate, the annual growth rate of value-added of copyright-based industries is higher than that of GDP, copyright-based industries are crucial to economic growth.*

Due to the lack of detailed statistics, this study has only conducted quantitative analysis on the economic contribution of copyright industries in 2004 and 2006. Therefore, the results cannot reflect the annual growth rate of the economic contribution of Chinese copyright-based industries accurately. However, all studies done by China and other countries have proved that copyright industries are playing an important role in economic growth.

According to statistical data, Chinese software, printing, computer and home video equipment industries have developed dramatically during the years 2004 and 2006. The average annual growth rate of copyright industries value-added of the United States from 2003 to 2005 is 8.65%, the average annual growth rate of GDP is 3.87%. The average annual growth rate of copyright industries value-added of Canada from 1991 to 2002 is 6.46%, the average annual growth rate of GDP is 3.27%. The average annual growth rate of copyright industries value-added of Singapore from 1986 to 2001 is 8.9%, the average annual growth rate of GDP is 7.6%.

These countries' annual growth rate of copyright-based industry is much higher than that of the GDP which shows that the copyright industries, especially the creative activities, new technology and software services are one of the most active area in economic activities.



### **6.1.3** *Compared with other countries, the contribution of Chinese total copyright-based industries to the national economy is relatively high but the core copyright industries should make more progress.*

Based on the framework of WIPO, 12 countries have been surveyed for the increase in the value-added of copyright-based industry in the same year or adjacent years. The calculation result shows that three of them enjoy higher proportions of overall copyright-based industry value-added in national GDP than China does. They are the US (11.1% in both 2004 and 2005 which is higher than that of China in both 2004 and 2006), Australia (10.3% in 2007 which is higher than that of China in 2006) and Russia (6.1% in 2004 which is higher than that of China in 2004). Other countries, Canada (4.5% in 2004), the Netherlands (5.9% in 2005) and the other developed countries have lower proportions than China. However, seven countries hold a higher proportion of core copyright industry value-added than China does in the corresponding period. And five countries were lower than of China.

The results indicate that, by standard of the industry value-added, the economic contribution of China's overall copyright-based industry has been ranking at the top of the countries investigated. However, China's core copyright industry's economic contribution remains at the medium level which is lower than that of the developed countries.

At the same time the copyright factor is low in some of the copyright-based industries such as garment, textile and shoes, crafts, furniture, household ware, pottery and porcelain, glass industries, etc. That means that these industries generate low economic contribution due to the copyright. The survey shows that most of these industries are labour-intensive enterprises which help a lot in increasing employment but many of them just make copies or imitate each other with low creative consciousness. What's more, many enterprises are still high energy consuming and high pollution "manufacturers" with low added value. Both their awareness and ability to increase product value-added by way of creation are to be promoted.

## **6.2** **Developing the Environment for Chinese Copyright-Based industries**

### **6.2.1** *China has established a relatively complete copyright protection system which lays foundation for the development of the copyright-based industry.*

With the copyright law as the core, relative regulations and international conventions as the complement, China has developed a modern copyright protection system after 30 years of continuous hard work, which is suitable to both Chinese situations and international rules. At the same time, the executing of China copyright law and the service system has been increasing, and the social copyright awareness is also developing. As commented by *People's Daily* when the China Copyright Law was revised in 2001: It is developing from a law that is strange to people to one that attracts intensive social concern; from a law that was with planned economy features to one that is both suitable to the development of social markets and technology, and linked up with the international conventions. The set up and developing of the copyright protection system ensure the creation and transmission of literature, artistic and scientific works, laying legal foundation for the development of copyright-based industry.

### **6.2.2** *Governments of various levels take positive measures to promote the development of copyright-based industry, still more guidance and supports are needed.*

In June of 2008, the Chinese government has issued the *Outline of the National Intellectual Property Strategy* which proposed to "Assist the development of copyright-related industries such as the press and publication, radio, film, television, literature and the arts, cultural entertainment, advertising design, arts and crafts, computer software and information networks. We need to support the creation of works with clear national features and characteristics of the times. We need to assist in the creation of excellent cultural works that have difficulties in market competition." After that, local governments have also issued a series of copyright outlines and policies. However, the survey has found that local governments still have no integrated policies which can comprehensively use all means, such as finance and investment, to promote the development of the copyright-based industry. They also lack the enthusiasm for promoting creativity. As a result, more guidance and supports are needed for the copyright-based industry.

### **6.2.3 *Partial copyright industry staff has low consciousness of copyright and there are serious pirate situations which have affected the development of the copyright-based industry.***

Survey shows that the creators and transmitters in core copyright industry are highly aware of the copyright protection while partial copyright industry staff has low consciousness of copyright. When asked relative questions, many of them cannot tell what is copyright and have no idea that the products they are producing are related to copyright. Also those people are not aware of the protection of copyright and show little concern over pirates. These phenomena have choked the creativity of enterprises and affected the development of the copyright-based industry.

## **6.3 Suggestions for Promoting the Development of Chinese Copyright-Based Industries**

How to quickly and better develop the copyright-based industry is a significant issue. We cannot get perfect and practical conclusions only from this research. Still we can generalise several suggestions as follows:

### **6.3.1 *Improve Statistical System; Establish Professional Classification of Copyright-Based Industries***

The major difficulty of this research is the industry classification and insufficient data resource. Chinese GDP has been using the method of three-digit level classifications. The first level is the three industries; the second and third levels are based on the sectors and divisions adopted in the national economy. This kind of classification cannot meet the needs of copyright research. Only in 2004, the economic census year, GDP has used the method of four-digit level classifications which enables the scientific research of copyright-based industries. However, the economic census is held every five years and this does not meet the statistic requirement for research of copyright-based industries.

For the same reason, the State Statistical Bureau co-operated with relative departments in 2006 and set up the *Culture and Relative Industry Classification*, a derivative classification of *Industrial classification for national economic activities* to improve the cultural industry's statistical work and regulate the range and scope of cultural and relative industries.

Though there are some overlaps between copyright-based industries and cultural industries, differences do exist. It is still important to do statistical research into copyright-based industries as has been illustrated in the former part of this research. Consequently, it is necessary to establish a derivative classification of copyright-based industries in *Industrial classification for national economic activities* to define, regulate our country's copyright-based industries and lay foundations for its statistical research.

### **6.3.2 *Strengthen Propaganda and Education; Heighten Staff's Awareness of Copyright***

In the research of industry factors in partial copyright industries, it was established that most employees are not clear about the protection target, range and methods of copyright. These enterprises cannot well protect their own rights and at the same time, they may easily violate the rights of others. We can say that the protection of copyright has not been a mayor concern in the partial copyright industries, especially in the medium or small sized enterprises. Consequently the consciousness and knowledge of copyright is still to be improved.

After 30 years of continuous hard work, China has developed a modern copyright protection system which is suitable for both Chinese situations and international rules. However, we still have not formed a copyright culture to respect knowledge, advocate creativity and abide by the law. The copyright protection system is not yet familiar to the common people to use it to protect their own rights and to respect others'. All sectors of the society still have to endeavour to foster common people's legal awareness and disseminate the copyright knowledge.

### **6.3.3 Formulate Copyright Policies; Promote the Coordinated Development of Regional Economy**

Research shows that, with broad terrain and glorious history, different regions in China have unique copyright features. Some regions have made use of copyright to promote the development of local economy such as home textiles industry in Nantong and ceramics industry in Dehua of the Fujian province. However, most regions have not established local copyright policies and the positive functions of copyright-based industry on promoting the economy with local characteristics, the restructuring and optimisation of industry structures have not been sufficiently exerted yet. It is suggested that local government, based on their own features and advantages, indooors the copyright supporting policies to promote coordinated development of regional economy.

## Appendix 1 The Specific Classification of Copyright-based Industries in China

**Table 20: The Specific Classification of Core Copyright Industries Corresponding to the National Economy Industry Classification**

Main groups	Subgroups	UN product classification code	Chinese industry classification four-digit code industry and its brief introduction
Work of art	Writer	9214	9010 – Artistic creation and performance
	Translator	7499	7494 – Office services (including translation)
	Newspaper publication	2212	8822 – Publication of newspapers
	News agency, etc.	9220	8810 – Press
	Magazine/Journals publication	2212	8823 – Publication of periodicals
	Book publication	2211	8821 – Publication of books
	Digital publication		Including online journal, digital books, games publication, news publication website, cell phone publication, etc.
	Greeting card and map, directory and other printed papers	2219	8829 – Other publications
	Sample before, in and after printing of books, magazines, newspapers and advertisements	2221	2311 – Printing of books, newspaper and periodicals 2312 – Printing of notebooks 2319 – Printing of packaging and upholstery
		2222	2320 – Binding and other services of printing
	Wholesale and retail of newspaper and literary works (Bookstore and newsstand)	5139	6343 – Wholesale of books 6344 – Wholesale of newspapers and periodicals
5239		6543 – Retail of books 6544 – Retail of newspapers and periodicals	
Library	9231	9031 – Library	

**Table 20: The Specific Classification of Core Copyright Industries Corresponding to the National Economy Industry Classification (continued)**

Music, opera, folk arts, dance and acrobatics	Melody writer, song writer, adapter, dancing guider, director, actors and other personnel	9214 9219 9249	9010 – Artistic creation and performance 9070 – Mass cultural activities 9080 – Economic agent for culture and arts 9210 – Indoor recreation activities 9290 – Other entertainment activities
	Production and manufacture of music and sound recording product	2230	8824 – Publication of audio and video products 8825 – Publication of electronic publications 8940 – Production of audio and video products 2330 – Reproduction of recorded media
	Wholesale and retail of music and sound recording product (sale and rent)	5139 5233 7130	6345 – Wholesale of recorded music and videos 6545 – Retail of recorded music, videos and electronic publications 7321 – Leasing of books and audio and video products
	Representation of art and writing	9214	9010 – Artistic creation and performance
	Acting and relevant agency (booking and ticket office)	9214	9020 – Artistic performance sites
	Film and video tape	Play writer, director and actor	9214
Making and publishing of film and video tape		9211	8931 – Motion picture and video production and distribution
Film projection		9212	8932 – Motion picture exhibition
Rent and sale of video tape, including program ordering		7130 9211	7321 – Leasing of books and audio and video products
Relevant services		2230	2330 – Reproduction of recorded media
Radio and television	Production and broadcast of radio and television	9213	8910 – Radio 8920 – Television
	Transferring of cable television	6420	6031 – Transmission service of cable casting and cable television
	Transferring of satellite television	6420	6040 – Transmission service of satellite television
	Relevant services	9213	6032 – Transmission service of broadcasting and television
Photography	Photography	7494	8220 – Photography and enlarging-print services

**Table 20: The Specific Classification of Core Copyright Industries Corresponding to the National Economy Industry Classification (continued)**

Software and data base	Planning, programming and designing	7221 7229	621 – Software industries
	Wholesale and retail of pre-installed software (commercial program, educational program, etc.)	5151	6375 – Wholesale of computers and computer peripheral equipment 6572 – Retail of computers and computer peripheral equipment
	Treatment and publication of database	7240 7230	6020 – Internet information services 6190 – Other computer services 6019 – Other services of telegraphy 6120 – Data processing
Artistic and architectural design, graph and model work	Artistic and architectural design	9214	9010 – Artistic creation and performance 3133 – Processing of construction stone 6346 – Wholesale of jewellery, crafts and collections 6547 – Retail of crafts and collections 7672 – Engineering survey and design G – Architecture (including design of architectural work)
	Graph and model work		7640 – Mapping services 7672 – Engineering survey 7673 – Planning management 7690 – Other professional technical services (the above types including graph and model work for project design drawing, product design drawing, maps, schematic diagrams, etc.)
Advertising service	Advertising agency, purchasing services (not including advertising publication fee)	7430	7440 – Advertising
Copyright collective management and services	Copyright collective management and services	9112	



**Table 21: The Specific Classification of Core Copyright Industries Corresponding to Customs Analysis Classification ( Four-Digit Code)**

Main groups	Code	Description
News and literary work	4820	Paper or paper made register book, account book, notebook, ordering book, receipt book, letter book, word pad, diary book and similar things, exercise book, blotter book, loose cover(loose-leaf and non loose-leaf), file folder, dossier, multiple business form paper, book with carbon paper in leaf and other office supplies; paper or paper made sample sheet, album and book cover. The 8-digit code of this category is: 48209000 paper or other stationary made of cardboard; book cover
	4901	Books, brochure, leaflet and similar printed paper, whether single sheet or not
	4902	Newspapers, magazines and journals, whether having pictures or advertising materials or not
	4903	Children picture books, drawing and painting books
	4905	Various printed maps, hydrographic chart and similar marks, including atlas, wall map, contour map, globe and sphere
	4909	Postcard with pictures printed on; card with personal greeting, congratulation, printed message, whether with picture, envelop and trimming or not
	4910	Various printed calendar, including calendar core
	4911	Other press work, including printed pictures and photos
Music and opera work	4904	Original and printed copy of music book, whether binding, with picture printed or not
Film and video tape	3706	Exposed and washed filmstrip, whether added or only with sound channel
	8523	Disk, tape, solid state non-volatile store, "smart card" and other media used for recording sound and other information, no matter whether it has been recorded or not, including master splice and master tape used for copying, but not including the product in Chapter 37 (photographic and cinematographic goods)
Photography	3705	Exposed and washed photographic hard and soft film, except the filmstrip with sound channel
Software and data base	9803	Computer software (only used for exit, not including software integrated with product curing and integration)
Visual and drawing art	4906	Not including manual script of designing papers for architecture, engineering, industry, commerce, topography or similar use. The duplicate of the above mentioned works by way of photo sensitive paper or carbon paper shall also be excluded. Paste-up and similar decorate panels
	9701	Oil painting, pastel and other hand-painting but excepts drawings with a hand-painted and hand-painted decoration of the products or items 4906 (hand-painted architectural, engineering, industrial, commercial, topographical or similar usage of the original design drawings; manuscripts; using sensitive photographic paper copy or transcription of the above items with the carbon paper copy); collage and similar decorative plate
	9702	Original copy of engraving, art prints, lithograph
	9703	Sculpture original copy made of various materials

**Table 22: The Specific Classification of Interdependent Copyright Industries Corresponding to National Economy Industry Classification**

Main groups	UN product classification code	Chinese industry classification four-digit code industry and its brief introduction
TV sets, radio, VCRs, CD players, DVD players, cassette players, electronic game equipment, and other similar equipment	3230	4031 – Manufacture of radio and television programs and transmitting equipment 4032 – Manufacturing of broadcasting and TV receiving equipments and instruments 4039 – Manufacturing of applied TV equipments and other broadcasting and TV equipments 4071 – Manufacturing of home video equipments 4072 – Manufacturing of home video equipments
	5139	4013 – Manufacture of communication terminal device 2452 – Manufacture of games and indoor games equipment
	5233	6349 – Wholesale of other cultural goods
	7130	6374 – Wholesale of home appliance 6376 – Wholesale of communication, broadcasting and television equipments 6571 – Retail of home electronic equipment 8313 – Repair of home appliance
Computer and equipment	3000	4041 – Manufacturing of whole machine of computer 4042 – Manufacturing of computer network equipment 4043 – Manufacturing of computer peripheral equipment 6375 – Wholesale of computer, software and computer peripheral equipment
	5151	6572 – Retail of computer, software and computer peripheral equipment
	7123	7314 – Leasing of computer and communication equipments 6110 – Computer system services 6130 – Repair of computers
Musical instruments	3692	2431 – Manufacturing of Chinese musical instruments 2432 – Manufacturing of western musical instruments 2433 – Manufacturing of electronic musical instruments 2439 – Manufacturing of other musical instruments and accessories
	5139	6349 – Wholesale of other cultural articles
	5233	6549 – Retail of other cultural articles
		7329 – Leasing of other cultural and daily-use products

**Table 22: The Specific Classification of Interdependent Copyright Industries Corresponding to National Economy Industry Classification (continued)**

Photography	3320	4151 – Manufacturing of film machinery 4152 – Manufacturing of epidiascope and projecting equipments 4153 – Manufacturing of camera and related apparatus
	5139	2665 – Manufacturing of information chemical productions
	5239	6349 – Wholesale of other cultural articles 6379 – Wholesale of other machinery equipments and electronic products
	7129	6548 – Retail of photographic apparatus 7329 – Leasing of other cultural and daily-use products 8319 – Repair of other daily-use products
	3000	4154 – Manufacturing of copying and offsetting equipments
	5159	8312 – Repair of office equipments 3642 – Manufacturing of printing equipments 6379 – Wholesale of other machinery equipments and electronic products 6579 – Retail of other electronic productions
Blank recording material	2429	2665 – Manufacturing of information chemical productions
	5152	6374 – Wholesale of home appliance
	5233	
Paper	2101	2221 – Manufacturing of machine-made paper and paperboard 2222 – Manufacturing of hand-made paper 2223 – Manufacturing of processed paper 2239 – Manufacturing of other paper 6391 – Recovery and wholesale of regeneration material
	5149	6341 – Wholesale of stationery
	5239	6541 – Retail of stationery

**Table 23: The Specific Classification of Interdependent Copyright Industries Corresponding to Customs Analysis Classification**

Main groups	Code	Description
Television, radio, video camera, CD player, DVD player, cassette player, video game device and similar devices	8519	Sound recording or replaying equipment
	8520	Cassette recorder and other sound recording equipment, whether with sound replaying device or not
	8521	Video signal recording or replaying equipment, whether equipped with high frequency regulator or not
	8525	Radio broadcast, television transmitting device, whether equipped with receiving device or sound recording or not, replaying device; television video camera, digital camera and video camcorder
	8527	Radio broadcast receiving device, whether assembled in the same cabinet with sound recording or not, replaying device or clock
	8528	Television receiving device, whether equipped with radio or not, sound and picture recording or replaying device; video monitor and projector
	8529	Used specifically or mainly items 8528 and equipment or device parts listed in item 8528

**Table 23: The Specific Classification of Interdependent Copyright Industries Corresponding to Customs Analysis Classification (continued)**

Computer and relevant devices	8471	<p>Automatic data processing equipment and their components; other items unlisted, magnetic or optical readers, machines transferring the data in code form to the data recording media and machines processing these data</p> <p>The 8-digit codes of this category are:</p> <p>84711000 analog or mix auto-processor              84713000 weight≤10kg portable digital automatic processor              84714110 super, large, mid-sized digital automatic processor              84714120 mini digital automatic processors              84714140 other micro digital automatic processors              84714190 unlisted digital automatic processing units              84714910 systematic supercomputer, large computer and mid-sized computer              84714920 systematic minicomputer              84714940 systematic microcomputer              84714991 systematic distributed industrial processing control units              84715010 processing parts of supercomputer, large computer and mid-sized computer              84715020 processing parts of minicomputer              84715040 processing parts of microcomputer              84715090 other digital processing units              84716011 LCD              84716012 CRT              84716019 other displays              84716031 stylus printer              84716032 laser printer              84716033 ink printer              84716039 other printers              84716040 supercomputer, large computer, mid-sized computer and micro-computer              84716050 scanner              84716060 digitizer              84716071 keyboard              84716072 mouse              84716090 other input or output parts              84717010 hard disk drive              84717020 floppy disk              84717030 optical driver              84717090 other storage parts              84718010 HUB              84718020 Router              84718090 unlisted automatic processing units and parts              84719000 other magnetic or optic reader and processor</p>
-------------------------------	------	---

**Table 23: The Specific Classification of Interdependent Copyright Industries Corresponding to Customs Analysis Classification (continued)**

Musical instruments	9201	Piano, including automatic pianos; harpsichords and other keyboard stringed instruments
	9202	Other stringed instruments (for example, guitar, violin, harp)
	9203	Keyboard organ; reed organ, and similar keyboard instruments with free metal reeds
	9204	Accordions and similar instruments: harmonica
	9205	Other aerophones
	9206	Percussion instruments (for example, drums, xylophone, cymbals, cymbals, castanets, horn gourd)
	9207	Musical instrument with its sound generated or expanded by electricity (for example, electric organ, electric guitar, electric accordion)
	9208	Music box, organ in amusement park, hand organ, mechanical songbirds, musical saw and other musical instruments unlisted in other items of this chapter; a variety of media induced audio device, whistle, mouth blown horn acoustic signaling device
	9209	Musical instrument parts (for example, mechanical devices of music box), accessories (for example, cards, disk and tape volumes used for mechanical musical instruments); metronome, tuning fork and various tuning pipe
Camera and movie photographic equipment	3701	Unexposed photographic light-sensitive hard film and flat soft film, made from any material except paper, cardboard and textile; a light-sensitive flat soft film of unexposed polaroid film, whether sub-packaged or not
	3702	Unexposed photographic light-sensitive film in rolls, made from any material except paper, cardboard and textiles; unexposed polaroid film in rolls
	3703	Unexposed photographic light-sensitive paper, cardboard and textiles
	3704	Have been exposed but unwashed photographic hard and soft film, paper, cardboard and textiles
	3707	Photographic chemical agents (not including glazing paint, glue, adhesives and similar agents); photographic non-blended products, rationed or retail packing, rationed or retail packing available for immediate use:
	9006	Camera (except movie camera); photographic flash devices and flash bulbs, but except discharge lamp of items 8539
	9007	Movie camera, projector, whether with sound recording or replaying device or not
	9008	Video projector, but except the one used for movie; pictures(except movie picture) enlarger and microfilm machine
	9010	Camera (including film) suction device and equipment unlisted in other items of this chapter; negative display; screens and other projection screen
	9011	Compound optical microscopes, including those for microphotography, micro film and micro-projection
Photocopiers	3707	Photographic chemical agents (not including glazing paint, glue, adhesives and similar agents); photographic non-blended products, rationed or retail packing, rationed or retail packing available for immediate use:
	8442	Machines, apparatus and equipment used for making plates (except machine tools from items 84.56 to 84.65); printing edition (sheet), roller and other printing components; made for printing (for example, planning, embossed, or polished) board ( sheet), roller and slab
	8443	Machines using the printing edition (sheet), roller and other printing component of item 84.42; other printers, copiers and fax machines, whether or not combined; parts and accessories of the machines above
	8469	Typewriter, except printer of item 84.43, word processor
	8472	Other office machines (for example, gelatin duplicator, copy graph, address machine, automatic pay machines, coin sorter, counting and packing machines, pencil sharpener, puncher or stapler)
	9009	photosensitive copying equipment with optical system or contact type and heat-sensitive copying equipment,



**Table 23: The Specific Classification of Interdependent Copyright Industries Corresponding to Customs Analysis Classification (continued)**

Blank recording media	8523	Unrecorded media made for audio dubbing (recording) but except product of Chapter 37
Papers	4801	Newsprints in rolls or sheets
	4802	Writing, printing or similar purposes without the coating of paper and paperboard, not perforated punched paperboard cardboard, rectangular (including square) in rolls or sheets, any size, but except paper of items 4801 or 4803; hand-made paper and paperboard vegetable parchment, greaseproof paper, tracing paper, translucent paper and other high-gloss transparent or translucent paper in rolls or sheets
	4806	The 8-digit code of this category: 48063000 tracing paper
	4810	Paper and paperboard in rectangular (including square) of any size, single-sided or double-sided coated kaolin or other inorganic substances (whether or not with adhesive), but without paint coating, whether or not stained, finished or printed  The 8-digit code of this category: 48101300 writing or printing paper in volume and paperboard, machinery fibre≤10% 48101400 writing paper, machinery fibre≤10% 48101900 other writing or printing paper, machinery fibre≤10% 48102200 inorganic writing and printing light paper, machinery fibre>10% 48102900 other inorganic writing and printing paper, machinery fibre>10%
	4811	Paper, paperboard, cellulose wadding and cellulose fiber web papers coated, dipping, covered, dyed, finished, or printed in rectangular (including square) of any size, but except goods of item 48.03,48.09 or 48.10  The 8-digit code of this category: 48115110 double resin-coated paper, 150g/m <sup>2</sup>
	4817	Envelopes, letter card, plain postcards and communication card made from paper and paperboard; boxes, bags, and clip made of paper or paperboard, containing all kinds of paper stationery
	5901	The 8-digit code of this category: 59011010 cotton or linen fabrics plated with gum or starch used for book covers 59011020 chemical fibre plated with gum or starch used for book covers 59011090 other fibre plated with gum or starch used for book covers 59019010 canvas for painting 59019091 starching textiles made of cotton or hemp used for canvas or interlinings of hats  59019092 starching textiles made of chemical fibre used for canvas or interlinings of hats  59019099 starching textiles made of other fibre used for canvas or interlinings of hats

**Table 24: The Classification of Partial Copyright Industries Corresponding to the National Industries Classification Standards**

Major groups	UN industrial classification code	4-digit code industries in China's industrial classification and brief introduction	
Apparel, textiles and footwear	1810	1711 – Spinning and weaving of cotton and chemical fibers	
	1721	1712 – Printing and dyeing of cotton and chemical fibers	
	1920	1722 – Spinning and weaving of wool	
	5131	1723 – Printing, dyeing and refining of wool	
	5232	1730	1730 – Spinning and weaving of ramee, flax and other hemps
		1742	1742 – Processing of silk waste and silk
		1743	1743 – Printing, dyeing and refining of silk
		1751	1751 – Manufacturing of cotton and chemical fiber products
		1752	1752 – Manufacturing of woolen products
		1753	1753 – Manufacturing of jute, ambarly and greengage textile
		1754	1754 – Manufacturing of silk products
		1757	1757 – Manufacturing of nonwoven fabrics
		1761	1761 – Manufacturing of knitted & crocheted products of cotton & chemical fibers
		1762	1762 – Manufacturing of knitted & crocheted products of wool
		1763	1763 – Manufacturing of knitted & crocheted products of silk
		1769	1769 – Manufacturing of other knitted & crocheted products
		1810	1810 – Manufacturing of clothes
		1820	1820 – Manufacturing of textile fabric shoes
		1830	1830 – Manufacturing of hats
		1921	1921 – Manufacturing of leather shoes
		1922	1922 – Manufacturing of leather clothes
		1924	1924 – Manufacturing of leather gloves and leather accessories
		1931	1931 – Tanning and processing of fur
		1932	1932 – Processing of fur clothes
		1942	1942 – Processing of feather (down) products
		2960	2960 – Manufacturing of rubber boots
		3081	3081 – Manufacturing of plastic shoes
		6331	6331 – Wholesale of textile, hosiery and material
		6332	6332 – Wholesale of apparel
		6333	6333 – Wholesale of footwear and hats
		6531	6531 – Retail of textile fabric and hosiery
		6532	6532 – Retail of apparel
	6533	6533 – Retail of shoes and hats	

**Table 24: The Classification of Partial Copyright Industries Corresponding to the National Industries Classification Standards (continued)**

Jewellery and coins	3691	4218 – Manufacturing of jewellery and related articles
	5139	3491 – Manufacturing of mint and laboratory articles made by noble metal
	5239	6346 – Wholesale of jewellery, crafts and collections 6547 – Retail of crafts and collections 6546 – Retail of jewellery
Other crafts	9199	4211 – Manufacturing of sculpture craft works
	5239	4212 – Manufacturing of metal craft works 4213 – Manufacturing of lacquer works 4214 – Manufacturing of flower painting craft works 4215 – Manufacturing of woven craft works made of natural plant fiber 4216 – Manufacturing of drawn work and embroidery craft works 4218 – Manufacturing of jewellery and related articles 4219 – Manufacturing of other crafts 4221 – Manufacturing of mirrors and other similar productions 4229 – Manufacturing of other daily-use articles 6346 – Wholesale of jewellery, crafts and collections 6547 – Retail of crafts and collections
	3610	2110 – Manufacturing of wooden furniture
	5139	2120 – Manufacturing of bamboo and cane furniture
	7130	2130 – Manufacturing of metal furniture 2140 – Manufacturing of plastic furniture 2190 – Manufacturing of other furniture 6339 – Wholesale of other household goods 6582 – Retail of furniture

**Table 24: The Classification of Partial Copyright Industries Corresponding to the National Industries Classification Standards (continued)**

Family articles, ceramics and glass	2610	203 – Manufacturing of woodwork
	173	3082 – Manufacturing of daily-use plastic goods
	2029	3141 – Manufacturing of flat glass
	2899	3142 – Manufacturing of technical glass
		3143 – Manufacturing of optical glass
		3144 – Manufacturing of glass instruments
	5139	3145 – Manufacturing of daily-use glass products and glass containers
	5233	3146 – Manufacturing of heat-preserving glass receptacles
		3147 – Manufacturing of glass fiber and its products
		3148 – Manufacturing of glass-fiber-intensified plastic products
		3149 – Manufacturing of other glass products
		3151 – Manufacturing of sanitation ceramics
		3152 – Manufacturing of special ceramics
		3153 – Manufacturing of daily-used ceramics
		3159 – Manufacturing of ceramics for gardening, lay-out and others
		3132 – Manufacturing of construction ceramics
		3472 – Manufacturing of enamel sanitary ware
3479 – Manufacturing of enamel commodity and other enamel products		
348 – Manufacturing of daily-use products made of stainless steel and other metal		
3972 – Manufacturing of lighting equipments		
6334 – Wholesale of kitchen and washroom appliance and various household supplies		
6339 – Wholesale of other household goods		
6539 – Retail of other household goods		
Wallpaper and carpet	1722	4217 – Manufacturing of carpets and tapestries
	21	2239 – Manufacturing of other paper
	5239	6339 – Wholesale of other household goods
		6346 – Wholesale of jewellery, crafts and collections
Toys and game facilities	3694	2440 – Manufacturing of toys
	5139	2451 – Manufacturing of equipments for open amusement park
	5239	2452 – Manufacturing of game articles and indoor-game apparatus
		6349 – Wholesale of other cultural articles
		6549 – Retail of other cultural articles
Construction, project and investigation	7421	7421 – Construction business
Interior decoration and design	7499	4900 – Building decoration
Museums	9232	9050 – Museum
		9060 – Martyrs' cemetery and memorial museum

Note: Among the four-digit industrial categories of partial copyright industries, some subgroups are not quite related to copyright such as the subgroups in apparel, textiles, glass and ceramics. However, due to the limitation of statistics (some statistics cannot be divided precisely) and for the comparison with other countries, this study does not exclude these subgroups but we have taken full consideration of this when measuring the copyright factors, for example the copyright factor of apparel is only 0.4% and only 0.3% for glass and ceramics.

**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs**

General industrial groups	Code	Brief introduction
clothing, textile, shoes and hats	3926	other plastic products and products made of other materials listed in 3901 to 3914: clothes and adornments made of leather with the 8-digit code group which is 39262000 in this classification
	4203	clothes and adornments made of leather or processed leather
	4205	other products made of leather or processed leather
	4303	clothing, accessories and other products made of furriery
	4304	products made of man-made furriery
	5111	machine-woven fabrics made of carding wool or other carding fur
	5112	machine-woven fabrics made of combing wool or other combing fur
	5113	machine-woven fabrics made of bristle or horse hair
	5208	machine-woven cotton fabrics, 85% cotton content or above by weight, less than 200 grams per square meter
	5209	machine-woven cotton fabrics, 85% cotton content or above by weight, more than 200 grams per square meter
	5210	machine-woven cotton fabrics, mixed with chemical fabrics, less than 85% cotton content by weight, less than 200 grams per square meter
	5211	machine-woven cotton fabrics, mixed with chemical fabrics, less than 85% cotton content by weight, more than 200 grams per square meter
	5212	other machine-woven fabrics
	5309	machine-woven linen fabrics
	5310	machine-woven fabrics using jute or other textile bast fiber listed in item 5303
	5311	machine-woven fabrics using other natural textile fiber; machine-woven fabrics using paper yarn
	5407	machine-woven filament-yarn fabrics with synthetic fiber, that is machine-woven fabrics using materials listed in item 5404
	5408	machine-woven filament-yarn fabrics with man-made fiber, including machine-woven fabrics using materials listed in item 5405
	5512	machine-woven fabrics with short synthetic fiber, 85% synthetic fiber content or above by weight
	5513	machine-woven fabrics with short synthetic fiber, less than 85% synthetic fiber content by weight, mixed with cotton, less than 170 grams per square meter
	5514	machine-woven fabrics with short synthetic fiber, less than 85% synthetic fiber content by weight, mixed with cotton, more than 170 grams per square meter
	5515	other machine-woven fabrics using short synthetic fiber
	5516	machine-woven fabrics using short man-made fiber
	5602	felting, no matter whether it is macerated, spread, enveloped, laminated or not
	5603	non-woven fabrics, no matter whether it is macerated, spread, enveloped, laminated or not
	5801	napped machine-woven fabrics and machine-woven chenille fabrics, excluding the fabrics listed in items 5802 and 5806
	5802	towel woven and related terry woven fabrics, excluding narrow fabrics listed in item 5806; tufted fabrics, excluding products listed in item 5703
	5803	leno, excluding narrow fabrics listed in item 5806



**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

clothing, textile, shoes and hats (continued)	5804	tulle grenadine and other mesh fabrics, excluding machine-woven fabrics, knitted fabrics and crochet fabrics; coiling, strip or patterned lace, excluding the fabrics listed in items 6002 to 6006
	5805	Gobelin, Frend, Bovet and other hand-woven decorative carpet of the related pattern as well as hand-embroidered appliqué decorative carpet (e. g. small stitches and cross-stitch), no matter whether it is ready-made or not
	5806	narrow machine-woven fabrics, excluding the products listed in item 5807; glued narrow fabrics with warp yarn but without weft yarn (strings to bundle piece goods)
	5906	textile processed with rubber, excluding products listed in item 5902
	5907	textile macerated, spread or enveloped with other materials; ready-painted canvas used as stage and photographic settings or in other similar places
	6001	knitted or crocheted napped fabrics, including long pile fabrics and terry fabrics
	6002	knitted or crocheted fabrics, less than 30 centimeters in width, 5% or above in elastomeric yarn or rubber thread in weight, excluding products listed in item 6001
	6003	knitted or crocheted fabrics, less than 30 centimeters in width, below 5% in elastomeric yarn or rubber thread in weight, excluding products listed in items 6001 and 6002
	6004	knitted or crocheted fabrics, more than 30 centimeters in width, 5% or above in elastomeric yarn or rubber thread in weight, excluding products listed in item 6001
	6005	warp knitting (including the ones knitted by lace knitting machine), excluding products listed in items 6001 to 6004
	6006	other knitted or crocheted fabrics
	6101	knitted or crocheted men's overcoat, car coat, cloak, cape, jacket with hood (including skiing jacket), windcheater, anorak, and other related products, excluding products listed in Item 6103
	6102	knitted or crocheted women's overcoat, car coat, cloak, cape, jacket with hood (including skiing jacket), windcheater, anorak, and other related products, excluding products listed in item 6104
	6103	knitted or crocheted men's Western style suit, leisure suit, overcoat, trousers, bib and brace overalls, breeches and pants (excluding bathing trunks)
	6104	knitted or crocheted women's Western style suit, leisure suit, overcoat, one-piece dress, skirt, pant skirt, trousers, bib and brace overalls, breeches and pants (excluding swimming suit)
	6105	knitted or crocheted shirt
	6106	knitted or crocheted blouse
	6107	knitted or crocheted men's brief, short pants, nightgown, sleepwear, bathrobe, wrappage and other related products
	6108	knitted or crocheted women's full slip, underskirt, short pants, panties, nightdress, sleepwear, bathrobe, wrappage and other related products
	6109	knitted or crocheted T-shirt, undershirt and other vests
	6110	knitted or crocheted pullover, cardigan, waistcoat and other related products
	6111	knitted or crocheted infant's wear and other accessories
6112	knitted or crocheted sportswear, ski suit and swimsuit	
6113	clothing made of knitted or crocheted fabrics listed in items 5903, 5906 and 5907	
6114	other knitted or crocheted clothing	
6115	knitted or crocheted panty-hose, tights, hose, socks and other hosiery, including gradually-pressing stockings (e.g. stockings which can treat varicosity) and non-separate-sole shoes	
6116	knitted or crocheted gloves, mittens, no matter whether they cover all the fingers or not	

**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

clothing, textile, shoes and hats	6117	other ready-made knitted or crocheted accessories; other knitted or crocheted parts on clothing or accessories
	6201	men's overcoat, car coat, cloak, cape, jacket with hood (including skiing jacket), windcheater, anorak, and other related products, excluding products listed in item 6203
	6202	women's overcoat, car coat, cloak, cape, jacket with hood (including skiing jacket), windcheater, anorak, and other related products, excluding products listed in item 6204
	6203	men's Western style suit, leisure suit, overcoat, trousers, bib and brace overalls, breeches and pants (excluding bathing trunks)
	6204	women's Western style suit, leisure suit, overcoat, one-piece dress, skirt, pant skirt, trousers, bib and brace overalls, breeches and pants (excluding swimming suit)
	6205	shirt
	6206	blouse
	6207	men's vest, underwear, briefs, short pants, nightgown, sleepwear, bathrobe, wrappage and other related products
	6208	women's vest, underwear, full slip, underskirt, short pants, panties, nightdress, sleepwear, bathrobe, wrappage and other related products
	6209	infant's wear and clothing accessories
	6210	clothing made of textile listed in items 5602, 5603, 5903, 5906 or 5907
	6211	sportswear, ski suit and swimsuit; other clothing
	6212	brassiere, belly band, foundation garment, gallsuses, stocking suspender, garter and other related products and accessories, no matter whether they are knitted or crocheted
	6213	handkerchief
	6214	shawl, babushka, scarf, veil, yashmak and products or similar kind
	6215	necktie and bow tie
	6216	gloves and mittens, no matter whether they cover all the fingers or not
	6217	other clothing accessories; parts of the clothing or clothing accessories, excluding products listed in item 6212
	6301	blanket and travelling rug
	6302	fabric products used on bed, on dinner table, in the bathroom and kitchen
	6303	window curtain (including drapes) and veiling; drape and bedspread
	6304	other fabric products for decoration, excluding products listed in item 9404
	6307	other ready-made products, including clothing cutting drawing
	6308	retail-packaging set of products containing machine-woven fabrics and yarns, with or without accessories, used for making rugs, decoration carpet, embroidered tablecloth, napkins and other fabric products
	6401	water-proofed shoes and boots whose outsoles and vamps are made of rubber or plastics, and the vamp is not fixed onto the outsole by stitching, riveting, nailing, tucking or other similar methods
	6402	other shoes and boots whose outsoles and vamps are made of rubber or plastics
	6403	shoes and boots whose vamps are made of leather while outsoles are made of rubber, plastics, leather or processed leather
	6404	shoes and boots whose vamps are made of fabrics while outsoles are made of rubber, plastics, leather or processed leather
	6405	other shoes and boots
	6501	hat felt, hat body and hood made of felting, which are not wedged into shape and which hat brim is not attached to; round hat plate made of felting and felting rolls which are used for hat-making (including the cut felting roll)

**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

clothing, textile, shoes and hats	6502	knitted hat felt or hat felt spliced with strips of any material, which is not wedged into shape and which the hat brim, lining and decorations are not attached to
	6503	felted hats whose hat body, hood and round hat plate are listed in item 6501, no matter whether they have lining or decorations
	6504	knitted hats or hats spliced with strips of any material, with or without lining or decorations
	6505	knitted or crocheted hats and hats made of batches of embroidery, felting or other textile (excluding strips), with or without lining or decorations; hairnet made of any material, with or without lining or decorations
	6506	other hats, with or without decorations
	6812	processed asbestos fiber; mixture whose basal component is asbestos or asbestos and magnesium carbonate; above-mentioned mixture and its products e.g. yarn, machine-woven fabrics, clothing, hats, shoes and boots, gasket, no matter they are reinforced or not, excluding products listed in items 6811 and 6813
jewellery and coins	7113	jewellery and accessories made of noble metal or plated with noble metal
	7116	products made of natural or cultured pearl, gem and semiprecious gem (natural, synthetic or reforged)
	7117	artificial jewellery
	7118	coins
other handicrafts	3926	other plastic products and other products made of materials listed in items 3901 and 3914
	4420	inlaid wood (including fine inlaid wood); wooden or paper box or casket for storing jewellery or cutting tools and other similar products; wooden statuette and other decorations; wooden furniture not included in chapter 94.
	5810	embroidery of bolt or piece
	4601	plait and other related products made of interlacing materials, no matter they are sewed into wide straps or not; plait and other related materials made by parallel-connecting or interlacing, no matter whether they are ready-made or not (e. g. mats, matting and curtain)
	4602	basketry and other interlacing products made of interlacing materials or materials listed in item 4601; loofah products
	7114	gold or silver appliance and parts made of precious metal or filed with precious metal
	8306	non-electric bell, gong and other related products made of base metal; statue and other related products made of base metal; photo frame, picture frame and other related frame made of base metal; mirror made of base metal  The 8-digit code of this category are: 83062100 sculptures plated with precious metal and other ornaments 83062910 cloisonné sculptures and other ornaments 83062990 unlisted sculptures made of cheap metal and other ornaments
	9601	processed animal teeth, bone, turtle shell, horn, buck horn, coral and other materials for sculpting and products made of them (including molding products)

**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

furniture	9401	seats (including chair bed, but excluding products listed in item 9402) and the accessories  The 8-digit code of this category are: 94014010 convertible chair made of leather or recycled leather 94014090 other convertible chairs, except for those used in courtyard or in camp 94015000 seats made of cane, wicker, bamboo or similar material 94016110 seats made of wood frame with soft pad and leather or recycled leather surface 94016190 other wood- frame seats with soft pad 94016900 other wood-frame seats 94017110 seats made of metal frame with soft pad and leather or recycled leather surface 94017190 other metal- frame seats with soft pad 94017900 other metal-frame seats 94018010 other seats made of stone 94018090 other seats 94019090 other parts of seats
	9403	other furniture and accessories  The 8-digit code of this category are: 94032000 other metal furniture 94033000 wood furniture for office 94034000 wood furniture for kitchen 94035010 rosewood furniture for bedroom 94035091 lacquer wood furniture for bedroom 94035099 other wood furniture for bedroom 94036010 other rosewood furniture 94036091 other lacquer wood furniture 94036099 unlisted famous wood furniture 94037000 plastic furniture 94038010 furniture made of cane, wicker, bamboo or similar material 94038091 stone furniture 94038099 furniture made of unlisted material
family articles, ceramics and glass	3922	plastic bathtub, shower tray, washing tank, washstand, bidet, bedpan, toilet seat and lid, water closet and other related sanitary ware
	3924	tableware, kitchen ware, other family articles and sanitary ware which are made of plastics
	3925	plastic products for building which are not listed in other items
	3926	other plastic products and products made of other materials listed in items 3901 and 3914
	4202	suitcase, valise, handbag, box file, briefcase, schoolbag, glasses box, binoculars box, cases for musical instruments, holster and other containers of this kind; traveling bag, insulated bag for storing food and drinks, cosmetic bag, canvas bag, gripsack, shopping bag, purse, wallet, map case, cigarette case, cigarette bag, satchel, sports bag, bottle case, jewel case, puff box, tableware case and other containers of this kind, which are made of leather, processed leather, plastic sheet, textile materials, vulcanized paper or cardboard (some of them use a little other materials e.g. the bag or case is covered with a sheet of paper)
	4414	wooden picture frame, photo frame, optical frame and other related products
	4415	wooden packing case, wooden box, crate, bucket and other related containers; wooden cable drum; wood pallet, box pallet and other wood board for transportation; wooden tray cage
	4416	wooden bucket, barrel, basin, and other related bucket, as well as accessories, including clapboard
4417	wooden tools, tool support, tool grip, broom, brush and its grip; wooden last of shoes and boots	

**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

family articles, ceramics and glass (continued)	4418	wooden products for building, including wood veneer of cellular structure, jointed floor board, wooden tile and shingle
	4419	wooden tableware and kitchenware
	6904	ceramic bricks for building, paving brick, bricking for supporting and stuffing and other related products
	6905	roof tile, chimney hood, cowl, chimney lining, building decoration and other ceramic products for building
	6906	ceramic thimble, pipe, chute and pipe accessories
	6907	ceramic face bricks without glazing, including stove tile and wall tile; mosaic and other related products without glazing, with or without backing
	6908	glazed ceramic face bricks, including stove tile and wall tile; glazed mosaic and other related products, with or without backing
	6910	ceramic washing tank, basin stand, bathtub, bidet, flush toilet, water closet, urinal and other related fixed sanitary ware
	6911	ceramics used as tableware, kitchenware and other daily family use
	6912	pottery used as tableware, kitchenware and other daily family use
	6913	plastics and other ceramic products for decoration
	6914	other ceramic products
	7003	founded or rolled glass sheet, section material and profiled bar, without any other processing method, no matter they have absorbing, reflecting and non-reflecting coating or not
	7004	pulled or blown glass sheet, without any other processing method, no matter they have absorbing, reflecting and non-reflecting coating or not
	7005	float glass sheet and surface-ground-or-polished glass sheet, without any other processing method, no matter they have absorbing, reflecting and non-reflecting coating or not
	7006	glass listed in items 7003, 7004 or 7005, which have been processed by bending, edging, carving, drilling, painting enamel or other methods but without passé partout or assembling with any other materials
	7008	products made of multi-layer heat-insulated and sound-insulated glass
	7009	glass mirror (including rear view mirror) with or without passé partout
	7010	glass jar, bottle, urn, ampoule and other containers used for storing and transporting goods; glass preserving kettle; glass stopper, lid and other seals
	7011	unsealed glass shell (including glass bulb, and glass tube) used for making lamp bulb, cathode ray tubes and other related products, without any accessories
7013	glassware, used on dinner table, in kitchen, bathroom, office, interior decoration and other related ways (excluding products listed in items 710 and 7018)	
7014	signal glassware with optical processing and cellophane optical element (excluding products listed in item 7015)	
7015	watch or clock glass and glass used in all spectacles, which are in the shape of camber, curve, concave or other shapes but without any optical process	
7016	pressed or molded glass blocks, bricks, plates, tiles and other products for surfacing in buildings, with or without wire inside; glass mosaic and other small glass products for decoration, with or without backing	
7017	glassware used in labs, sanitation and having a prescription filled, with or without scale	
7018	beading, artificial pearl, artificial gem, artificial semiprecious gem, other related products and their mimic products, excluding artificial jewellery; glass eye, excluding artificial eyes for medical use; lamp-blown glass statue and other glass decorations, excluding artificial jewellery; small beading with a diameter of less than 1 millimeter	



**Table 25: The Classification of Partial Copyright Industries Corresponding to the Classification Standards by the Customs (continued)**

family articles, ceramics and glass (continued)	7612	aluminium barrel, jar, tin, bucket and other related containers for storing materiel, including flexible tube container and rigid tube container (excluding the ones for storing compressed gas or liquefied gas), less than 300 litres in capacity, with or without lining or heat insulation, but no mechanical or thermal installation attached.  The 8-digit code of this category is: 76129010 aluminium pop-top
	8113	81130000 metal ceramic and its products, including fragmentary waste
	8215	scoop, fork, ladle, colander, pastry crimper, fish knife, butter knife and similar kitchenware
	8306	non-electric bell, gong and other analogues of base metal; statuettes and other ornaments of base metal; photo and picture frame of base metal and other similar frames; mirror of base metal.  The 8-digit code of this category is: 83063000 photo and picture frame of base metal and other similar frames; mirror
	8310	Signboard, nameplate, address plate and other similar signs with numbers and letters which are made of base metal, excluding products listed in item 9405
	9405	lamps and lighting fittings including searchlights and spotlights and parts thereof, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like, having a permanently fixed light source, and parts thereof not elsewhere specified or included  The 8-digit code of this category are: 94051000 chandeliers and other electric ceiling or wall lighting fittings 94052000 electric table, desk, bedside or floor-standing lamps 94053000 Christmas tree light sets
	9606	buttons, press-fasteners, snap-fasteners and press-studs, button moulds and other parts of these articles; button blanks
	9617	vacuum flasks and other vacuum vessels, complete with cases; parts thereof other than glass inner  The 8-digit code of this category is: 96170010 vacuum flasks
wallpaper and carpet	5701	woven loop-pile carpet and other woven loop-pile ground-covering products made of textile, no matter whether it is ready-made or not
	5702	machine-made carpet and other machine-made ground-covering products made of textile, without tuft or flocking, no matter whether it is ready-made or not, including KELEM, SCHUMACKS, KARAMANIE and other related hand-made carpet
	5703	tufted carpet and other tufted ground-covering products made of textile, no matter whether it is ready-made or not
	5704	felting carpet and other felting ground-covering products made of textile, without tuft or flocking, no matter whether it is ready-made or not
	5705	other carpet and other ground-covering products made of textile, no matter whether it is ready-made or not
	4814	wallpaper and other related products; transparent window paper
	4815	ground-covering products whose bottom part is made of paper or cardboard, no matter whether it is cut into particular patterns or not
toys and game facilities	9503	tricycle, scooter, pedaling car and other wheeled toys; toy cars; dolls; other toys; scale-down model and other models for amusement, no matter whether it is movable or not
	9504	game facilities used in places of entertainment, including pinball machine, billiards table, tables used for entertainment and automatic bowling alley
	9505	entertainment facilities used in festivals and other occasions, including magic show props and other play facilities
	9508	amusement park facilities such as merry-go-round, swing and shooting target; touring troupe

**Table 26: The Classification of Non-Dedicated Support Industries Corresponding to the National Industries Classification Standards**

Main groups	UN industries classification code	Four-digit industries according to the national industries classification standards and their brief introductions
general wholesale and retail industries	51	63 whole
	52	65 retail
general transporting industry	60	
	61	51 railway transportation
	62	52 road transportation
	630	53 urban public transportation
		54 water transportation
		55 air transportation
		57 transport support activities
	58 storage	
	59 state post	
	641	
telephony and Internet industries	6420	601 telecommunication
	7240	602 Internet information service

## Annex: Studies of Partial Copyright Industries

---

As mentioned above, in order to get the factors of some partial copyright industry, this research is based on the literature survey and the sample survey (field survey and questionnaire).

According to the classification in WIPO's *Guide*, the partial copyright category can be divided into ten industries, including garments, textiles and shoes; jewellery and coins; craft works; furniture; household goods, porcelains and glass; wallpaper and carpets; toys and games; architecture, projects and measures; house designs and museums. In these categories, the relationships of the products and the copyright are quite different, no matter whether the products are of the same category or not. For example, porcelains come in different kinds; the art porcelain the household porcelain and the architecture porcelain are widely different in their relationships with copyright. It needs a whole research of every industry and sample survey and analysis of relevant enterprises to set the copyright factors properly.

At the beginning of the research, it did not consider the differences of industries, using the same questionnaire (See Attachment 1). According to the results, Chinese professionals in the copyright-based industry had low copyright recognition and some of them had no clear understanding about the relationship of their work with copyright. They even had difficulties answering the questionnaire. So, then the questionnaire was amended, according to the characteristics of the ten categories (See Attachment 2). Some details of the research are as follows:

### 1. Chinese Garments, Textiles, Hats and Shoes

#### 1.1 General Survey of Chinese Garments, Textiles, Hats and Shoes Industry

Garments, textiles, hats and shoes industry is one labour-intensive industry. It is also a fully developed one at present in China. Basically, this industry spreads all over the country. The coastal areas, especially the Yangtze River Delta Region, the Pearl River Delta Region and Fujian province are important areas for the industrial cluster, such as the textile industry of Nantong in Jiangsu, the suits production of Ningbo in Zhejiang, the garment production of Shishi in Fujian, the casuals of Jijiang in Fujian, the wedding dress and evening dress of Chaozhou in Fujian and the leather shoes industry of Wenzhou in Zhejiang.

Chinese garments, textiles, hats and shoes industry has large scale and high output but low profit. The industrial cluster develops greatly in coastal areas, mainly pulling in the foreign trade. The change of export has significant influence on this industry. The labour-intensive feature, the cost and price are the greatest advantages of Chinese garments, textiles, hats and shoes industry at present. So in the low and middle end market, it has an obvious advantage but in the high end market, it lacks in high end products and designs.

Talking about the associations of this industry, the national associations are China National Garment Association, China Textile Industry Association, etc. and some are local associations.

#### 1.2 The Relationship of Garments, Textiles, Hats and Shoes with Copyright

The pattern of garments and shoes, the layout of textiles and other designs are creative works being protected by the copyright laws. Most exporting garments of China are OEM as the order, without independent innovation. This is one important cause of lacking high end products. As regards with the design ability, China has great room to improve the design and innovation comparing with France, Italy, the UK and so on, which are strong in this field.

In view of the relationship of the industry and copyright, Chinese garments, textiles, hats and shoes have advantages in cost and price while disadvantages in design and innovation. This industry is high output, large scale, with great numbers of workers but low profit. The copyright factors are low due to lack in professional designers.

Based on the research results and considering the copyright factors of other countries, this research concludes that the copyright factor is 0.4% of Chinese garments, textiles, hats and shoes industry. What should be pointed out is that this value is relative to the value-added of all subcategories included in the category of garments, textiles and shoes. Seen from a specific object, the copyright contained in high value-added textiles is higher than 0.4%, while some basic textiles like cloth without dyeing or single-color cloth do not have copyright. Since there are no related categories of copyright industries in state statistics, 0.4% is only the mean of the copyright factors of the whole industry. It does not mean that the copyright factor of all subcategories is 0.4%. For the following copyright industries, the value of copyright factor refers to the mean of the general category but does not represent the value of the specific product.

#### Household textiles in various design and color<sup>51</sup>



<sup>51</sup>Source: <http://www.hometexnet.com/Images/ProductUpload>

Fashion dress designed by Chinese designer<sup>52</sup>



<sup>52</sup>Source: <http://www.cnga.org.cn/lxz3/View.asp?NewsID=19305>



## 2. Chinese Jewellery and Coin

### 2.1 General Survey of Chinese Jewellery and Coins Industry

#### 2.1.1 *The Jewellery*

Since Chinese reforming and opening up, Chinese jewellery industry has made outstanding progresses. However, there is a big gap between China and the developed countries and areas. Only some major enterprises do well. Many small and middle sized enterprises are weak in technology, research and development, and their products are out of fashion and homogeneous with poor designs. So the small and middle sized just compete in the low end market. Besides, the exported jewellery of China is manufactured for other countries. Chinese factories get poor manufacturing pay while the foreign businessmen get more profit.

Chinese jewellery and coins industries gather in the developed coastal areas and several big cities. The development of the jewellery industry is related closely to the consumption level. For instance, near to the Hong Kong's and Macao's mature markets, in Pearl River Delta, the jewellery manufacturing is well developed and Shenzhen's amount of jewellery brands and recognition rank the top of national markets. In Shenzhen, in 2008, the registered jewellery corporations and enterprises are more than 2300 and the registered brands are more than 2200, over 700 enterprises are in jewellery studding business. About 120,000 people work in this industry in Shenzhen and the total manufacturing value is over ¥60 billion, taking up over 70% of the domestic jewellery market.

The Gems & Jewelry Trade Association of China is the national guild, with one committee specialised in design. Meanwhile, there are some local associations in the major jewellery producing areas.

#### 2.1.2 *The Coins*

The "coins" means the metal coins with certain form, quality, weight and nominal price. Coins related to copyright mainly are gold and silver commemorative coins. It is an international practice to take the gold and silver coins as the legal currency of a country. The gold and silver coins of most of countries are issued by the central bank, ministry of finance or mintage organization following strict rules. Chinese gold and silver coins are minted by certain mints which are appointed by the People's Bank of China. They are distributed by China Gold Coin Incorporation, retailed by domestic or foreign dealers and franchised by the People's Bank of China.

Chinese precious metal commemorative coins are legal RMB of China, issued in limited amount with special themes. Authorised by the State Council, the People's Bank of China began to issue the precious metal commemorative coins. By 2004, China had issued precious metal coins in more than 270 programs, near 1500 kinds, among which, gold coins are over 3.4 million ounce and silver coins are over 26.0 million ounce. The precious metal commemorative coins have formed ten series, including the panda and animal & plant coins, the twelve animal signs coins, the great commemorative event coins, the outstanding people coins, the literature and art coins, the traditional culture coins, the religious culture coins, the Olympic and sport coins, the world heritage and scenic sites coins and other subject coin.<sup>53</sup>

### 2.2 The Relationship of Jewellery and Coins with Copyright

Categorised by material, there are gold and silver jewellery, gems, pearls and artificial jewellery. The jewellery is classed by material usually. Based on the intention of the designers, we divide them into popular jewellery and art jewellery. The designs of the jewellery make them be works defined in the copyright laws and be protected. For the different kind of jewellery, the copyright factors are greatly different. For instance, the copyright factor of the artificial jewellery is higher than the gold and silver, gems and pearl ones. As the improvement of the consumption level and development of the jewellery market, the design draws more and more attention. When improving the added-value, the design is one important factor.

<sup>53</sup>Source: [www.chinagoldcoin.net](http://www.chinagoldcoin.net). An interview with the speaker of China God Coin company.

Likewise, the design of commemorative coins is protected by the copyright laws. The precious metal coins were designed mainly by designers of mints and China Gold Coin Incorporation until 2000. After the Design and Sample Coin Committee founded in 2000, the design teams became stronger continuously, forming the fine competitions of social designers (art colleges and design companies), the engaged designers (art experts) and professional designers (mints).

Based on the research results, considering the copyright factors of other countries, this research concludes that the copyright factor of Chinese jewellery and coins industry is 8%. In the aspect of distribution rules, the more expensive a jewellery is the less copyright it contains. Take a jewellery made by a rare big diamond as an example, although it takes great value-added of fabrication design, its value is far less than the jewellery itself. Only in the general jewellery, the copyright of fabrication design is obvious.

**Awarded "Flying Men" in the 2008 China International Design Competition<sup>54</sup>**



**2008 Olympic coins<sup>55</sup>**



<sup>54</sup>Source: <http://test.0755zb.cc/work3/20080624/page1.html>

<sup>55</sup>Source: <http://www.china-coins.cn/productshopxp.asp?id=563>

## 3. Chinese Handicrafts

### 3.1 General Survey of Chinese Handicraft Industry

Chinese handicrafts are various in kinds and geographically different. Generally, handicrafts have regional characteristic all over the country. Most of them are made by hands with small industrial size. According to the industry statistics, the production values in descending order are: ¥89.706 billion of jewellery, ¥63.805 billion of folk craft works and other works, ¥54.784 billion of fagoting embroideries, ¥36.628 billion of crude botanic knit goods, ¥27.698 billion of carpets and tapestries, ¥26.163 billion of metal craft works, ¥22.433 billion of sculptures, ¥13.52 billion of flower paintings, ¥12.04 billion of potteries, ¥8.335 billion of lacquers and ¥5.41 billion of firecrackers.

In 2006, the export value of Chinese arts and crafts is ¥142 billion, 39.4% of the production value of this industry. The export value of Chinese folk and other craft works is ¥28.79 billion, and others respectively as follows: ¥26.71 billion of jewellery, ¥20.565 billion of fagoting embroideries, ¥19.905 billion of crude botanic knit goods, ¥9.453 billion of the metal craft works, ¥7.84 billion of potteries, ¥7.496 billion of carpets and tapestries, ¥6.63 billion of flower paintings, ¥6.485 billion of sculptures, ¥4.78 billion of lacquers and ¥3.35 billion of firecrackers.

According to the categories from WIPO, jewellery and carpets are individual categories and the firecrackers are not included.

As the regional difference, handicrafts in different categories have different characteristics. Take the embroidery as an example, embroideries of different regions are different in techniques and patterns. Some famous ones are Su embroidery, Shu embroidery, Yue embroidery, Xiang embroidery, etc. Most handicrafts are also featured in deep historical and cultural roots.

**Daxi Bottle**<sup>56</sup>



### 3.2 The Relationship of Handicrafts and Copyright

Traditional handicrafts are not in the framework of the copyright laws directly. However, it does not mean that the handicrafts have no copyright issues. How to inherit and develop are problems all traditional handicrafts

<sup>56</sup>Source: [www.huanbohainews.com.cn](http://www.huanbohainews.com.cn), by Liu Xishun

face. The creations during the craft work developing are works which should be protected by the copyright laws. Besides, in some scaled and industrialised craft works industries, the innovative shape and pattern are protected by the copyright laws.

Based on the research results and considering the copyright factors of other countries, this research concludes that the copyright factor of Chinese jewellery industry and coins industry is 40%. Similarly, the copyright contained in each specific handicraft of this general category is different. 40% is the mean of the whole other handicrafts.

## 4. Furniture Industry in China

### 4.1 A Brief Review of Chinese Furniture Industry

Furniture is most commonly categorised by its materials and purposes. With regards to the former criterion, there are wood, metal, textile fiber, plastic and other special materials, with wood being the conventional type; as for the latter, there are both domestic and office furniture.

Currently, furniture industry in China has gradually established industrial clusters in different parts of the country, such as Guangdong, Sichuan, Hebei, Beijing Northeast China, etc. In the meantime, these large-scale enterprises have found their individual strengths through development.

#### *(1) Guangdong Province*

As the common saying in the industry goes: "All the furniture manufacturers in China should look to Guangdong." Furniture industry first flourished in the Guangdong Province in the early 1980s. By processing the products of an overseas brand name OEM in its infancy, Guangdong's furniture industry gained rich experience that proved valuable later in creating their own brand names. Guangdong furniture mostly takes the European and American style, oriented towards the middle and high-end market, with the products mostly sold to large cities. Right now, there are three major furniture expositions in Guangdong: Shenzhen Furniture Expo organised by Shenzhen Furniture Association, Guangzhou Furniture Expo organised by Guangzhou Furniture Association, Dongguan Furniture Expo jointly organised by Dongguan Furniture Association and Hong Kong Furniture Association.

#### *(2) Sichuan Province*

Sichuan is a latecomer compared with Guangdong. From the very beginning, their products have been oriented towards the middle and low-end market, focusing on medium-sized cities. Hence they have been dubbed the "farmer's furniture" and always adopted the terminal marketing strategy. Such a market positioning makes Sichuan-made furniture immensely popular in medium-sized cities, bringing in enough capital for further development. In recent years, several comparatively stronger manufacturers in the Sichuan Province have begun to produce "fine furniture", that is of medium and high quality and is also pricier, gradually changing their market position and advancing into large cities.

#### *(3) Hebei Province*

Hebei furniture is featured by its adoption of various fashionable elements, learning from manufacturers around China and forming a style that satisfies the function demands and taste of the people in Hebei. Currently, Hebei furniture is in the leading position in North China, occupying the market in such regions as Northeast China, Inner Mongolia, Xinjiang, Gansu, Hebei, He'nan, etc. Two major furniture production bases in Xianghe and Bazhou have helped consolidating the leadership of the Hebei Province in China. Fiberglass furniture of Bazhou in particular enjoys great fame in China and also sells well in Southeast Asia.



#### *(4) Beijing*

Fiberboard furniture has been developing rapidly in Beijing these last few years. One reason is that northern consumers doubt whether furniture produced in the South is suitable to use in the dry climate of the North. Therefore, they are more inclined to choose domestic brands. Another reason is that compared with producers from other regions, a better understanding of domestic market demand and geographical proximity helps northern manufacturers cut transport cost and improve service efficiency and pertinence.

#### *(5) Northeastern Provinces*

Furniture industry in the northeastern provinces, supported by natural forest resources, has taken a significant market share with its solid wood products. Many furniture enterprises based in Dalian, Shenyang and Harbin have made considerable progress in recent years. Right now, Shenyang is home to over 1,200 furniture manufacturers and distributors with an annual production of 3.5 million pieces, one third of the total production of all the three northeastern provinces. It is now making its way toward being “the capital of solid wood furniture” in China.

The industrial association of Chinese furniture industry is China National Furniture Association. Guided by the China National Light Industry Council, it is a nationwide industrial association composed of voluntary members, including businesses, public institutions, social groups and individuals in the furniture industry and the manufacturing, management, scientific research and teaching of related industries.

## **4.2 Furniture and Copyright**

A copyright-based industry perspective is mainly concerned with the design, shape and pattern of furniture. Noteworthy aspects include the partial design of traditional classical furniture such as carvings and colored paintings, as well as the shape of wooden furniture.

### **Wooden Furniture with Painting and Coating<sup>57</sup>**



<sup>57</sup>Source: the website of China National Furniture Association, <http://www.cnfa.com.cn/cnfa2009/jjsj/index.html>



### Creative Design of Bamboo-shaped Six-drawer Cabinet<sup>58</sup>



### "Golden Axe" Award-Winning Round-Backed Armchair<sup>59</sup>



In China, professional design companies such as a furniture research institution in Shenzhen have been drawing increasing attention from furniture manufacturers. In Houjie Township of Dongguan City, a famous furniture manufacturing base in China, the number of professional furniture design institutions is on the rise. Many furniture manufacturers now have their own professional designers. Some others have signed contracts with famous industrial designers in the world, importing top designing ideas from the international stage for their own development. The designing capacity of furniture manufacturers, professional furniture

<sup>58</sup>Source: *ibid.*

<sup>59</sup>Source: *ibid.*

designing companies and overseas furniture designers is providing intellectual support for Chinese furniture industry.

According to this survey and by referring to that of other countries, the copyright factor of Chinese furniture industry is 5%.

## 5. Chinese Housewares and Appliances

### 5.1 Ceramics

#### 5.1.1 Chinese Ceramic Industry

As the hometown of porcelain, China has always been known as “the country of porcelain”. The art of porcelain includes the shaping, ornamentation, material selection and techniques of making chinaware. It is both art and science. In terms of purposes, there are artistic ceramics, domestic chinaware, construction ceramics, hygienic ceramics and ceramics for special purposes. There are several famous ceramic-production areas in China.

##### *(1) Jingde Township in the Jiangxi Province*

Jingde Township is one of the major ceramic-production areas in China with a long history and international fame. It is acclaimed as the “porcelain town”. Jingde Township has a profound ceramic culture. With regards to shape, there are two major types of ceramics, being the round and the polished ones. Round ceramics refer to the round chinaware made by windlass, such as plates and bowls, while polished ceramics refer to those that have been carved into various shapes, such as jar, bottle, crock, kettle, pot, cup, etc. and made with various techniques. Besides round and polished chinaware, there is yet another peculiar shaping technique called porcelain carving. According to its different polishing methods, porcelain carvings can be divided into round carvings, relief, embossment, hollow carvings, etc. The products range from artistic work to toys and house ware, covering almost everything.

Jingde Township has four traditionally famous types of porcelain, including Blue and White Porcelain, Exquisite Blue and White Porcelain, Colored Porcelain and Monochrome Porcelain, they demonstrate the artistic power of Jingde porcelain in decoration.

##### *(2) Foshan City in the Guangdong Province*

Foshan ceramic industry also enjoys a long history. For thirty years since the introduction of reform and opening-up policy, construction and hygienic ceramic industry has developed rapidly in Foshan, forming a complete ceramic industry system that is in the leading position in China. Relevant surveys show that Foshan construction ceramic industry has an annual production capacity of over 10 trillion square metres, more than 50% of the country's total and about 25% of the world's total while the annual production of hygienic ceramics is over 13 million pieces, 16% of Chinese total and 5% of the world's total. Right now, Foshan is among the most important ceramic-production areas in the world.

##### *(3) Dehua County in the Fujian Province*

Dehua ceramic industry has been developing for a long period of time. Since the founding of the People's Republic of China, Dehua has established a production system with three major types of products, namely traditional porcelain carving, occidental porcelain craft work and porcelain for domestic use. A number of famous ceramic enterprises have also emerged. Dehua ceramic production value was 5.31 billion RMB in 2003 and export consignment value was 4.21 billion RMB. In March 2006, Dehua County was named as “the porcelain hometown in China” by the Agricultural Development Research Department of the Development

Research Center of the State Council. In 2003, it was given the title of “the hometown of ceramic folk art in China”.

#### *(4) Yixing Ceramic*

Yixing has also been known as “the capital of ceramic industry in China”. Among the over 7,500 types of ceramic products in Yixing, some fine types such as purple sand porcelain, celadon, Jun ceramics, painted pottery, fine ceramics, etc., enjoy world fame. In the areas of Dingshan and Shushan in Yixing where almost everybody is engaged in ceramic production and kilns can be seen everywhere, purple sand porcelain teapot is the most famous. Workers melt together purple clay, red clay and green clay to produce melon-shaped pot, tree-trunk shaped pot, and the ancient styled pot with a looped handle; then craftsmen engrave ancient poems, landscape, floral patterns or fish on the pots and seal them. After further baking, a piece of artistic work that combines engraving, Chinese calligraphy and painting in one pot is completed.

#### *(5) Ceramics in the Shandong Province*

Shandong ceramics, produced mainly in the Zibo and Linyi area has been gaining momentum in its development since the introduction of the policy of reform and opening-up. Currently, the output of ceramic tiles from there is among the top in the country.

#### **5.1.2 Ceramics and Copyright**

The copyright issue is mainly concerned with the shape and pattern of ceramic products, the latter being more important.

#### **Ceramic Coffee Ware<sup>60</sup>**



<sup>60</sup>Source: <http://www.ceramicexpo.cn/Product.aspx?Id=207> , [www.huanbohainews.com.cn](http://www.huanbohainews.com.cn)

## Ceramic Tableware<sup>61</sup>



## 5.2 Lamps and Lanterns

### 5.2.1 Chinese Lamp Industry

Chinese lighting industry has been making rapid progress in the recent two decades and established a complete industrial system. Right now there are over 10,000 lighting product manufacturers in China. In 2005, China took 11.4 billion USD worth of market share from the total 100 billion USD, accounting for 11.4%. The 10,000 manufacturers in China had a total sales revenue of 140 billion RMB in 2005, with an export value of 8 billion USD. A study conducted by international research organisations predicts that the lighting market demand in 2013 shall reach 140 billion USD, 20% of which shall be light source and the rest 80% belongs to lamps and lanterns. The same ratio is also true in China as it is the largest producer of electric light source products in the world and one of the largest in terms of lamps and lanterns.

An analysis of the industry distribution and structure reveals that most of the manufacturers are concentrated in the Pearl River Delta and Yangtze River Delta.

<sup>61</sup>Source: photos taken by the project team during the studies in a porcelain manufacturing enterprise in Hebei.



### 5.2.2 *Lamps and Copyright*

The copyright issue is mainly concerned with the ornamentation of lamps and lanterns.

#### **Exquisite Bed Lamp<sup>62</sup>**



### 5.3 **Glass**

Although China has topped the world for many years in a row in terms of glass output, most of the products are common float glass. The shape and patterns of glass involve copyright issue.

#### **Empaistic Glass<sup>63</sup>**



<sup>62</sup> Source: Jiatian Net [http://www.zm-china.cn/news/2008/0922/article\\_1128.html](http://www.zm-china.cn/news/2008/0922/article_1128.html).

<sup>63</sup> Source: Net of China Glass, [http://www.glass.com.cn/glassbiz/bizmessage\\_913604.html](http://www.glass.com.cn/glassbiz/bizmessage_913604.html).



### Blown Artistic Glass for Wall Ornamentation<sup>64</sup>



According to this survey and by referring to the copyright factor of other countries, the copyright factor of Chinese house wares, ceramics and glass products is 0.3%. What should be pointed out is that many products in this category do not have copyright. For example, in the category of glass, most plate glass and optical glass do not have copyright, but the artistic glass, decorative glass and other engraved glass or stained glass have. Since the statistics are for the whole glass industries, 0.3% is relative to the value-added of the whole industry.

## 6. Wallpaper and Carpet Industry in China

### 6.1 A Brief Review of Wallpaper and Carpet Industry in China

Wallpaper, used for interior decoration, is classified into various categories according to the materials used, the differences of which also cause them to be functionally different. For example, there are paper-made wall covering, textile wallpaper, PVC wallpaper, glass-fabric wallpaper, etc. The industry is mainly distributed in Shanghai, Guangdong, Zhejiang, etc. and its national industry association is China Building Decoration Association under the Ministry of Housing and Urban-Rural Development. There are local associations as well.

The carpet, a textile, has two main classifications. According to processing methods, there are hand-made carpets and woven carpets, while according to materials, there are pure wool carpets, chemical fabric carpets and plastic carpets. Hand-made carpets originate from handicrafts that have a long history. Places, like Xinjiang, Tibet, Beijing and Tianjin are well-known for their man-made carpets. Tibetan carpets, Khotan carpets from Xinjiang, Jingning carpets from Gansu and silk carpets from Zhenping, Henan, are typical representatives. In terms of the industry distribution, it is mainly located in North and East China, including Shandong, Jiangsu and Shanghai. The national industry associations are China Carpet Industry Association under the China Arts and Crafts Association, China Wool Textile Association, etc.

### 6.2 Wallpapers, Carpets and Copyright

As functional or decorative items for domestic life, the pattern and color are important components of wallpaper and carpets. However, as some traditional carpets or normal wallpapers only employ traditional patterns or images without any designs, they can hardly be regarded as “works”. On the other hand, many hand-made carpets are characterized by strong sense of creation by artists, so are some designed wallpapers and woven carpets. Therefore, they are entitled to the protection of the Copyright Laws as their layout,

<sup>64</sup>Source: *ibid.*

patterns and colors constitute the whole work. From the perspective of the industry development, the wallpapers and carpets, owing to their decorative function, will be more competitive if they have their own copyrighted designs.

According to this survey and by referring to the copyright factor of other countries, the copyright factor of Chinese wallpapers and carpets is 2%. As mentioned above, in this industrial classification, some materials such as ones of carpet, wallpaper, etc. are without the component of copyright.

## 7. Toys and Game Facilities in China

### 7.1 Industry Overview of Chinese Toys and Game Facilities

Toys are among the major export products in China and therefore the whole toy industry is export-oriented. The Pearl River Delta is where the industry is concentrated apart from Zhejiang, Fujian, Jiangsu, etc. The toy industry is also a labour-intensive one. The game facilities mainly include recreation supplies for outdoor or indoor activities. The national industry association is China Toy Association under the China National Light Industry Council. There are local industry associations as well.

The development of the toy industry is subject to the export fluctuations, reflecting the great influence of economic situations on the industry. Apart from its advantages of low cost and price, the industry should continually upgrade the technology and improve its designs to meet diversified requirements.

### 7.2 Toys, Game Facilities and Copyright

There is a great variety of toys with different functions and technical contents. From the copyright perspective, designs are of great significance to all toys. Besides, toys are important derivative products of many cultural products. For example, characters from cartoon movies serve as materials for toy designs and these derivative toys from the copyrighted work should also be entitled to the copyright protection if they are given the license to be produced.

In terms of recreation supplies, as game facilities are usually integrated with recreational activities at theme parks, the design of the theme and related game facilities is full of the "creation" factor. The development of new game facilities also requires the design to be protected by the copyright.

According to this survey and by referring to the copyright factor of other countries, the copyright factor of Chinese toys and game facilities is 40%.

## 8. Architectures in China

According to documents issued by the World Intellectual Property Organization (WIPO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1986, the architectural work includes two parts, namely, the architecture itself (one that must be original in appearance, decoration or design) and its design drawing and model.<sup>65</sup> The Chinese Copyright Law makes clear the protection of architectures while listing drawing and model among the works. Therefore, the architectural works, according to the current Copyright Law and its Implementation Regulation of China, is the "architecture itself" mentioned in WIPO and UNESCO documents, that is the original one in appearance, decoration or design. In other words, as the architectural work presents itself through its appearance, such as lines, decoration and colors, the copyright protection can only be employed for its appearance design.<sup>66</sup> As creativity is indispensable in architectural works, "match-box" buildings<sup>67</sup> for practical use or buildings of no aesthetic design can hardly be regarded as architectural works.<sup>68</sup>

<sup>65</sup> Zheng Chengsi, 1997, *Copyright Law (Revised Version)*, China Renmin University Press, pp. 114-115.

<sup>66</sup> Chen Jinchuan, 2009, "Analysis of Copyright Cases in Beijing Supreme Court, 2008." *China Copyright* (2<sup>nd</sup> issue).

<sup>67</sup> Wang Qian, 2007, *Copyright Law*, Beijing University Press, p.57.

<sup>68</sup> Wang Qian, 2007, *Copyright Law*, Beijing University Press, p 57.

According to the classification and description in Chinese Copyright Law, pictures and models should be included in the core copyright sector. The architectural works belong to the partial copyright industry, as only their appearance designs are related with copyright.

According to this survey and by referring to the copyright factor of other countries, the copyright factor of Chinese architectures, engineering and investigation is 6%.

## 9. Interior Decoration in China

The interior decoration industry has emerged since Chinese reform and opening-up. The industry has embarked on an all-round development since the early 1990s as a great number of decoration companies have been set up as mushrooms. It has grown fast, driven by the strong demand and market force, however, there is still a long way to go before we achieve the international standard.

According to this survey and by referring to the copyright factor of other countries, the copyright factor of the interior decoration industry in China is 5%.

## 10. The Museum Sector in China

### 10.1 Industry Overview of the Museum Sector in China

In July 2001, the 19<sup>th</sup> General Conference of the International Council of Museums (ICOM) defined that “the museum is a public, non-profit and permanent institution for the society and its development. It collects, preserves, spreads and displays evidence of human beings and human environment for research, education and enjoyment.” Though scholars hold different opinions about the museum functions<sup>69</sup>, the definition shows the widespread understanding of museums across the world, that is “museums are not oriented for profits” and the main function is “to collect, preserve and research into cultural heritage, and to provide opportunities for appreciation and education” as well as “for the benefits of society and its development”. Therefore, the museum sector belongs to public services and its contribution to society is cultural instead of economic.

Museums have a long history in China. There were imperial and aristocratic collection bodies in the ancient time although there was no such term as “museum” then. Modern museums, as independent cultural bodies, have emerged and developed since the beginning of the 20<sup>th</sup> century. The founding of the People’s Republic of China turned a new chapter for museums in Beijing. Since the reform and opening-up, Chinese museums have gained great momentum. It is estimated that the number of museums reached over 2,200, among which 1,504 are under the cultural heritage institutions. There is a great variety of museums in China and almost each industry has one to display their development and achievements.<sup>70</sup>

The Chinese museums have three major functions as follows<sup>71</sup>: collection for collecting, preserving and managing collections; research for appraising, dating collections and identifying their historic, artistic and scientific importance; and education for holding exhibitions to promote the collections, organizing seminars and editing and publishing books as well as periodicals.

Before 1988, Chinese museums were categorised into specialised museums, memorial museums and comprehensive museums, according to this, the National Bureau of Statistics collected statistics and issued development report respectively. Now the department in charge of museums and experts believe that it is

<sup>69</sup>For example, some scholars summarize “3 E-functions” of museums, namely, education, entertain and enrich while others support “3 I-functions” of investigation, instruction and inspirator.

<sup>70</sup>Fei, Anling. *General Description of Works*. Analysis on the Copyright Law of People’s Republic of China, Pg. 159. China Radio International Press. 1<sup>st</sup> edition, Feb 1991.

<sup>71</sup>In 1956, the First National Museum Conference was held in Beijing. A series of the fundamental issues were discussed for the development of museums, making clear the basic functions and tasks of the socialist museums. Museums were positioned as “scientific research institutes”, “cultural and educational institutes” and “collection institutes of cultural heritage”, which were the well-known “3 Characteristics” of the museum, similar to the “3 Functions” formulated by the world museum sector. Reference

suitable to classify Chinese museums into historical, artistic, scientific, technical and comprehensive categories, based on Chinese situations and the international practice.

## 10.2 Museums and Copyright

As mentioned above, museums are institutions for cultural promotion and social undertakings. However, economic means and management have been introduced to the whole or part of the museum operation with regard to the development of domestic and overseas museums. In July 2001, the 19<sup>th</sup> General Conference of ICOM held in Barcelona, Spain, chose “Steering Reform: Museums facing Economic and Social Challenges” as its theme. The future path of development for world museums is to search for new ideas, try new models and approaches to meet economic and social challenges. Now museums are playing an important economic role through the cultural industry, tourism and artistic market, etc.<sup>72</sup> as copyright becomes increasingly important for those industries.

The relationship between museums and copyright is reflected in the following aspects: exhibits in the period of copyright protection such as photographic works, artistic works and movies, etc.; the museum itself and digital images/videos related to the exhibits; the museum collection list and its exhibition design; printings published by the museum and unique cultural commodities developed by the museum.

In order to have a deep understanding of industry situations, the project has conducted field research in the Capital Museum, the Palace Museum, Beijing World Art Museum and the Poly Art Museum. Among them, the Capital Museum and the Palace Museum are government-affiliated institutions solely funded by the state while Beijing World Art Museum receives the balance allocation from the government and the Poly Art Museum is funded solely by the enterprise. All of them are representatives of the industry.

The above-mentioned museums are different in their nature and scale and have their own advantages in copyright-related activities. However, generally speaking, the copyright has brought a small economic contribution to the industry, this is in response to the survey outcome.

According to this survey and by referring to the copyright factor of other countries, the copyright factor of the museum sector in China is 0.5%.

## 11. A Regional Survey of Chinese Copyright-Based industry

China, with a vast territory, displays both uneven regional economic growth and rich cultural diversity. Chinese copyright-based industry therefore takes on fairly distinctive regional characteristics. To study the copyright-based industry in different provinces plays a significant role in finding out the development law of the copyright-based industry and unveiling the industrial layout of the copyright sector. Apart from that, it cannot only make an important supplement to state-level macro-research in this field but also better reflect the regional diversity in the development of the copyright-based industry. So in this study, a preliminary investigation on copyright-based industry in some provinces will be carried out. However, due to limited time, inadequate funding and insufficient staff, this study marks just a beginning in this area.

<sup>72</sup>Lv Jimin, “Analysis on the Integration of the Chinese Museum with the World”. *Beijing Museum*. The author is the research staff with the Palace Museum and Chief of Museum Experts Group of the State Administration of Cultural Heritage.

## Questionnaire used in the pro-phase study

### Survey on Economic Contribution of Chinese Copyright-Based Industries

#### Questionnaire

1. This survey constitutes an essential part of the “Research Project on Economic Contribution by Chinese Copyright-Based Industry” jointly conducted by the State Copyright Bureau and the World Intellectual Property Organization. It aims to find out the current scale, basic situation of Chinese copyright-based industry as well as its contribution to national economies.
2. Please have the questions in the first three pages answered by the staff in your company and with relevant knowledge; the “Survey on the Copyright Knowledge of the Workers in the Copyright-based industry” on page 4, attached in a single page, can be photocopied and filled in by anyone of your company.
3. We shall properly store the information provided, and keep it confidential based on relevant laws and regulations of the state.
4. Once you have any problem while filling in the questionnaire, please do not hesitate to contact us:  
contact person: (omitted)  
telephone: (omitted)  
email address: (omitted)  
mailing address: (omitted)  
zip code: (omitted)

**Thanks for your cooperation!**

Serial No. of the Questionnaire: B— —

Designed by: Project Team for Copyright-based Industry Research, State Copyright Bureau

Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Completion time: \_\_\_\_\_

#### **Part 1: Basic information of the corporation**

Corporation Name: \_\_\_\_\_ Legal Person: \_\_\_\_\_

Registration Type (consistent with business license): \_\_\_\_\_

Business Type: Corporation’s headquarters (headquarters, head store, head institute)

Corporation’s subsidiaries (sub-divisions, sub-plants, sub-stores, sub-institutes)

Registration Time: \_\_\_\_\_ Registration Amount: \_\_\_\_\_

Main business or major products: \_\_\_\_\_

Annual output value: \_\_\_\_\_

Total fixed assets: \_\_\_\_\_ Number of employees: \_\_\_\_\_

Company location: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Zip Code: \_\_\_\_\_



## Part 2: Evaluation of copyright activities

(Please answer the following questions. As to those with choices provided, please choose the one that best matches the current situation of your company and put a tick (✓) before your choice.)

### 1. Copyright activities

In the products and services offered by your company, which copyright activities (including designing, purchasing, drawing and making of the following inventive items) are involved?  
(multiple choices allowed)

- Pattern                       Design                       Style  
 Art modeling                       Music                       Others (please specify) \_\_\_\_\_

### 2. Income from copyright activities

Your company's annual operating income from those copyright activities listed in question No.1:

In 2004, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total income.

In 2005, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total income.

In 2006, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total income.

In 2007, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total income.

### 3. Expenditure for copyright activities

Your company's annual expenditure for those copyright activities listed in question No.1:

In 2004, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total expenditure.

In 2005, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total expenditure.

In 2006, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the totalIn 2007, it is \_\_\_\_\_ accounting for \_\_\_\_\_% of the total expenditure.

### 4. Staff involved in copyright activities

In your company, the number of those fulltime staff specializing in those copyright activities listed in question No.1:

In 2004, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2005, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2006, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2007, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In your company, the number of those part-time employees exclusively engaging in those copyright activities listed in question No.1:

In 2004, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2005, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2006, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

In 2007, it is \_\_\_\_\_ their wages and expenses accounting for \_\_\_\_\_% of that of all the employees.

### 5. On dealing with copyright violations

(1) Have the products and services provided by your company ever been copied, imitated or illegally reproduced?

- yes     no

(2) If yes, (if no, please skip to next question)

Losses are:

- Minor enough to be ignored                       Serious, with economic losses amounting to \_\_\_\_\_%

Please imagine what measures you will take:

- just let it go                                       negotiate
- turn to relevant authorities for help    sue

If you are going to turn to relevant authorities for help, which of the following will you choose?

- Copyright Bureau                                       Bureau of Cultural Affairs
- Bureau of Press and Publication                       Intellectual Property Office
- Public Security Bureau                                       Administration for Industry and Commerce
- other (please specify) \_\_\_\_\_

(3) If your company hasn't met such problems yet, Please imagine what measures you will take:

- just let it go                                       negotiate
- turn to relevant authorities for help    sue

If you are going to turn to relevant authorities for help, which of the following will you choose?

- no idea     Administration for Industry and Commerce
- Bureau of Press and Publication                       Intellectual Property Office
- Public Security Bureau                                       Bureau of Cultural Affairs
- Copyright Bureau     other (please specify) \_\_\_\_\_

(4) Does your company have specialized staff and organizations to cope with such problems?

- yes                       no

(5) If yes, the number of the staff is \_\_\_\_\_, and the names of the organizations are \_\_\_\_\_.

6. Evaluation of copyright performance

How much influence, do you think, those copyright activities listed in the question No.1 have exerted on your company's performance?

- no influence     minor enough to be ignored
- some influence, taking up \_\_% of the company's performance

Additional explanations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*"Survey on the Copyright Knowledge of the Workers in the Copyright-Based Industry"*

1. Do you know what is copyright?  
 yes                       no
2. Where did you learn the concept of copyright (authorship)? (multiple choices allowed)  
 newspaper    books and periodicals    TV  
 radio    internet    other (please specify) \_\_\_\_\_
3. Have you ever bought or used any pirated products?  
 yes                       no



## Questionnaire used in the latest study (the example of museums)

### A Letter to the Museum to be surveyed

#### *Museum:*

In order to find out the contribution made by the copyright industry to national economies, the State Copyright Bureau and the World Intellectual Property Organization now are jointly conducting "Research Project on Economic Contribution by Chinese Copyright Industry".

According to the regulations of Chinese Copyright Law, works of Chinese citizens, legal persons or other organizations, whether published or not, shall enjoy copyright. For the purpose of this Law, the term "works" includes works of literature, art, natural science, social science, engineering technology and the like which are created in the following forms: written works; oral works; musical, dramatic, quyi and choreographic works; Works of fine art and photographic works; cinematographic, television and video-graphic works; drawings of engineering designs and product designs, and descriptions thereof; maps, sketches and other graphic works; computer software; other works as provided for in law and administrative rules and regulations. The copyright industry covers all or some activities pertaining to the above-mentioned works or other industries regarding the objects protected by copyright. These activities consist of creation, producing, performing, broadcasting, spreading, exhibiting, distributing and selling.

The museum industry is an important component of the copyright industry. The copyright activities of a museum generally encompass the following aspects: some exhibits of the museum and still within the protection period, such as photographic works, art works, film productions, etc. digital pictures and images of the museum itself or relevant to the exhibits; antique catalog of the museum's collections and the design of the exhibition; related publications published by the museum; cultural commodities developed by the museum itself and displaying its unique characteristics. The present survey aims to find out the proportion of the income and expenditure from carrying out the aforementioned activities in the total income and expenditure of your museum, and the copyright knowledge of the workers engaging in these copyright activities as well. Please fill out the questionnaire truthfully.

**Thanks for your cooperation!**

### Project Team for Chinese Copyright-based Industry Research

#### *Questionnaire on the Museum Industry*

Please have this questionnaire filled out by workers in your museum and with relevant knowledge. We shall properly store your information and keep it in strict confidentiality according to the state laws and regulations concerned. You can contact us at: (omitted). Thanks for your great help!

Serial No. of the Questionnaire: B— —

Designed by: Project Team for Copyright Industry Research, the State Copyright Bureau

Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Completion time: \_\_\_\_\_

**Part 1: Basic information of the corporation**

Company Name: \_\_\_\_\_ Legal Person: \_\_\_\_\_

Company Location: \_\_\_\_\_

Major exhibits of the museum: \_\_\_\_\_ Registration Type: \_\_\_\_\_

Business Type:  enterprise  public institution  social organization

other organization

Registration Time: \_\_\_\_ Annual output value: \_\_\_\_

Number of employees \_\_\_\_

**Part 2: Evaluation of copyright activities**

1. The influence of copyright on the company's operation is  
(Please choose one from the following)  significant  medium  very little
2. Income and expenditure generated from copyright activities  
The ratio of the annual income and expenditure generated from the museum's copyright activities in its annual total income and annual total expenditure:  
In 2004, annual income takes up \_% of the total; annual expenditure \_% of the total.  
In 2006, annual income takes up \_% of the total; annual expenditure \_% of the total.  
In 2008, annual income takes up \_% of the total; annual expenditure \_% of the total.
3. Workers engaging in copyright activities  
In your company, the number of those engaging in copyright-related activities is \_\_\_\_.
4. Evaluation of copyright performance  
The proportion of the performance brought by the copyright activities listed in question No.1 in the company's total performance:  
In 2004, it is \_%; in 2006, \_%; in 2008, \_%.



# Regional Survey Report on Copyright-Based Industry

## Survey Report of Hebei Province (excerpt)

From July 21<sup>st</sup> to August 6<sup>th</sup> 2008, the project team went to Hebei Province to investigate copyright industries there. During this period, the project team, through arranging meetings and informal discussions, distributing questionnaires and carrying out city visits as well as interviews, has studied more than 10 copyright industries in nine cities, covering inside painting, new year painting, stone carving, acrobatics, paper cutting, ceramics, glass, furniture, flower paper (ceramic), textile, printing and dyeing, animation, etc.

The investigation of copyright industries in the Hebei Province reveals the basic situation of these industries there.

### 1. Folk Art Industry

Hebei's folk art has a long history. It has rich content, displaying distinctive local characteristics and profound cultural traditions as well. These splendid folk arts reflect valuable humanistic spirit and some of them, large in size, have even developed their own sectors which play a significant role in promoting local economic development. The project team made a thorough study of, in particular, Hengshui Inside Painting, Wuqiang New Year Painting, Wuqiao Acrobatics, Quyang Stone Carving and Wei County Paper-cut.

Inside painting art refers to the delicate pictures, with wonderful brushwork and brilliant colors, which are backhand-drawn with a tailor-made thin deformable pen inside blank pots made of glass, crystal, amber and other materials. It can be described as "a limited space, a boundless world". It is unique to China as a traditional art form. Inside painting art distinguishes four major schools: Beijing, Hebei, Shandong and Guangdong. The inside painting of Guangdong School originates from Hengshui. The inside painting art in Hengshui, with its uniqueness, was approved by the State Council as the first-batch of national intangible cultural heritage. At present, the inside painting art of Hebei school, among the four schools, has become the most influential one with the highest-level skill, the most comprehensive varieties, the largest scale and the fastest development. Hengshui City has built the Exhibition Hall of Hometown of Inside Painting Art of China and established the "Inside Painting Association of Hebei School" with more than 40, 000 people employed there. It has developed into an inside painting art industry with an annual output value reaching almost 1 billion RMB.

Wuqiao County in Cangzhou City is a world-famous place for acrobatics. After a long historical succession, it has become the only regional cultural phenomenon in China or even all over the world. This county consists of 473 administrative villages, each of which has its own acrobatic actors. The number of professional acrobatic villages, each of which has more than 50 households of acrobatic actors, has amounted to 110. Acrobatic show industry is flourishing. In the whole county, now, there are more than 100 troupes of various kinds, 76 of which have more than 40 actors, tens of thousands of people are employed and the annual income from all the shows is reaching more than 50 million RMB. The "China Wuqiao International Acrobatics Art Festival" named after the famous birth place of Wuqiao has been held nine times. It has become one of the three greatest arenas in the acrobatics field of the world, on the same level as the "Tomorrow and Future" International Acrobatics Festival and Monte Carlo International Circus Festival. It is even called the "Grand Oriental Acrobatics Playing Arena". The increasingly popular acrobatic art has driven the development of related industries, brought along the employment of more than 10 thousand people and generated annual income valued at hundreds of millions yuan in a both direct and indirect way.

The renowned Quyang Carving can date back to more than 2000 years ago. In 1995, the State Council named Quyang "Hometown of Chinese Carving"; in 2006, "Quyang Stone Carving" was authorised as the first-batch of national intangible cultural heritage. In the past few years, Quyang Carving has made great progress and become the symbol and pillar industry of Quyang. Their sculptures are mainly stone carvings, which have expanded to cover jade carving, wood carving, root carving, tooth carving, clay carving, breeze carving, stainless steel carving and others. The number of towns with characteristic carvings has increased from one to nine; people employed in this industry increased from several thousand to 50 thousand; carving enterprises reached as many as more than 2300. Now the annual output value generated by this industry has amounted to 1 billion RMB and its carving products have been exported to more than 80 countries and regions.

Paper-cut of Wei County, Zhangjiakou city, is the only halftone paper-cut art, which gives priority to concave carving and secondary thought to convex carving and well-known for its meticulous cutting and brilliant colors. Today, in this county, there are 280 thousand people from more than 90 villages and 16 towns engaging in the paper-cutting work. There are professional paper-cutting villages: close to 30, professional households: more than 1100, private paper-cutting factories: over 100, various types and different classes of art craftsmen: exceeding 50 and annual production of paper-cuts reaching 3 million sets. More than 2600 types of paper cuts have been sold to over 40 countries and regions, bringing about sales avenue valued at more than 30 million RMB.

## ***2. Porcelain, Glass, Textile and Other Traditional Industries***

Porcelain, glass and textile belong to partial copyright industry. The project team has made a comprehensive investigation of Tangshan porcelain, Qinghuangdao glass, Shijiazhuang textile and Handan color paper industries, which have a long history and comparatively large scale.

Tangshan has been enjoying the reputation of "Northern Porcelain Capital" for a long time. There was once a time, approximately from 1980s to 1990s, when Tangshan porcelain developed at a surprising speed. During that period, the age-long porcelain industry there managed to lead Chinese porcelain market and its porcelain products were distributed all over the country, constantly in short supply. In recent years, the porcelain industry of Tangshan has developed slowly and generated less operation income than before. There are many reasons, but among them, the fatal one is that it has no brands of its own and its designing skills are poor. The average exchange cost for Chinese single-piece porcelain product has hovered around 020 to 025 dollar for many years. The exporting of Tangshan porcelain has maintained only a slight amount of profit for consecutive years. Tangshan porcelain products have been exported to other countries of the world but a great number of them have to be stuck another brand on for sales. The designing skills of Tangshan porcelain also lags far behind the world. Tangshan now only has two state-level master ceramists.

Qinghuangdao City is the birth place of Chinese glass industry. It currently is Chinese largest glass production base. It occupies the advanced position in glass industry in production scale, product diversity and technology. China Yaohua Glass Group (formerly named Qinhuangdao Yaohua Glass Factory), established in 1922, is reputed as "Cradle of China Glass Industry". At present, its float glass production and glass export volume rank as first in the industry. This group is not mainly oriented towards producing art and decorative glass. Compared with the professional production of glass like building or automobile glass which demand high-end technology, the technological threshold is not high for art and decorative glass production. Nowadays, many small-scale processing factories are independently manufacturing art and decorative glass after buying all the raw materials needed. Yaohua, the century-old plant, is also confronted with problem regarding transforming from institution to enterprise and how to stimulate vitality and seek innovative development.

The textile industry of Shijiazhuang is relatively well-developed. Shijiazhuang Changshan Textile Co. Ltd. is the pioneer of Chinese textile industry. It is one of the top 50 enterprises in this industry and meanwhile a state-holding large-scale backbone enterprise. Its products are exported to over 60 countries and regions of the world; especially its cotton fabric products enjoy great fame in the market both at home and abroad.

The result of the survey indicates that these industries, most of which are labour-intensive, play an important role in easing employment pressure, enabling lay-off workers to be employed again and taking up rural surplus labour force in addition to making contribution to the GDP. At the same time, these industries are closely related to copyright innovation, hence the need for such age-old folk arts as inside painting, new year painting, stone carving, acrobatics and paper cuts to be renewed continuously to meet people's incessantly changing aesthetic needs, and so that they can maintain lasting vitality and hold a broad market. Since the production technique of ceramic, glass, home textile and other industries need no advanced technology any more, only those with unique modeling, beautiful designs and meticulous workmanship can stand the fierce competition of the market. Unfortunately, except a small number of large enterprises, many medium- and small-sized companies have not much awareness of the need to make innovations. Instead they are copying and imitating each other's products, or even irresponsibly producing inferior goods to deceive consumers. This problem still widely exists. What's more, the majority of enterprises are still positioned as "process factories" with high consumption, high pollution and low added value.

## References

### Chinese references

- [1] World Intellectual Property Organization: Research Guide on the Economic Contribution by Copyright Industry, 1<sup>st</sup> ed, Beijing: Law Press, 2006.
- [2] Department of National Accounts, National Bureau of Statistics of China: "Chinese Economic Census to Annual GDP Accounting Method", 1<sup>st</sup> ed, Beijing: China Statistics Press, 2007.
- [3] Office of the Leading Group of the State Council for the First National Economic Census: China Economic Census Yearbook 2004, Beijing: China Statistics Press, 2006.
- [4] National Bureau of Statistics of China: China Economic Census Yearbook 2005, Beijing: China Statistics Press, 2005.
- [5] National Bureau of Statistics of China: China Economic Census Yearbook 2006, Beijing: China Statistics Press, 2006.
- [6] National Bureau of Statistics of China: China Economic Census Yearbook 2007, Beijing: China Statistics Press, 2007.
- [7] National Bureau of Statistics of China: "China Economic Census Yearbook 2008", Beijing: China Statistics Press, 2008.
- [8] Customs Duties Collection and Control Department, General Administration of Customs of the People's Republic of China: the Regulation on Customs Statistics of the People's Republic of China 2009, Beijing: China Customers Press, 2009.
- [9] Chinese Association of Printing and Printing Equipment Industry & Chinese Graphic Arts Annual Press: Chinese Graphic Arts Annual 2005, Beijing: Chinese Graphic Arts Annual Press, 2005.
- [10] Chinese Association of Printing and Printing Equipment Industry & Chinese Graphic Arts Annual Press: Chinese Graphic Arts Annual 2006, Beijing: Chinese Graphic Arts Annual Press, 2006.
- [11] Chinese Association of Printing and Printing Equipment Industry & Chinese Graphic Arts Annual Press: Chinese Graphic Arts Annual 2007, Beijing: Chinese Graphic Arts Annual Press, 2007.
- [12] National Bureau of Statistics of China & Ministry of Science and Technology: China Statistical Yearbook on Science and Technology 2006, Beijing: China Statistics Press, 2006.
- [13] National Bureau of Statistics of China, National Development and Reform Commission & Ministry of Science and Technology: China Statistical Yearbook on High Technology 2006, Beijing: China Statistics Press, 2006.
- [14] Ministry of Industry and Information Technology of the People's Republic of China: Statistical Annual Report on Chinese Communications 2005, Beijing: Posts & Telecom Press, 2006.
- [15] Ministry of Commerce of the People's Republic of China: China Trade in Services Report 2006, Beijing: China Commerce & Trade Press, 2006.
- [16] Zheng Chengsi: Chinese Intellectual Property Law, 3<sup>rd</sup> ed., Beijing: Law Press, 2003.
- [17] Zheng Chengsi: Copyright Law in China (revised version), Beijing: China Renmin University Press, 1997.
- [18] Richard A. Posner: Economic Analysis of Law, trans. by Jiang Zhao K and proofread by Lin Yifu, 1<sup>st</sup> ed., Beijing: Encyclopedia of China, 1997
- [19] Richard A. Posner: Law and Literature, trans. by Li Guoqing, Beijing: China University of Political Science and Law.
- [20] Donald A. Wittman: Economic Analysis of the Law: selected readings, Trans. by Suli etal, 1<sup>st</sup> ed., Beijing: Law Press, 2006.

- [21] Suli (chief editor): Law and Social Sciences, 3 vols, Beijing: Law Press.
- [22] Suli: Posner and Others, Beijing: Law Press, 1<sup>st</sup> ed., Mar,2004.
- [23] Paul Goldstein: International Copyright, trans. by Wang Wejuan, China Labor and Social Security Publishing House, 2003.
- [24] Weng Dingjun: Data Processing in Social Quantitative Research—Principle and Method, Shanghai: Shanghai University Press.
- [25] Chen Xiangming (Chief editor): Learning to do Qualitative Research in Action, Education Science Press.
- [26] Earl Babbie: The Practice of Social Research, trans. by Qiu Zeqi, 1<sup>st</sup> ed., Huaxia Publishing House, 2005.
- [27] Feng Xiaotian: Social Research Methods, 2<sup>nd</sup> ed., China Renmin University, Feb 2005.
- [28] Reh binder: Copyright Law, trans. by Zhang Enming, Law Press, 2005.
- [29] Cheng Fenglan & Lv Jingwei (chief editor): Evolution and Trade of Western Copyright, Henan People Publishing House, 2004.
- [30] Zhang Xiaoming, Hu Huilin & Zhang Jiangang (chief editor): Annual Report on the Development of Chinese Culture Industry 2005, Beijing: Social Sciences Academic Press, 2005.
- [31] Cui Baoguo (chief editor): Annual Report on the Development of Chinese Media Industry 2006, Beijing: Social Sciences Academic Press, 2006.
- [32] Hao Zhensheng (chief editor): Annual Report on the Development of Chinese Publishing Industry 2006-2007, Beijing: China Book Press, 2007.
- [33] Hao Zhensheng (chief editor): Annual Report on the Development of Chinese Publishing Industry 2007-2008, Beijing: China Book Press, 2008.
- [34] Department of Book Publication Administration, General Administration of Press and Publication: Annual Report on the Development of Chinese Book Publishing Industry 2003-2004, Beijing: China Renmin University Press, 2006.
- [35] Department of Book Publication Administration, General Administration of Press and Publication: Annual Report on the Development of Chinese Book Publishing Industry 2005-2006, Beijing: China Renmin University Press, 2008.
- [36] Hao Zhensheng (chief editor): Annual Report on the Development of International Publishing Industry 2008, Beijing: China Book Press, 2008.
- [37] Hao Zhensheng (chief editor): Annual Report on the Chinese Digital Publishing Industry 2005-2006, Beijing: China Book Press, 2007.
- [38] Hao Zhensheng (chief editor): Annual Report on the Chinese Digital Publishing Industry 2007-2008, Beijing: China Book Press, 2008.
- [39] Ye Lang (chief editor): Annual Report on the Development of Chinese Culture Industry, Changsha: Hunan People Press, 2004.
- [40] Research Institute of Culture Industry, Peking University & Culture Industry Innovation and Development Academe: Annual Report on the Development of Chinese Culture Industry 2005, Changsha: Hunan People Press, 2005.
- [41] Research Institute of Culture Industry, Peking University & Culture Industry Innovation and Development Academe: Annual Report on the Development of Chinese Culture Industry 2006, Changsha: Hunan People Press, 2006.
- [42] Zhang Xiaoming, Hu Huilin & Zhang Jiangang (chief editor): Annual Report on the Development of Chinese Culture Industry 2007, Beijing: Social Sciences Academic Press, 2007.

- [43] Zhang Xiaoming, Hu Huilin & Zhang Jiangang (chief editor): Annual Report on the Development of Chinese Culture Industry 2008, Beijing: Social Sciences Academic Press, 2008
- [44] He Zhenhu & Zhang Junchang (chief editor): Blue Book on Chinese Radio & TV Brand 2005, Beijing: China Radio & Television Publishing House, 2006.
- [45] Census Center, National Bureau of Statistics: the Data of Tertiary Industry of the People's Republic of China, Beijing: China Statistics Press, 2000.
- [46] Cui Baoguo (chief editor): Annual Report on the Development of Chinese Media Industry 2004-2005, Beijing: Social Sciences Academic Press, 2005.
- [47] Li Pin (chief editor): Annual Report on the Development of Chinese Periodical Industry No.1: Market Analysis and Method Searching, Beijing: Social Sciences Academic Press, 2005.

### English References

- [48] Stephen E. Siwek Copyright Industries in the US Economy
- [49] WIPO National Studies on Assessing the Economic Contribution of the Copyright-Based Industries (WIPO Publication No624e 2006)
- [50] Performance of Copyright Industries in Selected Arab Countries Egypt Jordan Lebanon Morocco Tunisia ( WIPO Publication No916E 2003)
- [51] Japan Copyright Institute Copyright White Paper – A view from the perspective of copyright industries
- [52] The Economic Importance of Copyright, published by The Common Law Institute of Intellectual Property
- [53] The Contribution of Copyright and Related Rights to the European Economy





# **ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN FINLAND 2005 – 2008**



**FINNISH COPYRIGHT SOCIETY**  
Finnish Copyright Institute

**MINISTRY OF EDUCATION  
AND CULTURE**

**TURKU SCHOOL OF ECONOMICS**  
Business and Innovation Development BID

## **ECONOMIC IMPORTANCE OF COPYRIGHT-BASED INDUSTRIES IN FINLAND 2005 – 2008**

The study was commissioned in co-operation by the Finnish Ministry of Education and Culture and the Finnish Copyright Society, it was carried out by Business and Innovation Development BID, at Turku School of Economics. Mr. Mikko Grönlund, Head of Research, Mr. Veijo Pönni and Mr. Timo E. Toivonen, Researchers, and Mr Petteri Sinervo, Head of Development, were responsible for the practical implementation of the study under the supervision of Professor Antti Paasio, Director of the School.

### **THE FINNISH COPYRIGHT SOCIETY**

Suomen Tekijänoikeudellinen Yhdistys ry  
Upphovsrättsliga Föreningen i Finland rt  
Established 1965

The Finnish Copyright Institute was founded in 1993 as a library, information service, research and publication division within the Finnish Copyright Society.

© 2010 The Finnish Copyright Society and  
The Finnish Copyright Institute

ISSN 1237-5071  
ISBN 978-952-9855-28-5  
Publications No 29 (2010)

## Executive Summary

---

Copyrighted works have important social and cultural functions in contemporary societies. Works protected by copyright and industries that exploit copyrighted materials are also important factors from an economic perspective. Copyrighted works contribute to their surrounding economy during the process in which they are created, reproduced, distributed and used. Hence, it can be stated that the creation of a work is merely the starting point in its exploitation as it can also act as an input for other activities. Recent studies have even shown that the economic contribution of the so-called copyright-based industries can exceed that of traditional industries.

The purpose of the present study was threefold:

- To measure the economic contribution of copyright-based industries to the Finnish economy in 2005, 2006, 2007 and 2008.
- To provide insight into the World Intellectual Property Organization (WIPO) methodology employed in this measurement.
- To compare Finnish findings to the results of similar studies completed in other countries.

The key findings and conclusions of the study include the following:

- The combined value added of copyright-based industries represented 4.73 percent of the Finnish gross domestic product (GDP) in 2008 and amounted to €8.72 billion.
- The combined number of employees in the copyright-based industries amounted to 129,496 and represented 5.12 percent of total employment in Finland.
- From the year 2000 to the year 2008 the economic contribution of core copyright industries has shown a moderate but clear growth.
- The combined value added of core copyright industries represented 3.70 percent of the Finnish GDP in 2008 (3.28 percent in 2000) amounting to €6.82 billion.
- Compared to the Finnish GDP growth of 17 percent between 2005 and 2008, the value added of core copyright industries in absolute terms grew by 20 percent.
- In 2008, the two largest core copyright industries, software and databases, and press and literature, accounted for approximately 80 percent of the cumulative value added of the core copyright industries in Finland.
- From 2005 to 2008, the most prominent growth in value creation in core copyright industries took place in the software industry and in advertising whereas the relative contribution of the printing and publishing industry decreased.
- The relative proportion of workforce in the core copyright industries increased slightly during the same period. The total number of employees in the core copyright industries increased by 8.4 percent, while the employed labour force in Finland grew by 3.6 percent.
- In 2008, the interdependent copyright industries had a combined value added of €875 million (0.47% of GDP) and employed 10,933 employees (0.43 % of the total labour force).
- Production and sales in the paper industry amounted to 70 percent of the total value added of the interdependent copyright industries in 2008.
- Exports of copyrighted works relating to core copyright industries amounted to €7 085 million in 2008, representing 10.8 percent of Finland's total exports. The respective value of the imports was €4,754 million, which amounted to 7.6 percent of total imports. This produced a trade surplus of €2,331 million.
- Exports relating to interdependent copyright industries totalled €2,961 million in 2008. Approximately 75 percent of the total value of exports was attributable to the paper industry.
- The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries has enabled a very useful increase in the comparability of studies made in different countries. Further development of the methodology through international cooperation and national research will allow to even more accurately capture the economic contribution of copyright-based industries and harmonise research methods to allow latter comparisons. Finland ranks high when it comes to the contribution of the core copyright industries but lower in terms of overall copyright contribution due to the various copyright factors applied in the national research.

## Table of Contents

---

<b>Executive Summary</b>	<b>125</b>
<b>1. INTRODUCTION</b>	<b>129</b>
<b>2. THE COPYRIGHT-BASED INDUSTRIES AND THE METHODOLOGY OF THE STUDY</b>	<b>131</b>
2.1 The Copyright-based Industries	131
2.2 Establishing of Copyright Factors	132
2.3 Collection of Data	135
<b>3. THE ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN FINLAND</b>	<b>136</b>
<b>4. COLLECTIVE MANAGEMENT ORGANISATIONS</b>	<b>146</b>
<b>5. CROSS-BORDER FLOW OF COPYRIGHT REMUNERATIONS</b>	<b>148</b>
<b>6. INTERNATIONAL COMPARISON</b>	<b>151</b>
<b>7. CONCLUSIONS</b>	<b>155</b>
<b>References</b>	<b>157</b>
<b>Appendices</b>	<b>159</b>



## Tables

---

<b>Table 1:</b> Copyright factors of the core copyright industries	133
<b>Table 2:</b> Copyright factors of interdependent copyright industries	133
<b>Table 3:</b> Copyright factors of the partial copyright industries	134
<b>Table 4:</b> Copyright factors of the non-dedicated support industries	134
<b>Table 5:</b> Value added of the copyright-based industries in Finland	138
<b>Table 6:</b> Employees in the copyright-based industries in Finland	140
<b>Table 7:</b> Economic contribution of the copyright-based industries in Finland, 2005	142
<b>Table 8:</b> Economic contribution of the copyright-based industries in Finland, 2006	143
<b>Table 9:</b> Economic contribution of the copyright-based industries in Finland, 2007	144
<b>Table 10:</b> Economic contribution of the copyright-based industries in Finland, 2008	145
<b>Table 11:</b> Royalties collected and distributed by the collective management organisations in 2008	146
<b>Table 12:</b> Ratio between remunerations distributed and royalties collected by copyright societies as a percentage 2005 - 2008	147
<b>Table 13:</b> Core copyright industry related exports 2005 – 2008	148
<b>Table 14:</b> Core copyright industry related imports 2005 – 2008	149
<b>Table 15:</b> Core copyright industry related trade balance in 2008	149
<b>Table 16:</b> Interdependent copyright industry related trade balance in 2008	150
<b>Table 17:</b> Economic contribution of the copyright-based industries using WIPO methodology	151
<b>Table 18:</b> Value added of the copyright-based industries by sub-categories as a percentage of GDP per country	153
<b>Table 19:</b> Employment in the copyright-based industries as a percentage of the total employment per country	154

## Figures

---

<b>Figure 1:</b>	Layers of economic activities related to the production, packaging and distribution of materials protected by copyright and related rights (Sinervo & Picard 2000).	131
<b>Figure 2:</b>	Value added of the copyright-based industries as a share of GDP in %	136
<b>Figure 3:</b>	Value added of the copyright-based industries, in € Million	137
<b>Figure 4:</b>	Contribution of the core copyright industries to the GDP in comparison with other selected industries	137
<b>Figure 5:</b>	Employees in the copyright-based industries as a share of total employment in %	139
<b>Figure 6:</b>	Number of employees in the copyright-based industries	139
<b>Figure 7:</b>	Breakdown of the value added of the core copyright industries into sub-sectors, 2008	141
<b>Figure 8:</b>	Breakdown of the employment of the core copyright industries into sub-sectors, 2008	141
<b>Figure 9:</b>	Core copyright industry related trade balance in 2008	149
<b>Figure 10:</b>	Value added of the total copyright-based industries as percentage of GDP per country	152
<b>Figure 11:</b>	Value added of the core copyright industries as percentage of GDP per country	152
<b>Figure 12:</b>	Employment in the copyright-based industries as a percentage of the total employment per country	153
<b>Figure 13:</b>	Employment in the core copyright industries as a percentage of the total employment per country	154

# 1. Introduction

---

During recent decades intellectual property has received increasing attention in post-industrial economies and it is gradually receiving more attention in developing economies. Intangible factors are regarded as key value-drivers in economies and intangible assets or intellectual capital are estimated to form the essence of many companies' competitive advantage. Materials protected by copyright<sup>1</sup> therefore form an integral part of a company's intellectual assets. As a source of economic activity and wealth the importance of copyright has increased and, due to the increase in digital technology, the scope of the subject matter for copyright protection has expanded. Those factors, together with a rapid increase in the amount of digitised products and services, have boosted the industries and businesses relying on a subject matter protected by copyright. Economists now broadly share the opinion that industrialised economies have transformed into knowledge-based economies and that intangible goods and services form the basis of growth and development.

Copyright is a legal concept that enables the creators of copyright protected materials to exploit economic values related to their creative work. The legislation defines the requirements for an outcome of creative work to be covered by copyright. The legislation also determines the exclusive rights of the creator and specifies the protective instruments that can be used to enforce the copyright owner's rights. The concept of copyright, as well as the protective elements, has been the subject of international treaties for a relatively long time now. The most well-established and important international treaties governing copyrights are the Berne Convention (1886), the Rome Convention (1961) and the TRIPS Agreement (Trade-Related Aspects of Intellectual Property Rights, 1994) of the World Trade Organization. The more recent ones, the WIPO Copyright Treaty (WCT) of 1996 and the WIPO Performances and Phonograms Treaty (WPPT), additionally adjusted the international dimensions of copyright. There are differences between different countries on the issue of copyright legislation. However, the international treaties have harmonised the legislation. Especially when it comes to the core substance, the concept of copyright is considered nearly similarly in different countries and legislations.

Traditionally copyright has been mainly considered and studied from its legal perspective. Legal research has covered areas like the nature of copyright, the scope of its protection and enforcement and infringement. From the business point of view copyright transfers, licensing, international trade with copyright products and copyright investments have received attention from researchers. Research addressing the economic importance or impact of copyright first emerged in the 1970s. The first studies were published in the USA (1977), Canada (1977), Australia (1981), Sweden (1982), the Netherlands (1982) and the UK (1982). Several other studies followed thereafter and research on the economic contribution of copyright has been extended in the 1990s. Currently, over 30 countries around the world have engaged in surveying the economic performance of their copyright sector.

Research addressing the economic contribution of copyright has broadly adopted a similar kind of methodology. Namely identifying industries that are related to or dependent on copyright and then calculating the contribution of those industries to the value added and employment aspects of the economy. However, there were clear differences in the applied methodology, especially as the industries included varied, which made the comparison of the findings difficult. The Finnish Ministry of Education acted as an initiator when, in 2002, the World Intellectual Property Organization (WIPO) launched an initiative to "develop a practical instrument in the form of guidelines, recommendations and survey methods to be considered and applied when undertaking surveys with regard to the size and economic contribution of a nation's creative and information sector; and to establish a basis for comparison of future surveys built on reliable data and common methodologies". The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries was published in 2003. Since then the methodology defined in the WIPO Guide has been widely adopted. (WIPO Guide 2003)

The scope of the WIPO Guide is confined to surveying the economic contribution of copyright-based industries and to providing quantifiable characteristics for this contribution. The WIPO Guide addresses the three main indicators of the size of these industries: the value added generated by them, their share in employment and their contribution to foreign trade. It outlines the methodology of the survey, justifies the choice of indicators,

---

<sup>1</sup>In this study the term copyright is used to cover both the actual copyright and the related or neighbouring rights.

describes their characteristics and elaborates on existing approaches to their measurement. The methodology in the WIPO Guide does not address all economic aspects related to the functioning of copyright. For instance, the economic impact of copyright law itself, measuring the social effects of copyright, the valuation of the copyright assets of enterprises and the assessment of the effects of copyright piracy are left for additional research and methodological development. (WIPO Guide 2003)

The economic contribution of copyright industries has been previously addressed in four studies in Finland: 1984, 1991 (using data from 1988), 2000 (1997 data) and 2008 (using data from 2000, 2003, 2004 and 2005). The first three were published before the WIPO Guide and thus could not exploit its guidelines but they used a similar approach. The last one was published in 2008 and partially used the WIPO guidelines but, in parallel, applied the methodology of the 1997 study and presented two sets of results. The current study will apply solely and fully the WIPO methodology.

The report is structured as follows. Chapter 3 presents the most important findings on the economic volume of copyright industries in terms of value added and employment. The trade balance of copyrighted goods and services is presented in Chapter 4. Chapter 5 presents the findings on Finnish copyright collective management organisations' economic activities. In Chapter 6 the results of this study are compared with findings in other countries. In Appendix 1 is presented detailed information concerning the definition of copyright-based industries and the copyright factors used for this study.

This study was initiated and commissioned by the Finnish Copyright Society and the Ministry of Education and Culture. The purpose of the study is to measure the economic contribution of copyright-based industries from 2005 to 2008 by applying the methodology defined in the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries.

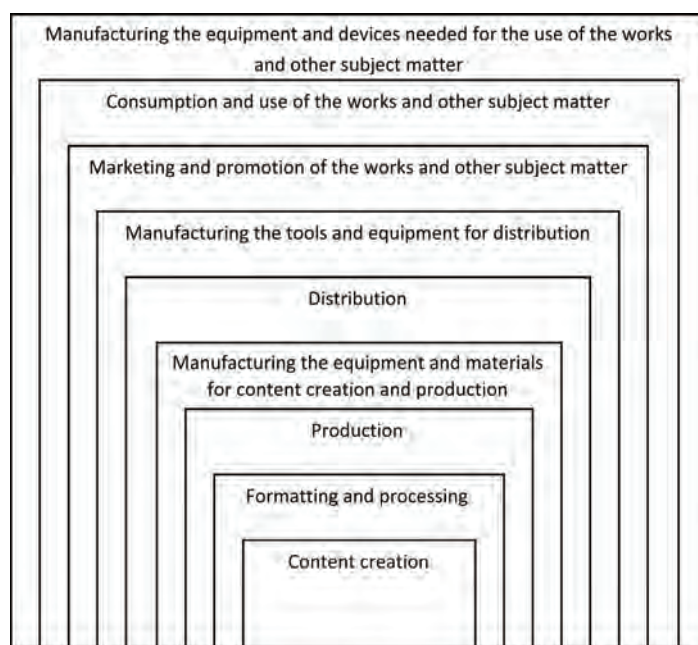
## 2. The Copyright-based Industries and the Methodology of the Study

### 2.1 The Copyright-based Industries

The mental process or creative work needed to produce copyrighted subject matter is the initial act of creating economic value out of copyright protected materials. In a legal sense copyright is a private property right. It contains the right to exclude others from using the property. In addition, the holding of a property right means that copyright protected materials acquire a value which enables it to be measured. It also enables copyright protected materials to be traded and ensures it can be used in all areas of economic life (WIPO Guide 2003).

The creation process of copyright protected materials only forms the basic element relevant for the copyright's economic contribution. The works need to be modified, packaged, reproduced and distributed<sup>2</sup> in order to be used by consumers. When assessing the economic value of copyright one must distinguish between a work which is protected by copyright and the "means of delivery" by which the work appears on the market and is made available for consumption (WIPO Guide 2003). When measuring the economic contribution of copyright protected materials one should include all the activities resulting from the multiple effects of copyright on the economy, those of the creators, the right holders, the distributors, users, equipment manufacturers, advertisers, etc. (WIPO Guide 2003). Figure 1 describes the activities related to the production, distribution and use of copyright protected materials. With respect to the copyright-based industries they can be viewed as layers of economic activities from which the effects of copyright radiate outwards as shown in Figure 1. Obviously the activities related to the production, distribution and use of copyrighted works are not the same for all works. The works are different in nature and different means are needed in both production and use.

**Figure 1: Layers of economic activities related to the production, packaging and distribution of materials protected by copyright and related rights (Sinervo & Picard 2000).**



Defining the copyright-based industries is a primary task when measuring the economic contribution of copyright. This means that one has to decide which industries are going to be studied and then to arrange them into appropriate categories according to the extent to which their activities are based on copyright. The WIPO Guide 2003 categorises the copyright-based industries into four main groups, namely, the core copyright industries, the interdependent copyright industries, the partial copyright industries and the non-dedicated support industries.

<sup>2</sup> The term distribution is used in this study in a technologically neutral way to refer to all distribution, dissemination, diffusion, communication or making available the protected subject matter to the public.



The core copyright industries are industries that are wholly engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter. These industries include, for example, press and literature, motion pictures, recorded music, music publishing, radio and television broadcasting and software.<sup>3</sup>

Interdependent copyright industries are industries that are engaged in the production and the manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of core copyright industry works and other protected subject matter. Examples of industries in this category include the manufacturing, wholesaling and retailing of TV sets and radios, CD and DVD players, computers, musical instruments, photographic instruments, photocopiers, recording material and paper.

The partial copyright industries 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. Industries like textiles and footwear, jewellery, furniture, wall coverings and carpets, toys and games, architecture, engineering and museums represent some of the partial copyright industries.

The non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter whose activities have not been included in the core copyright industries. For example transportation services, telecommunications and wholesale and retail trade fall into this category.

When measuring the economic contribution of copyright industries the core copyright industries are fully included in the calculations. This means that the total contribution of the core copyright industries to the value added and creation of employment are counted in when calculating the total effect of the copyright industries on a country. When it comes to the other three categories only part of their activities are related to copyright protected material. Therefore judgement must be applied when measuring their effect on the national economy. Thus, only the portion which is directly attributable to copyright protected material is included. This is worked out according to so called copyright factors, which are discussed below.

## 2.2 Establishing of Copyright Factors

One challenge of the study was to calculate the contribution of the interdependent, partial and non-dedicated support industries because, unlike the core copyright industries, these industries cannot be fully ascribed to the copyright-based economy. Calculations regarding interdependent copyright industries, partial copyright industries and non-dedicated support industries involve the use of so-called copyright factors, which implies the weighting of the portion of a specific industry that can be attributed to copyright or the level of its dependence on copyright.

Guidelines for shaping copyright factors may be sought from existing studies conducted in other countries. By the year 2009 seventeen other countries (presented in Table 25) had conducted surveys in accordance with the WIPO Guide. Thus, these studies are most likely to be comparable with the results of the Finnish study. Table 25 demonstrates that the available studies are not only carried out in developed economies but also in a number of emerging economies and economies in transition. A major difference is that most developing countries have a limited number of official statistics available and make use of their own surveys and proxies.<sup>4</sup> At the time of this study there were only five studies in European Union countries that followed the WIPO Guide namely Bulgaria, Hungary, Latvia, the Netherlands and Romania. In this study copyright factors are based on the reasoning used and data gained from three national studies in Singapore<sup>5</sup>, Hungary<sup>6</sup> and the Netherlands.<sup>7</sup>

<sup>3</sup>A complete list of industries included to the four principal categories is in Appendix 1.

<sup>4</sup>Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) *The Economic Contribution of Copyright Industries to the Netherlands*, SEO Economic Research., SEO Report no. 2008-60.A, p. 13.

<sup>5</sup>To determine its copyright factors researchers in Singapore conducted a survey among 104 companies.

<sup>6</sup>In the Hungarian study researchers used the same copyright factors that were used in the United States in 1990 and adapted them slightly to their national circumstances. It is unclear if the same copyright factors are still used in the United States because the USA does not make the copyright factors used publicly available.

<sup>7</sup>The Dutch study decided to follow Singaporean and Hungarian studies because conducting a national survey is time-consuming and achieving a good response rate is difficult (in Singapore the response rate was only 4%). According to the Dutch study Singapore and Hungary do not differ much in their copyright factors for the partial and non-dedicated industries. Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) *The Economic Contribution of Copyright Industries to the Netherlands*, SEO Economic Research., SEO Report no. 2008-60.A, pp. 26-27.

### 2.2.1 Core copyright industries

It is generally recognized that certain industries are more closely connected to and dependent on copyright than others. Some industries fundamentally exist in order to produce copyright materials<sup>8</sup> for ultimate consumption in local, national and global economies. Therefore one can assume that all core copyright industries' activities are related to copyright-protected products.

**Table 1: Copyright factors of the core copyright industries**

	Copyright factors			
	Finland	The Netherlands	Singapore	Hungary
Press and literature	100%	100%	100%	100%
Music, theatrical productions, operas	100%	100%	100%	100%
Motion picture and video	100%	100%	100%	100%
Radio and television	100%	100%	100%	100%
Photography, visual and graphic arts	100%	100%	100%	100%
Software and databases	100%	100%	100%	100%
Advertising	100%	100%	100%	100%
Copyright relevant organisations	100%	100%	100%	100%

\* A detailed table of the core copyright industries is shown in Appendix 1.

### 2.2.2 Interdependent copyright industries

The Hungarian study took all interdependent industries as 100 percent dependent on copyright based on expert assessments. The Singaporean study used copyright factors that varied between 20 and 35 percent. Including interdependent copyright industries up to 100 percent is less valid in terms of content because some industries in this category clearly have a wider scope than focusing on solely copyright-based activities. The study conducted in the Netherlands used the same copyright factors as the Singaporean study. These studies currently provide the best guidelines. In this study researchers used the same copyright factors that were used in the national studies of Singapore and the Netherlands as this presents a more conservative approach. The copyright factors used are presented in Table 2.

**Table 2: Copyright factors of interdependent copyright industries**

	Copyright factors			
	Finland	The Netherlands	Singapore	Hungary
TV sets , radios, VCRs, CD and DVD players, electronic game equipment	35%	35%	35%	100%
Computers and equipment	35%	35%	35%	100%
Musical instruments	20%	20%	20%	100%
Photographic and cinematographic instruments	30%	30%	30%	100%
Photocopiers	30%	30%	30%	100%
Blank recording material	25%	25%	25%	100%
Paper	25%	25%	25%	100%

\* A detailed table of the interdependent copyright industries is shown in Appendix 1.

### 2.2.3 Partial copyright industries

Hungary's copyright factors per industry varied between 0.5 percent and 50 percent, they had an average of 8 percent. Singapore's copyright factors per industry varied between 0.4 percent and 42 percent, they had an average of 7 percent. The Dutch study used the average values of Hungary and Singapore as its copyright factors. Dutch copyright factors per industry varied between 0.5 percent and 50 percent, they had an average of 7 percent. As there are a lot of social and economic similarities between Finland and the Netherlands the

<sup>8</sup>Towse, Ruth , "Cultural Economics, Copyright and the cultural industry", proceedings from the conference "The Long Run" at Erasmus University, Rotterdam, February 2000, p. 113.

copyright factors of the Dutch study were used in this study. An overview of the national copyright factors of the partial copyright industries can be found in Table 3.

**Table 3: Copyright factors of the partial copyright industries**

	Copyright factors			
	Finland	The Netherlands	Singapore	Hungary
Apparel, textiles and footwear	0.5%/2.7%	0.5%/2.7%	0.4%	0.5%/5%
Jewellery and coins	33.5%	33.5%	42%	25%
Other crafts	41%	41%	42%	40%
Furniture	6.7%	6.7%	8.3%	5%
Household goods, china and glass	0.55%	0.55%	0.6%	0.5%
Wall covering and carpets	1.9%	1.9%	1.7%	2%
Toys and games	46%	46%	42%	50%
Architecture, engineering, surveying	9%	9%	8.3%	10%
Museums	50%	50%	Not included	50%

\* A detailed table of the copyright factors of the partial copyright industries of the Finnish study is shown in Appendix 1.

#### 2.2.4 Non-dedicated support industries

The Hungarian study used a copyright factor of 5.7 percent for all non-dedicated support industries. The Singaporean study used a copyright factor of 6.4 percent. The Dutch study used an average of the Hungarian and Singaporean studies (6.0%) as the copyright factor for all non-dedicated support industries. The copyright factor for the non-dedicated support activities of the Dutch study was used in this study. An overview of the national copyright factors of the non-dedicated support industries can be found in Table 4.

**Table 4: Copyright factors of the non-dedicated support industries**

	Copyright factors			
	Finland	The Netherlands	Singapore	Hungary
All non-dedicated support industries	6.0%	6.0%	6.4%	5.7%

\* A detailed table of the copyright factors of the non-dedicated support industries of the Finnish study is shown in Appendix 1

## 2.3 Collection of Data

The data was predominately collected from corporate annual statement's statistics collected by Statistics Finland.

The turnover is the combined operating income of an industry and the value added is calculated by subtracting the intermediate goods and services from the turnover. The value added therefore represents the value created by the factors of the production of that industry. The number of employees is presented as full time equivalents showing the actual person's years invested in the production in an industry.

The firms are classified under statistical categories according to their main activities. Therefore there are activities within the firms that may vary from the activity according to which they are categorised. There is no external reporting of the value of a firm's activities in different fields. Therefore both the share of the non-copyright related activities of firms in copyright industries and the copyright activities of firms in non-copyright industries cannot be assessed.

Complementary data sources have been used when statistical information has been missing or activities have not been captured in the statistical categories. The use of complementary sources has been conducted in accordance with the WIPO Guide. The chosen complementary data come from sources that are published annually. This has been done for the benefit of the consistency of the time series. The main sources of complementary data have been the Finnish Cultural Statistics, recording industry statistics and collective rights management organisations' statistics. The values of the foreign trade of copyrighted goods and services come from Finnish Foreign Trade Statistics. In some cases, when turnover values have been available but value added values missing, value added estimations have been made using a sample survey of the industry from the Orbis database. The value added has been calculated using the median turnover to value added ratio. However, there are some significant analytical challenges resulting from the current statistical categorisation which makes it difficult to attribute the activities to the relevant copyright activity categories. The implementation of a new European statistical classification (NACE rev. 2 and the national classifications that have been reformed accordingly) will possibly solve some of these issues.

### 3. The Economic Contribution of Copyright-based Industries in Finland

This section presents the figures for the copyright-based industries in Finland. Data from these industries was gathered for the years 2005, 2006, 2007 and 2008 based on the WIPO methodology (Appendix 1). Figure 2 illustrates the development of the value added of the copyright-based industries as a share of the annual GDP for these years.

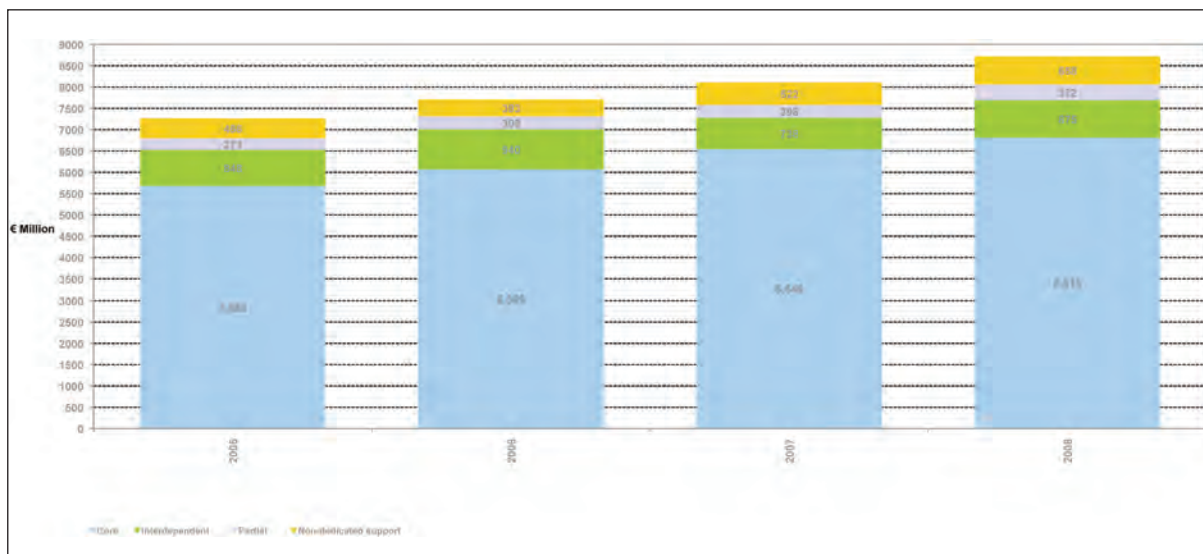
As can be noted, the relative contribution of copyright-based industries to Finnish GDP has not changed notably during the years under examination; while in 2005 this contribution was of 4.62 percent, the respective figure for 2008 was 4.73 percent (Figure 2). The combined value added for copyright-based industries in 2005 was €7.27 billion, the figure for 2008 was €8.72 billion.

**Figure 2: Value added of the copyright-based industries as a share of GDP in %**



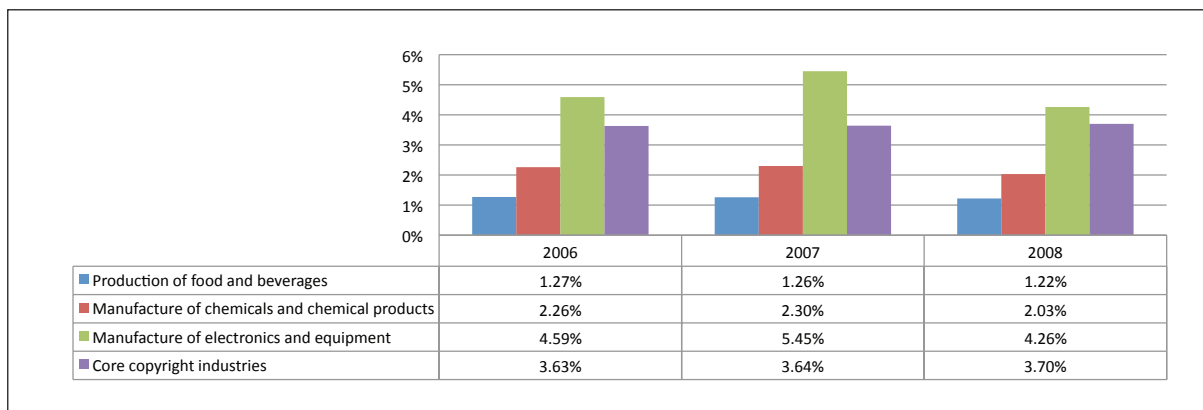


**Figure 3: Value added of the copyright-based industries, in € Million**



The core copyright industries in Finland contribute more to the GDP than the food, metal or machinery industries.

**Figure 4: Contribution of the core copyright industries to the GDP in comparison with other selected industries**

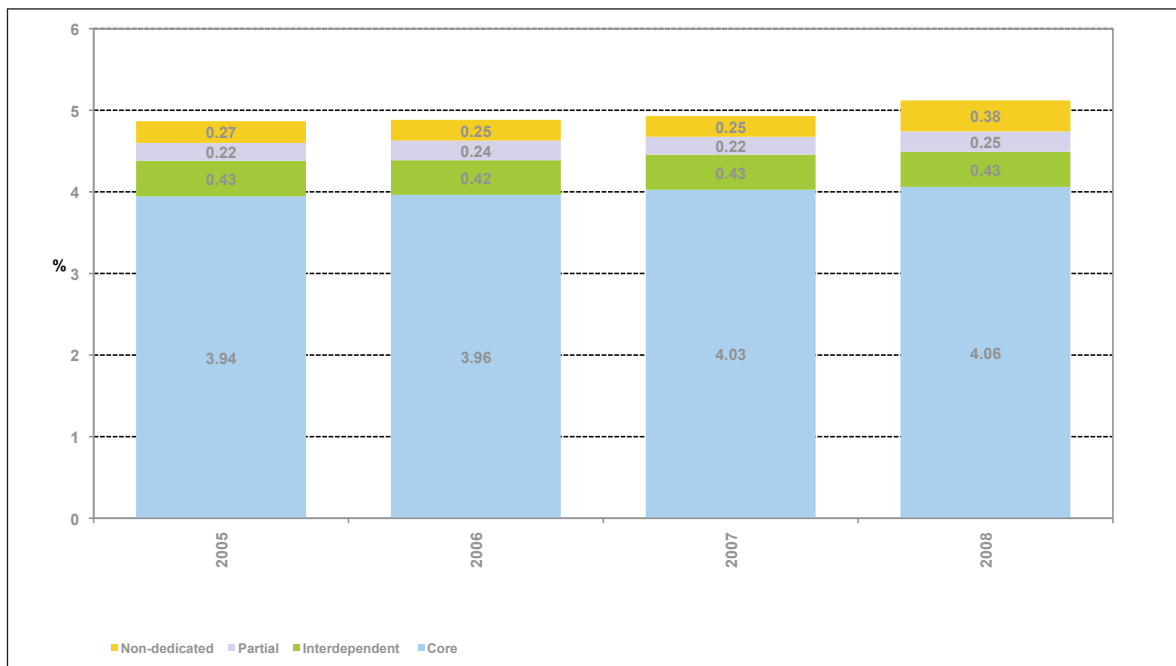


**Table 5: Value added of the copyright-based industries in Finland**

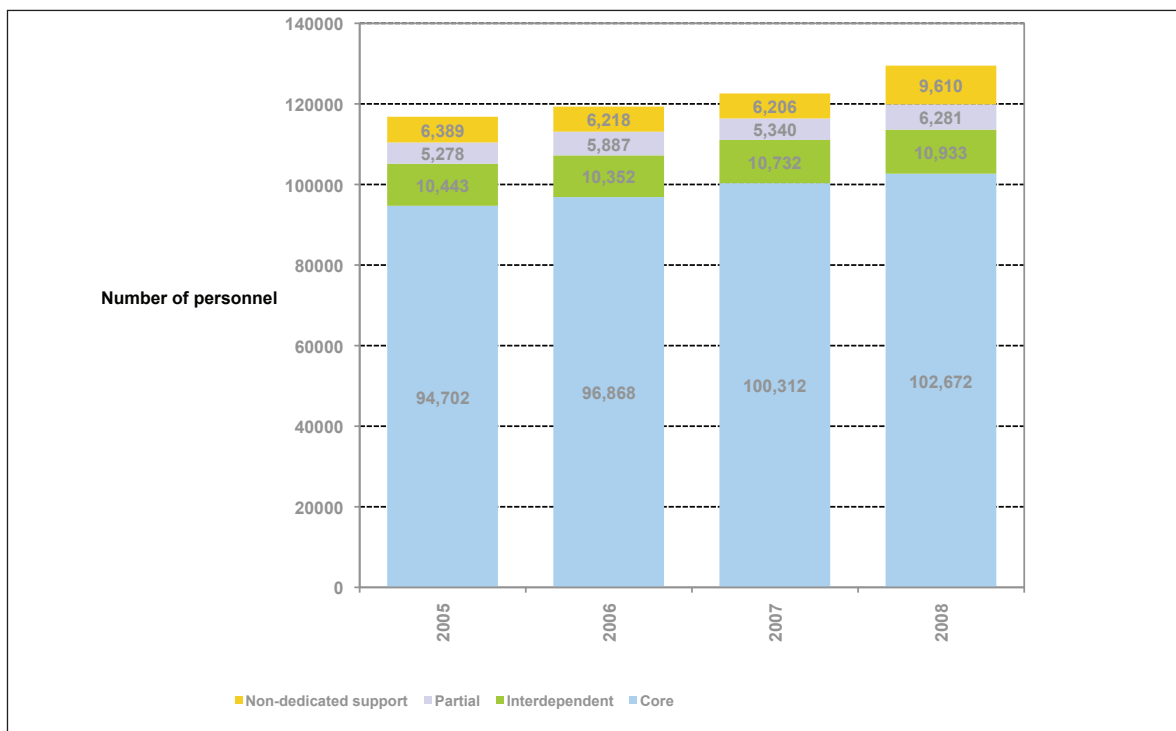
	Contribution to employment (in %)											
	2005			2006			2007			2008		
	Value added as % GDP	Total value added € Million	Value added as % GDP	Total value added € Million	Change in total value added %	Value added as % GDP	Total value added € Million	Change in total value added %	Value added as % GDP	Total value added € Million	Change in total value added %	
Core	3.61	5,680	3.63	6,069	6.8	3.64	6,546	7.9	3.70	6,815	4.1	
Interdependent	0.54	848	0.56	940	10.8	0.41	738	-21.5	0.47	875	18.6	
Partial	0.17	271	0.18	308	13.7	0.17	298	-3.2	0.20	372	24.8	
Non-dedicated	0.30	466	0.24	393	-15.7	0.29	522	32.8	0.36	658	26.1	
Total	4.62	7,265	4.61	7,710	6.1	4.51	8,105	5.1	4.73	8,720	7.6	

The combined number of employees in the copyright-based industries amounted to 116 811 in 2005 (4.87 percent of the total employed workforce). In 2008, the combined number of employees in the copyright-based industries amounted to 129,496 (5.12 percent of the total employed workforce). Figure 5 shows the development of employment in copyright-based industries as their share within the total workforce during the period under examination. The workforce figures were calculated using the copyright factors. Both the total number of employees in copyright-based industries and the relative proportion of this workforce slightly increased between 2005 and 2008. While the total number of employees in core copyright industries increased by 8.4 percent, the employed labour force in Finland grew by 3.6 percent. The activities increasing the relative share of the total workforce of core copyright industries were music, audiovisual, software and databases, and advertising.

**Figure 5: Employees in the copyright-based industries as a share of total employment in %**



**Figure 6: Number of employees in the copyright-based industries**



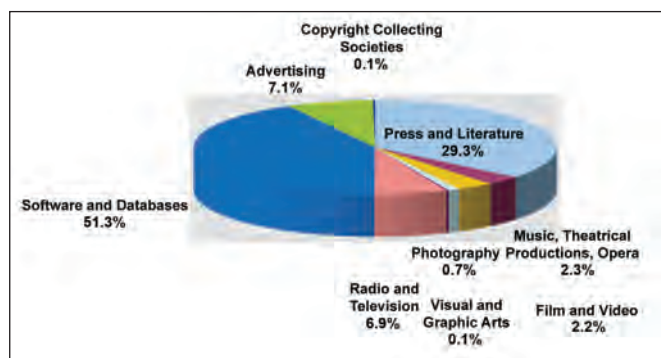
**Table 6: Employees in the copyright-based industries in Finland**

	Contribution to employment (in %)											
	2005			2006			2007			2008		
	Employees as % of total employment %	Total number of employees	Employees as % of total employment %	Total number of employees	Change in total employment %	Employees as % of total employment %	Total number of employees	Change in total employment %	Employees as % of total employment %	Total number of employees	Change in total employment %	
Core	3.94	94,702	3.96	96,868	2.3	4.03	100,312	3.6	4.06	102,672	2.4	
Interdependent	0.43	10,443	0.42	10,352	-0.9	0.43	10,732	3.7	0.43	10,933	1.9	
Partial	0.22	5,278	0.24	5,887	11.5	0.22	5,340	-9.3	0.25	6,281	17.6	
Non-dedicated	0.27	6,389	0.25	6,218	-2.7	0.25	6,206	-0.2	0.38	9,610	54.9	
Total	4.86	116,811	4.87	119,325	2.2	4.93	122,591	2.7	5.12	129,496	5.6	

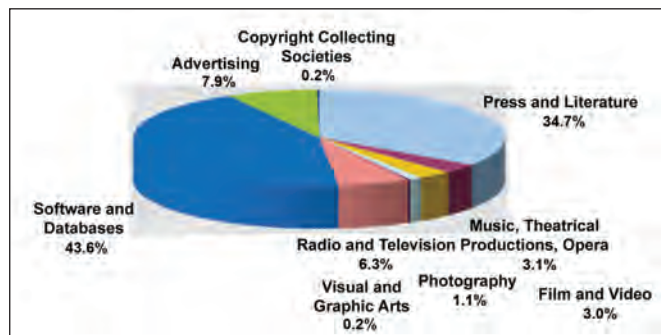
Figure 7 reveals that the total economic contribution of core copyright industries is not evenly distributed between different industries. In 2008, the two largest core copyright industries: software and databases, and press and literature, accounted for approximately 80 percent of the combined contribution of core copyright industries in terms of value added. In 2008, the largest core copyright industry, software and databases contributed the highest value added with 51.3 percent of the core copyright sectors. In second place, in terms of value added (29.3%) was press and literature. These two sub-sectors were followed by radio and television, and advertising for which the value added was approximately 7 percent each.

In 2008 the sub-sector software and databases comprised 44 percent of the total employment of the core copyright sectors. Press and literature accounted for 35 percent, advertising comprised approximately 8 percent and radio and television 6 percent of the total employment of the core copyright sectors.

**Figure 7: Breakdown of the value added of the core copyright industries into sub-sectors, 2008**



**Figure 8: Breakdown of the employment of the core copyright industries into sub-sectors, 2008**





**Table 7: Economic contribution of the copyright-based industries in Finland, 2005**

	Turnover (€ Million)	Value added (€ Million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and literature	4,956	1,991	1.26	36,581	1.52
Music, theatrical productions, opera	393	128	0.08	2,652	0.11
Film and video	415	115	0.07	2,492	0.10
Photography	96	41	0.03	921	0.04
Visual and graphic arts	23	7	0.00	206	0.01
Radio and television	964	412	0.26	6,318	0.26
Software and databases	5,710	2,612	1.66	38,916	1.62
Advertising	1,448	367	0.23	6,435	0.27
Copyright Collecting Societies	78	8	0.01	180	0.01
<b>Total core copyright industries</b>	<b>14,083</b>	<b>5,680</b>	<b>3.61</b>	<b>94,702</b>	<b>3.94</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	556	50	0.03	803	0.03
Computers and equipment	963	135	0.09	1 821	0.08
Musical instruments	16	3	0.00	79	0.00
Photographic and cinematographic instruments	48	5	0.00	109	0.00
Photocopiers	54	13	0.01	240	0.01
Blank recording material	14	1	0.00	36	0.00
Paper	2,813	640	0.41	7,356	0.31
<b>Total interdependent copyright industries</b>	<b>4,464</b>	<b>848</b>	<b>0.54</b>	<b>10,443</b>	<b>0.43</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	57	14	0.01	367	0.02
Jewellery and coins	151	36	0.02	692	0.03
Other crafts	23	7	0.00	211	0.01
Furniture	112	33	0.02	773	0.03
Household goods, china and glass	7	2	0.00	43	0.00
Wall coverings and carpets	3	1	0.00	18	0.00
Toys and games	150	31	0.02	559	0.02
Architecture, engineering, surveying	291	147	0.09	2,615	0.11
<b>Total partial copyright industries</b>	<b>794</b>	<b>271</b>	<b>0.17</b>	<b>5,278</b>	<b>0.22</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	699	116	0.07	2,036	0.08
General transportation	634	244	0.16	3,120	0.13
Telephony and internet	396	106	0.07	1,236	0.05
<b>Total non-dedicated support industries</b>	<b>1,730</b>	<b>466</b>	<b>0.30</b>	<b>6,392</b>	<b>0.27</b>

**Table 8: Economic contribution of the copyright-based industries in Finland, 2006**

	Turnover (€ Million)	Value added (€ Million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and literature	5,077	2,037	1.22	36,065	1.48
Music, theatrical productions, opera	427	127	0.08	2,794	0.11
Film and video	393	123	0.07	2 617	0.11
Photography	103	44	0.03	977	0.04
Visual and graphic arts	19	6	0.00	195	0.01
Radio and television	1,009	415	0.25	6 316	0.26
Software and databases	6,430	2,906	1.74	40,910	1.67
Advertising	1,530	400	0.24	6,811	0.28
Copyright Collecting Societies	80	9	0.01	184	0.01
<b>Total core copyright industries</b>	<b>15,068</b>	<b>6,069</b>	<b>3.63</b>	<b>96,868</b>	<b>3.96</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	486	52	0.03	1,034	0.04
Computers and equipment	981	149	0.09	1,984	0.08
Musical instruments	16	4	0.00	80	0.00
Photographic and cinematographic instruments	66	11	0.01	147	0.01
Photocopiers	77	14	0.01	249	0.01
Blank recording material	11	1	0.00	35	0.00
Paper	3,222	710	0.43	6,823	0.28
<b>Total interdependent copyright industries</b>	<b>4,859</b>	<b>940</b>	<b>0.56</b>	<b>10,352</b>	<b>0.42</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	75	20	0.01	479	0.02
Jewellery and coins	164	40	0.02	780	0.03
Other crafts	26	8	0.00	225	0.01
Furniture	113	34	0.02	764	0.03
Household goods, china and glass	6	2	0.00	42	0.00
Wall coverings and carpets	3	1	0.00	19	0.00
Toys and games	173	39	0.02	812	0.02
Architecture, engineering, surveying	323	164	0.10	2,768	0.11
<b>Total partial copyright industries</b>	<b>882</b>	<b>308</b>	<b>0.18</b>	<b>5,887</b>	<b>0.24</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	697	111	0.07	1,575	0.06
General transportation	671	166	0.10	3,141	0.13
Telephony and internet	395	124	0.07	1,077	0.04
<b>Total non-dedicated support industries</b>	<b>1,763</b>	<b>402</b>	<b>0.24</b>	<b>5,793</b>	<b>0.24</b>

**Table 9: Economic contribution of the copyright-based industries in Finland, 2007**

	Turnover (€ Million)	Value added (€ Million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and literature	4,981	2 006	1.12	36,053	1.45
Music, theatrical productions, opera	552	147	0.08	3,153	0.13
Film and video	471	167	0.09	3,297	0.13
Photography	104	47	0.03	1,014	0.04
Visual and graphic arts	23	6	0.00	197	0.01
Radio and television	1,086	482	0.27	6,481	0.26
Software and databases	7,054	3 206	1.78	42,196	1.69
Advertising	1,616	475	0.26	7,738	0.31
Copyright Collecting Societies	85	9	0.01	184	0.01
<b>Total core copyright industries</b>	<b>15,973</b>	<b>6,546</b>	<b>3.64</b>	<b>100,312</b>	<b>4.03</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	522	64	0.04	1,192	0.05
Computers and equipment	1,231	170	0.09	2,336	0.09
Musical instruments	15	3	0.00	78	0.00
Photographic and cinematographic instruments	67	8	0.00	127	0.01
Photocopiers	79	14	0.01	258	0.01
Blank recording material	11	1	0.00	35	0.00
Paper	3,366	477	0.27	6,706	0.27
<b>Total interdependent copyright industries</b>	<b>5,291</b>	<b>738</b>	<b>0.41</b>	<b>10,732</b>	<b>0.43</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	81	21	0.01	512	0.02
Jewellery and coins	166	29	0.02	576	0.03
Other crafts	0	0	0.00	0	0.00
Furniture	118	34	0.02	720	0.03
Household goods, china and glass	7	2	0.00	42	0.00
Wall coverings and carpets	4	1	0.00	21	0.00
Toys and games	184	27	0.02	500	0.02
Architecture, engineering, surveying	374	183	0.10	2,969	0.12
<b>Total partial copyright industries</b>	<b>935</b>	<b>298</b>	<b>0.17</b>	<b>5,340</b>	<b>0.22</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	798	127	0.07	1 553	0.06
General transportation	669	267	0.15	3 568	0.15
Telephony and internet	337	128	0.07	1 038	0.04
<b>Total non-dedicated support industries</b>	<b>1 804</b>	<b>522</b>	<b>0.29</b>	<b>6 159</b>	<b>0.25</b>

**Table 10: Economic contribution of the copyright-based industries in Finland, 2008**

	Turnover (€ Million)	Value added (€ Million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and literature	5,003	1,995	1.08	35,604	1.41
Music, theatrical productions, opera	532	156	0.08	3,222	0.13
Film and video	510	149	0.08	3,039	0.12
Photography	113	51	0.03	1,125	0.04
Visual and graphic arts	22	6	0.00	204	0.01
Radio and television	1,076	471	0.26	6,433	0.25
Software and databases	7,558	3,492	1.90	44,750	1.77
Advertising	1,662	484	0.26	8,128	0.32
Copyright Collecting Societies	–	9	0.00	166	0.01
<b>Total core copyright industries</b>	<b>16 476</b>	<b>6 815</b>	<b>3.70</b>	<b>102 672</b>	<b>4.06</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	507	63	0.03	1,169	0.05
Computers and equipment	1,254	170	0.09	2,323	0.09
Musical instruments	16	4	0.00	82	0.00
Photographic and cinematographic instruments	65	6	0.00	115	0.00
Photocopiers	78	14	0.01	253	0.01
Blank recording material	17	1	0.00	35	0.00
Paper	3,288	616	0.33	6,957	0.27
<b>Total interdependent copyright industries</b>	<b>5,226</b>	<b>875</b>	<b>0.47</b>	<b>10,933</b>	<b>0.43</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	83	23	0.01	511	0.02
Jewellery and coins	180	45	0.02	812	0.03
Other crafts	33	11	0.01	238	0.01
Furniture	118	37	0.02	723	0.03
Household goods, china and glass	9	3	0.00	51	0.00
Wall coverings and carpets	3	1	0.00	20	0.00
Toys and games	198	48	0.03	828	0.03
Architecture, engineering, surveying	421	204	0.11	3,098	0.12
<b>Total partial copyright industries</b>	<b>1,046</b>	<b>372</b>	<b>0.20</b>	<b>6,281</b>	<b>0.25</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	1,003	163	0.09	2,328	0.09
General transportation	1,030	367	0.20	6,283	0.25
Telephony and internet	323	128	0.07	999	0.04
<b>Total non-dedicated support industries</b>	<b>2,356</b>	<b>658</b>	<b>0.36</b>	<b>9,610</b>	<b>0.38</b>

## 4. Collective Management Organisations

The main function of collective management organisations (CMOs)<sup>9</sup> is to collect copyright royalties and payments for the specific uses of copyrighted works and to distribute these revenues as remunerations to the right-holders for the use of their works. Currently there are six collective management organisations operating in Finland: Gramex (representing performing artists whose performances have been recorded on phonograms and producers of phonograms), Kopiosto (representing authors, photographers, performing artists and publishers), Kuvasto (representing visual artists), Teosto (representing composers, lyricists, arrangers and music publishers), Tuotos (representing audiovisual producers) and Sanasto (representing the authors and translators of literary works).

Sanasto is the only one of these six collecting societies that did not collect copyright remunerations between 2005 and 2007. In 2008 Sanasto was approved by the Ministry of Education and Culture as an organisation to collect remunerations for lending from public libraries to be distributed to authors. The first payment of royalties was received in 2008 and was distributed in March 2010. Teosto also collects private copying levies (fair compensation) for private copying via its Private Copying Unit (Hyvitysmaksuyksikkö). The Government decides the scope and amount of the levy and the Ministry of Education and Culture confirms the plan of distribution of the collected payments among various right-owners.

For the purposes of this study, data on collective management societies was collected from Culture Statistics published by Statistics Finland and directly from the collecting societies and their annual reports. However, there are some differences in the form in which the figures are reported depending on the organisation and year in question. Thus, it is challenging to compile a comparable and complete time series of these royalty flows which should be considered when referring to these figures. Table 11 shows the royalty flows of the Finnish collective management organisations in 2008. As the copyright society Sanasto did not have collected royalties until 2008, its activities are not included in the calculations.<sup>10</sup>

**Table 11: Royalties collected and distributed by the collective management organisations in 2008**

(€1,000) (Source: the annual reports of the copyright collecting societies)

	Gramex	Kopiosto	Kuvasto	Teosto	Tuotos	Total
Royalties collected	18,134	23,648	443	42,064	927	85,216
from Finland	17,749	23,241	407	39,017	869	81,283
from abroad	385	407	36	3,047	59	3,933
Royalties distributed	14,973	20,179	432	34,776	424	70,784

\* Gramex figures include also the national and international distribution of remunerations from earlier years.

Collective rights management organisations distribute the major portion of the collected royalties and payments to the respective right-holders. Remunerations are normally distributed at least 6 months after royalties are collected but in some cases it happens in the following year or even later. Teosto for example distributes remunerations five times in a year. This may lead to a situation where the annual distributed amount of remunerations is bigger than the collected amount of royalties. Gramex is a good example of this, since the annual distribution has been higher than collected remunerations during years 2005 to 2007, simply because distribution includes also remunerations from earlier years. The ratio between remunerations distributed and royalties collected differs between different organisations varying from 46 percent to 98 percent in 2008 (Table 16). The relatively low ratio of Tuotos is explained by the previously mentioned time shift between collection and distribution of remunerations.

Part of the royalties collected by Gramex is distributed collectively through ESEK (The Finnish Performing Music Promotion Centre) as grants for performers of musical works and as financial support for phonogram production, live music projects and production of audiovisual music programmes about Finnish artists or composers. A similar organisation is AVEK (The Promotion Centre for Audiovisual Culture) which is a part of

<sup>9</sup>Referred to in the WIPO Guide as copyright collective management societies or copyright collecting societies

<sup>10</sup>Sanasto started to distribute collected royalties for the first time in March 2010 and therefore is out of the scope of this study.

Kopioisto. AVEK is mostly funded by the copyright levy of blank recordable media. Furthermore, the portion of distributed remunerations has slightly decreased in certain societies and increased in others between 2005 and 2008. Although entirely comparable figures of royalty flows over time are hard to come by, on a general level it can be stated that the amounts of royalties both collected and distributed increased between 2005 and 2008.

**Table 12: Ratio between remunerations distributed and royalties collected by copyright societies as a percentage 2005 - 2008**

	2005	2006	2007	2008
Gramex	109.1	110.9	101.7	82.6
Kopioisto	88.7	88.0	87.9	85.3
Kuvasto	71.0	71.0	71.0	97.5
Teosto	88.1	89.3	89.6	82.7
Tuotos	82.7	87.3	76.1	45.7

Sources: Gramex, Kopioisto, Kuvasto, Teosto and Tuotos



## 5. Cross-Border Flow of Copyright Remunerations

This section presents the foreign trade of certain goods and services related to the copyright sector as well as the trade in rights which are sources of flows of copyright remunerations, royalties and license fees. The figures presented are based on data gathered from Finnish Customs and International Trade Statistics and published by Statistics Finland. Imports and exports are measured on the basis of products rather than industries. Due to the fact that manufactured articles progress from being raw materials to being a final product they go through an entire production chain in which the role of distribution channels, such as transport, wholesale and retailing, is unknown and irretrievable when registering final products.<sup>11</sup> Therefore, the trade balance cannot be broken down into industry categories with the same level of accuracy as financial statement statistics and thus presenting the results in accordance with the WIPO template is rather problematic. Moreover, while trade statistics for more traditional copyrighted goods, such as books and newspapers, are readily available, data on related services and royalty flows include major shortcomings. Industry associations and company information can be used to alleviate these problems. However, surveys produced on a regular basis are required in order to produce reliable results at the desired level.

For those categories of available copyright materials that concern core copyright industries, exports amounted to €7,085 million in 2008, which represents 10.8 percent of Finland's total exports. The respective value for imports was €4,754 million, which amounts to 7.6 percent of total imports. This produced a trade surplus of €2,331 million. In 2005, the trade deficit of the core copyright industries was €505 million. The most significant categories of copyrighted material in terms of total export value were computer services<sup>12</sup>, the royalties and licence fees of all industries, press and literature as well as advertising and related services. The same categories were also important in terms of imports. In addition, the import value of advertising and related services was much greater than their export value in 2008. In terms of computer services and press and literature, Finnish exports exceeded the value of respective imports in 2008.

**Table 13: Core copyright industry related exports 2005 – 2008**

	2005		2006		2007		2008	
	M€	%	M€	%	M€	%	M€	%
Press and literature	286	10.9 %	291	11.9 %	296	10.9 %	262	3.7 %
Recorded media*	8	0.3 %	8	0.3 %	7	0.3 %	6	0.1 %
Visual and graphic art works	4	0.2 %	24	1.0 %	4	0.1 %	3	0.0 %
Computer services	1,194	45.6 %	1,136	46.3 %	1,335	49.3 %	5,650	79.7 %
Information services	19	0.7 %	41	1.7 %	3	0.1 %	7	0.1 %
Advertising and related services	130	5.0 %	83	3.4 %	117	4.3 %	116	1.6 %
Audiovisual and related services	6	0.2 %	3	0.1 %	9	0.3 %	3	0.0 %
Other personal, cultural and recreational services	4	0.2 %	16	0.7 %	5	0.2 %	31	0.4 %
Royalties and licence fees	969	37.0 %	850	34.7 %	930	34.4 %	1,007	14.2 %
Total	2,620	100%	2,452	100%	2,706	100%	7,085	100%

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2002 D DE 221411 Gramophone records, CDs and DVDs

<sup>11</sup> Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) The Economic Contribution of Copyright Industries to the Netherlands, SEO Economic Research., SEO Report no. 2008-60.A, p. 6.

<sup>12</sup> The foreign trade in services statistics are based on the survey on foreign trade in services carried out by Statistics Finland. In 2008, the growth in foreign trade came especially from increased financial transactions of international groups and concentration of group activities into Finland from abroad. In exports the changes are visible especially in the exports of computer services.

**Table 14: Core copyright industry related imports 2005 – 2008**

	2005		2006		2007		2008	
	M€	%	M€	%	M€	%	M€	%
Press and literature	194	6.2 %	192	5.9 %	200	5.3 %	194	4.1 %
Recorded media*	30	1.0 %	30	0.9 %	39	1.0 %	30	0.6 %
Visual and graphic art works	5	0.2 %	16	0.5 %	10	0.3 %	2	0.0 %
Computer services	904	28.9 %	879	27.0 %	1,077	28.4 %	1,293	27.2 %
Information services	25	0.8 %	12	0.4 %	17	0.4 %	18	0.4 %
Advertising and related services	1,046	33.5 %	1,069	32.9 %	1,359	35.9 %	1,804	37.9 %
Audiovisual and related services	10	0.3 %	8	0.2 %	21	0.6 %	14	0.3 %
Other personal, cultural and recreational services	9	0.3 %	14	0.4 %	12	0.3 %	19	0.4 %
Royalties and licence fees	902	28.9 %	1,031	31.7 %	1,051	27.8 %	1,380	29.0 %
<b>Total</b>	<b>3,125</b>	<b>100%</b>	<b>3,251</b>	<b>100%</b>	<b>3,786</b>	<b>100%</b>	<b>4,754</b>	<b>100%</b>

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2002 D DE 221411 Gramophone records, CDs and DVDs

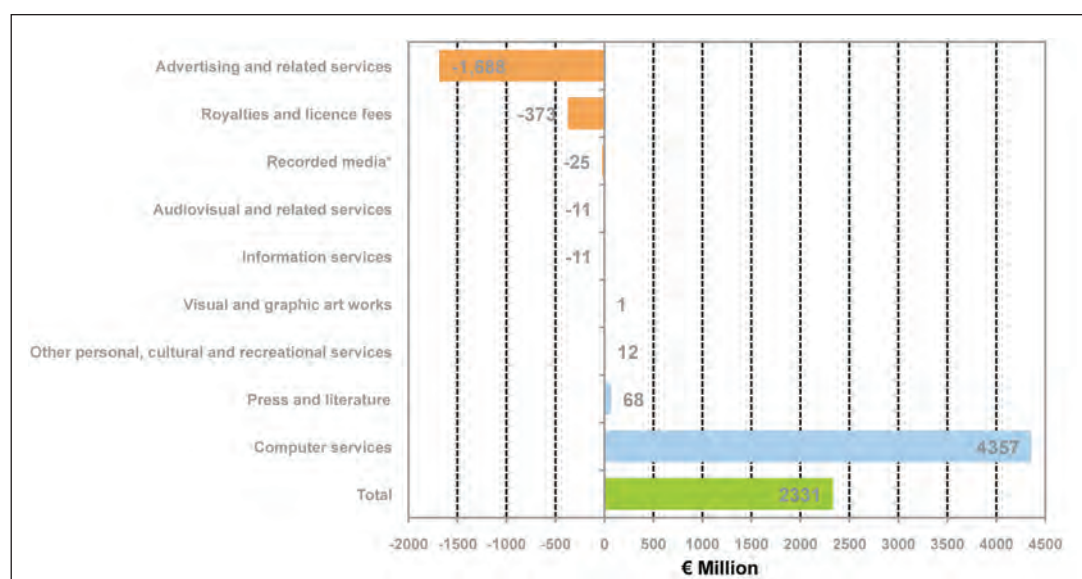
**Table 15: Core copyright industry related trade balance in 2008**

	Export	Import	Trade balance
Press and literature	262	194	68
Recorded media*	6	30	-25
Visual and graphic art works	3	2	1
Computer services	5,650	1,293	4,357
Information services	7	18	-11
Advertising and related services	116	1,804	-1,688
Audiovisual and related services	3	14	-11
Other personal, cultural and recreational services	31	19	12
Royalties and licence fees	1,007	1,380	-373
<b>Total</b>	<b>7,085</b>	<b>4,754</b>	<b>2,331</b>

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2002 D DE 221411 Gramophone records, CDs and DVDs

**Figure 9: Core copyright industry related trade balance in 2008**



The trade structure of interdependent copyright industries shows that Finland produces a trade deficit in all categories except paper, which produces a vast surplus. Of the other products of the interdependent industries, only television and radio receivers and recorders, and computers constitute any significant exports. In both of these categories the imports are considerably higher than exports; in television and radio trade the imports are almost twice the exports and in computers almost threefold. The international significance of Finland in interdependent copyright industries is clearly centred on paper production.

**Table 16: Interdependent copyright industry related trade balance in 2008**

	Export	Import	Trade balance
TV sets, radios, VCRs, CD and DVD players, etc.	271	778	-507
Computers and equipment	297	852	-555
Musical instruments	1	23	-21
Photographic and cinematographic instruments	77	214	-137
Photocopiers	n/a	n/a	n/a
Blank recording material	102	207	-105
Paper	2,212	83	2,129
Total	2,961	2,156	804

Source: Finnish Board of Customs Foreign Trade Statistics

## 6. International Comparison

In essence, the WIPO methodology offers a means to standardise national studies by examining the contribution of copyright-based industries and thus improving cross-national comparability. However, as the WIPO Guide was published in 2003, only a few studies have been published that both apply the WIPO methodology and include comparable results on the years included in this study.

Furthermore, practices in using the WIPO Guide are still evolving. Differences prevail in the level of detail of the reports and the methods used, data sources are not always fully transparent either. Certain differences are due, for example, to variations in the availability of statistics or industry categorisations. Moreover, practices vary in terms of dealing with missing data, using copyright factors and reporting results on foreign trade, for instance. Thus, although cross-national comparisons are the least sensitive to such issues at an aggregate level, the results should nevertheless be interpreted with caution.

Table 17 compares the economic contributions of copyright-based industries in countries that have conducted studies in accordance with the WIPO Guide.

**Table 17: Economic contribution of the copyright-based industries using WIPO methodology**

	Reference year	Value added as % of GDP	Employment as % of total employment
Australia	2007	10.30	8.00
Bulgaria	2005	2.81	4.30
Canada	2004	4.50	5.55
Colombia	2005	3.30	5.80
Croatia	2004	4.27	4.64
Finland	2008	4.73	5.12
Hungary	2002	6.66	7.10
Jamaica	2005	4.81	3.03
Latvia	2000	4.55	5.59
Lebanon	2005	4.75	4.49
Mexico	2003	4.77	11.01
The Netherlands	2005	5.90	8.80
Philippines	1999	4.82	11.10
Russia	2004	6.06	7.30
Romania	2005	5.55	4.19
Singapore	2001	5.67	5.80
Ukraine	2005	2.85	1.90
USA	2007	11.05	8.51

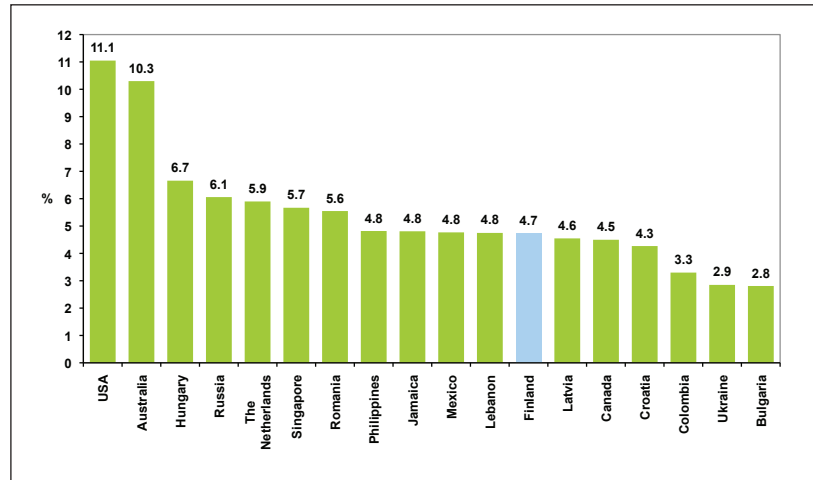
Source: World Intellectual Property Organization [http://www.wipo.int/export/sites/www/ip-development/en/creative\\_industry/pdf/eco\\_table.pdf](http://www.wipo.int/export/sites/www/ip-development/en/creative_industry/pdf/eco_table.pdf)

\* The table above illustrates that a number of studies have been carried out in countries that have only a limited number of official statistics available and make use of their own surveys and proxies. One must take into account these limitations while making international comparisons and conclusions.

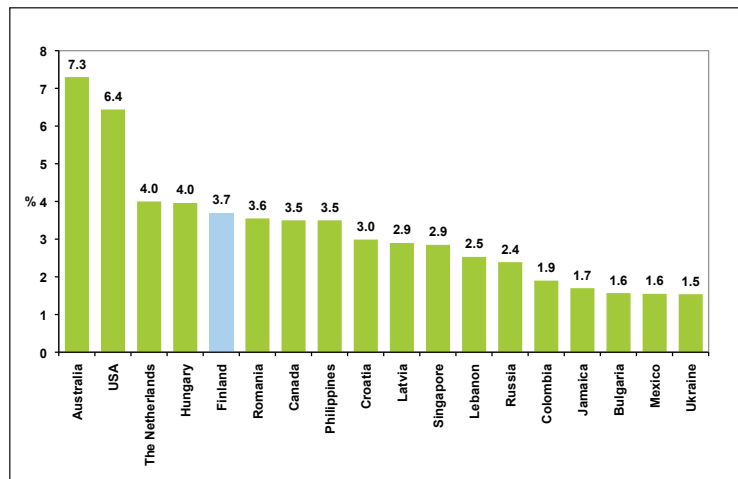
\* One must also take into account the fact that data for different studies was collected for different time period

Figures 10, 11, 12 and 13 and tables 18 and 19 help to illustrate the position of the Finnish copyright-based industries. On average the copyright-based industries comprise 5.4 percent of the GDP of a country. However, in Finland the copyright-based industries comprise approximately 4.7 percent of GDP; therefore Finland is somewhat below average and takes twelfth position in the group of 18 countries. Nevertheless, in terms of the contribution of the core copyright industries, Finland with 3.7 percent contribution ranks fifth.

**Figure 10: Value added of the total copyright-based industries as percentage of GDP per country**



**Figure 11: Value added of the core copyright industries as percentage of GDP per country**

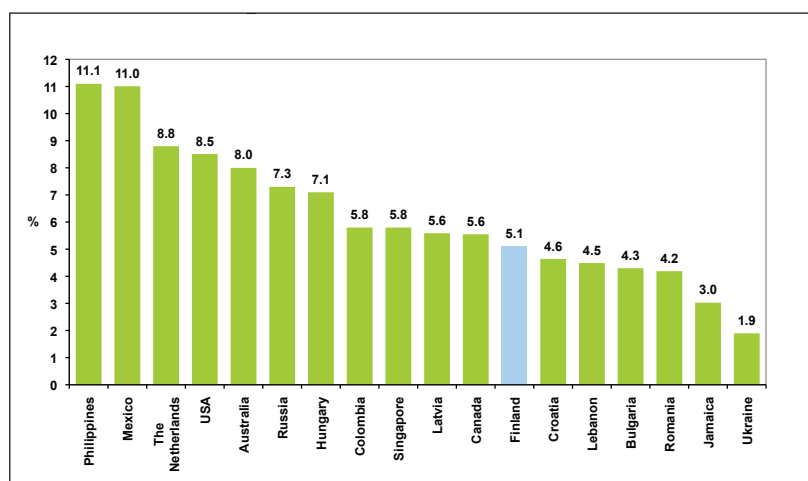


**Table 18: Value added of the copyright-based industries by sub-categories as a percentage of GDP per country**

	Reference year	Core	Interdependent	Partial	Non-dedicated	Total
Australia	2007	7.30	2.00	0.40	0.70	10.30
Bulgaria	2005	1.57	0.62	0.09	0.52	2.81
Canada	2004	3.50	0.81	0.08	0.31	4.70
Colombia	2005	1.90	0.80	0.30	0.40	3.30
Croatia	2004	2.99	0.88	0.32	0.07	4.27
<b>Finland</b>	<b>2008</b>	<b>3.70</b>	<b>0.47</b>	<b>0.20</b>	<b>0.36</b>	<b>4.73</b>
Hungary	2002	3.96	1.24	0.45	1.00	6.66
Jamaica	2005	1.70	0.74	0.47	1.90	4.81
Latvia	2000	2.90	1.10	0.27	0.28	4.55
Lebanon	2005	2.53	0.71	0.62	0.89	4.75
Mexico	2003	1.55	1.69	0.85	0.68	4.77
Netherlands	2005	4.00	0.40	0.90	0.60	5.90
Philippines	1999	3.50	0.96	0.04	0.29	4.82
Russia	2004	2.39	0.76	0.27	2.64	6.06
Romania	2005	3.55	1.08	0.53	0.39	5.55
Singapore	2001	2.85	1.76	0.09	0.97	5.67
Ukraine	2005	1.54	0.68	0.10	0.54	2.85
USA	2007	6.44	n/a	n/a	n/a	11.05

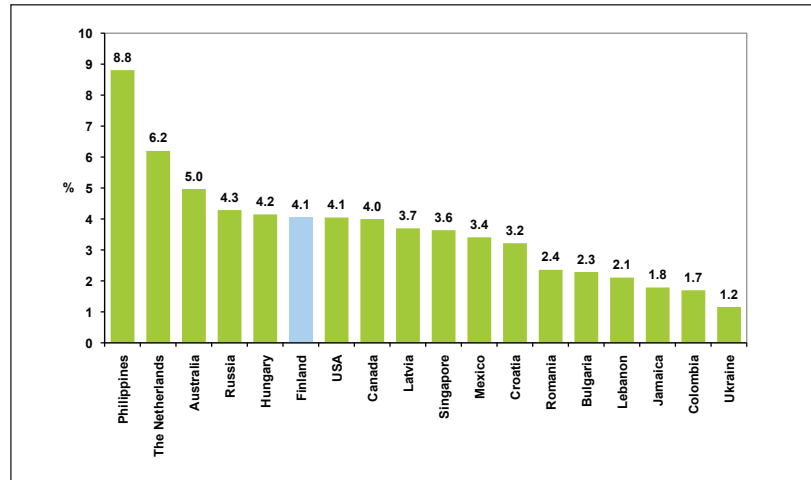
In terms of employment, the copyright-based industries contributed, on average, 6.2 percent to the total amount of people employed in a country. In Finland the copyright-based industries contributed, on average, a total of 5.1 percent to Finland’s employment figure, reaching nearly the average in the group of 18 countries. When it comes to the contribution of the core copyright industries, Finland’s contribution with 4.1 percent clearly exceeds the average and ranks sixth amongst the 18 countries. This is a slightly higher proportion than for example in the United States.

**Figure 12: Employment in the copyright-based industries as a percentage of the total employment per country**





**Figure 13: Employment in the core copyright industries as a percentage of the total employment per country**



**Table 19: Employment in the copyright-based industries as a percentage of the total employment per country**

	Reference year	Core	Interdependent	Partial	Non-dedicated	Total
Australia	2007	4.97	1.81	0.57	0.65	8.00
Bulgaria	2005	2.29	0.73	0.27	1.00	4.30
Canada	2004	4.00	0.91	0.16	0.33	5.40
Colombia	2005	1.70	0.70	1.90	1.50	5.80
Croatia	2004	3.22	0.93	0.41	0.08	4.64
<b>Finland</b>	<b>2008</b>	<b>4.06</b>	<b>0.43</b>	<b>0.25</b>	<b>0.38</b>	<b>5.12</b>
Hungary	2002	4.15	1.25	0.61	1.07	7.10
Jamaica	2005	1.79	0.31	0.23	0.68	3.03
Latvia	2000	3.70	0.70	0.44	0.75	5.59
Lebanon	2005	2.11	0.73	0.70	0.95	4.49
Mexico	2003	3.41	3.65	2.53	1.41	11.01
Netherlands	2005	6.20	0.60	1.10	1.00	8.80
Philippines	1999	8.81	1.40	0.20	0.60	11.10
Russia	2004	4.29	0.75	0.56	1.69	7.30
Romania	2005	2.36	0.58	0.82	0.43	4.19
Singapore	2001	3.64	1.24	0.18	0.74	5.80
Ukraine	2005	1.16	0.46	0.08	0.20	1.90
USA	2007	4.05	n/a	n/a	n/a	8.51

## 7. Conclusions

---

This survey covered the economic contribution of copyright-based industries during the years 2005, 2006, 2007 and 2008. The relative contribution of all copyright-based industries remained rather steady under examination during the years; while in 2005 this contribution was of 4.62 percent, the respective figure for 2008 was of 4.73 percent. The combined value added for the copyright-based industries in 2005 was €7.27 billion and €8.72 billion in 2008. The contribution of the core copyright industries increased from 3.61 percent in 2005 to 3.70 percent in 2008. The share of partial and non-dedicated support industries increased slightly from 2005 to 2008 while the contribution of the interdependent industries fell from 0.54 percent in 2005 to 0.47 percent in 2008. One reason for the decline is the decrease in the value of paper production. The paper industry is one of the major industries in the Finnish economy and therefore, although only a portion of the paper industry's value added is calculated as being copyright-based, a decline in pulp and paper production heavily affects the numbers of the interdependent copyright industries.

The copyright-based industries employed a total of 116 811 people in 2005 and 129 496 people in 2008. In 2005 this represented 4.87 percent of the total employed workforce while the respective number for 2008 was of 5.12 percent. Both the total number of employees in the copyright-based industries and the relative proportion of this workforce slightly increased from 2005 to 2008. This increase is almost totally due to the growth of the workforce in core copyright industries, especially in the subcategories of software and databases, advertising and film and video, which have increased their number of employees.

When comparing this to previous studies made in Finland one has to be cautious. The report published in 2008, covering the years 2000, 2003, 2004 and 2005 did not fully apply the methodology of the WIPO Guide and therefore the results are not fully comparable. However, the differences between the used methodologies are not great. That is particularly apparent when it comes to the core copyright industries, in which the differences are insignificant. The economic contribution of core copyright industries was 3.28 percent of GDP in the year 2000 and had reached 3.70 percent by 2008. One can conclude that the economic contribution of the core copyright industries has shown a moderate but clear growth over the past eight years. During the same period the copyright-based industries' share in relation to total employment has also increased, although slightly less than the value added share has. Specifically in the year 2000, the copyright-based industries represented 3.96 percent of the total employed workforce while the respective share in 2008 was of 4.06 percent.

This report applied the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries. The high-grade statistical system of Finland enables the report to capture accurately copyright-based activities according to the WIPO Guide. However, the WIPO Guide requires assessment and judgement in certain aspects, for example when measuring the copyright-factors of independent and partial copyright industries. In this report the researchers were cautious and used moderate assumptions when calculating the copyright-factors. Therefore one can say that the economic contribution figures of this research paper are more likely to underestimate than overestimate the importance of the copyright industries' contribution to the economy.

The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries was published in 2003 and the experience of its implementation reveals a level of variations. There are obviously variations in the availability of statistics or industry categorisations but practices also vary in terms of dealing with missing data, using copyright factors and reporting results on foreign trade. In particular, the use of copyright factors is an issue that requires caution when making international comparisons. Some of reports do not reveal what copyright factors have been used and what weight is given to interdependent, partial or non-dedicated support industries.

The international comparisons made in Chapter 5 indicate that Finland ranks high in terms of the contribution of its core copyright industries rather than the overall contribution of all its copyright-based industries. This means that the non-core copyright industries contribute less in Finland than in many other countries. Nevertheless, it should be kept in mind that certain national reports are not entirely transparent on the calculation of the contribution of the non-core copyright industries and therefore the comparison has to be interpreted with caution. Further alignment of the methodology implementation would be desirable. In

this regard it would be helpful if WIPO could introduce standard copyright factors or take the differences of various economies into consideration when developing the WIPO methodology. Meetings of researchers and an organised researchers' network would be beneficial for the further development of the research methodology as well as for the standardisation of the implementation of the methodology. WIPO's expertise and resources are valuable in the coordination of these further development activities.

In 2009 a revised statistical standard industrial classification, TOL 2008, was introduced in Finland. The new classification has several differences compared to the old one. One of the important changes is that publishing activities have been moved from manufacturing to a new section called information and communication. The content of the classification has changed most of those services into which nearly 100 categories have been added for the most detailed level. For surveying the economic contribution of the copyright industries the new classification changes will probably mean the availability of more detailed statistical data. However, it also means that increased consideration and analysis is needed when making comparisons with previous surveys.

TOL 2008 is based on the European Union's classification of economic activities, NACE Rev. 2. The revised standard industrial classification will be introduced simultaneously in all EU countries. The standard industrial classification of the United Nations will also be harmoniously revised at the same time. However, the introduction timetable is less synchronous outside the European Union. When the statistical classifications become internationally more uniform, more coherent international survey methods will obviously be facilitated and the making of international comparisons will become easier.

## References

---

- [1] *Guide on Surveying the Economic Contribution of the Copyright-based Industries* (2003) World Intellectual Property Organization, Geneva.
- [2] Francisco, Emma C., de Dios, Loreli C., Barrios, Erniel B. & Tijam, Albert P. (2007) The Economic Contribution of Copyright-Based Industries in the Philippines. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 3-92. World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [3] James, Vanus (2007) The Economic Contribution of Copyright-Based Industries in Jamaica. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 215-344. World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [4] Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) *The Economic Contribution of Copyright Industries to the Netherlands*, SEO Economic Research, SEO Report no. 2008-60.A
- [5] Leo, Kah Mun, Chow, Kit Boey, Lee, Kee Beng, Ong, Chin Huat & Loy, Wee Loon (2006) The Economic Contribution of Copyright-Based Industries in Singapore. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 5-106. World Intellectual Property Organization, Creative Industries Series No. 1, Geneva.
- [6] Marquez-Mees, Victoria, Ruiz Funes, Mariano & Yaber, Berenice (2006) The Economic Contribution of Copyright-Based Industries in Jamaica. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 93-214. World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [7] Melki, Robert (2007) The Economic Contribution of Copyright-Based Industries in Lebanon. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 491-550. World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [8] *National Studies on Assessing the Economic Contribution of the Copyright-based Industries* (2006) World Intellectual Property Organization, Creative Industries Series No. 1, Geneva.
- [9] *National Studies on Assessing the Economic Contribution of the Copyright-based Industries* (2008) World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [10] Penyigey, Krisztina & Munkácsi, Péter (2006) Economic Contribution of Copyright-Based Industries in Hungary. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 283-387. World Intellectual Property Organization, Creative Industries Series No. 1, Geneva.
- [11] Picard, Robert G. & Toivonen, Timo E. (2004) *Issues in Assessment of the Economic Impact of Copyright*. Review of Economic Research on Copyright, 1(1), pp. 27-40.
- [12] Picard, Robert G. & Toivonen, Timo E. (2005) *The Economic Contributions of Copyright-based Industries in Latvia 2000*, Ministry of Culture of the Republic of Latvia, Riga.
- [13] Picard, Robert G., Toivonen, Timo E. & Grönlund, Mikko (2003) *The Contribution of Copyright and Related Rights to the European Economy*. European Commission, Directorate General – Internal Market. [http://ec.europa.eu/internal\\_market/publications/docs/report-copyright-contribution\\_en.pdf](http://ec.europa.eu/internal_market/publications/docs/report-copyright-contribution_en.pdf).
- [14] Sinervo, Petteri & Picard, Robert G. (2000) *Economic Importance of Copyright Industries in Finland, Finnish Copyright Industries in 1997*. The Finnish Copyright Society and The Finnish Copyright Institute, Helsinki.
- [15] Siwek, Stephen E. (2006) *Copyright Industries in the U.S. Economy*. International Intellectual Property Alliance, [http://www.iipa.com/pdf/2004\\_SIWEK\\_FULL.pdf](http://www.iipa.com/pdf/2004_SIWEK_FULL.pdf).

- [16] *The Economic Contribution of Copyright Industries to the Canadian Economy* (2004) Walls Communications Inc., Canadian Heritage, [http://www.canadianheritage.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/economiccontribution/economic\\_contr\\_e.pdf](http://www.canadianheritage.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/economiccontribution/economic_contr_e.pdf).
- [17] The Economic Contribution of Copyright-Based Industries in Bulgaria. In: *National Studies on Assessing the Economic Contribution of the Copyright-based Industries*, pp. 345-490. World Intellectual Property Organization, Creative Industries Series No. 2, Geneva.
- [18] Towse, Ruth. (2000) *Cultural Economics, Copyright and the cultural industry*. In: proceedings of the conference "The Long Run" at Erasmus University, Rotterdam, February 2000, p. 113.

## Appendices

### Appendix 1 Copyright-based industries and related activities with corresponding industry classification codes and the used copyright factors

All the subcategories of the core copyright industries are included in the calculations of the economic contribution of copyright. Thus their copyright factor is 100%.

CORE COPYRIGHT INDUSTRIES			
CATEGORY	ACTIVITIES	CORRESPONDING INDUSTRIES IN FINNISH TOL 2002 CLASSIFICATION	
<b>Press and Literature</b>	Authors, writers, translators	Not available for annual bases	
	Newspapers	22120 Publishing of newspapers	
	News and feature agencies, etc.	92400 News agencies	
	Magazines and periodicals	22130 Publishing of magazines and periodicals	
	Books, maps	22110 Publishing of books	
	Other publishing (cards, directories, etc.)	22210 Printing of newspapers	
	Pre-press, printing, and post press of published materials		22220 Other printing
			22230 Bookbinding
			22240 Pre-press activities
			22250 Other activities related to printing
	Wholesale and retail of press and literature		51474 Wholesale of books
			52472 Retail of books
			52473 Retail sale of newspapers and periodicals
			52502 Retail sale in antiquariums
			52611 Retail of books by mail and internet, this category includes also music and film sold through these channels
Libraries	Cultural statistics, public and scientific libraries		



CATEGORY	ACTIVITIES	CORRESPONDING INDUSTRIES IN FINNISH TOL 2002 CLASSIFICATION
<b>Music, Theatrical Productions, Opera</b>	Composers, lyricists, arrangers, choreographers, directors, performers, etc.	Not available for annual bases
	Printing and publishing of music	22140 Publishing of recorded music
	Reproduction of recorded music	22310 Reproduction of recorded music
	Wholesale and retail of recorded music	51432 Wholesale of entertainment electronics. The values are derived from Finnish sound recording producers' estimations
	Artistic and literary creation and interpretation	92311 Artistic and literary creation and interpretation. Includes contract or commission based or freelance activities of artists and firms that are also working on areas other than music. Not possible to attribute to all relevant fields of activity on an annual basis
	Performances and allied agencies (booking agencies, ticket agencies, etc)	92312 Stage and concert activities
92320 Support activities for culture and entertainment		
<b>Film and Video</b>	Writers, directors, actors, etc.	Not available for annual bases
	Motion picture and video production	9211 Motion picture and video production
		22321 Reproduction of recorded media
	Motion picture and video distribution	9212 Motion picture and video distribution
	Motion picture exhibition	9213 Motion picture and video projection
Video rentals and sales	71401 Renting of video films	
	The category supplemented by statistics on video and DVD sales and value added and employment calculated according to sample survey from Orbis database	
<b>Photography</b>	Photographic services, studios, etc.	74811 Photographic studios
<b>Visual and Graphic Arts</b>	Artists	Not available for annual bases
	Art galleries and other wholesale and retail	52484 Art galleries
	Graphic design	74871 Industrial design and planning. Graphic design only a part of this category. Estimate made according to occupation statistics problem is that graphic design activities take place in other industries too. E.g. prepress, information networks, advertising
<b>Radio and Television</b>	Radio and television activities	9220 Radio and television activities
	Transmission via cable and satellite networks	64203 Transmission via cable and satellite networks

CATEGORY	ACTIVITIES	CORRESPONDING INDUSTRIES IN FINNISH TOL 2002 CLASSIFICATION
<b>Software and Databases</b>	Programming, development, and design	7221 Software publishing
		72220 Other software consultancy and supply
	Wholesale and retail	51840 Wholesale of computers, computer peripheral equipment and software
		52492 Retail sale of computers
	Databases, processing and database publishing	72300 Data processing services
		7240 Database activities
<b>Advertising</b>	Agencies, buying services	74401 Advertising agencies
		74402 Direct and outdoor advertising
		74409 Other advertising services
<b>Copyright Collecting Societies</b>	Copyright Collecting Societies	91110 Business and Employers' associations, Annual statements of Copyright Collecting Societies

INTERDEPENDENT COPYRIGHT INDUSTRIES				
CATEGORY	ACTIVITIES	CORRESPONDING INDUSTRIES IN FINNISH TOL 2002 CLASSIFICATION	Copyright factor	
			Finland	Netherlands
<b>TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment, and Other Similar Equipment</b>		32300 Manufacture of TV and radio receivers and recording devices	35%	35%
		51432 Wholesale of entertainment electronics		
		52451 Retail sale of household appliances and entertainment electronics		
<b>Computers and Equipment</b>	Manufacture	30020 Manufacture of computers	35%	35%
	Wholesale and retail	51840 Wholesale of computers, computer peripheral equipment and software		
		52492 Retail sale of computers		
<b>Musical Instruments</b>	Manufacture	36300 Manufacture of musical instruments	20%	20%
	Wholesale and retail	51481 Wholesale of musical appliances		
		52452 Retail sale of musical instruments and appliances		
<b>Photographic and cinematographic instruments</b>	Manufacture	33400 Manufacture of optical and photographic appliances	30%	30%
	Wholesale and retail	51475 Wholesale of photographic appliances and supplies		
		52485 Retail sale of photographic appliances and supplies		
<b>Photocopiers</b>	Manufacture	30010 Manufacture of office machinery	30%	30%
	Wholesale and retail	51851 Wholesale of office machinery		
		52493 Retail sale of office machinery and communication appliances		
<b>Blank recording material</b>	Manufacture	24650 Manufacture of blank recording material	25%	25%
	Wholesale and retail	51432 Wholesale of entertainment electronics		
		52451 Retail sale of household appliances and entertainment electronics		
<b>Paper</b>	Manufacture	21120 Manufacture of paper and paperboard	25%	25%
	Wholesale and retail	51560 Wholesale of other intermediate products		
		52471 Wholesale of paper and office products		

PARTIAL COPYRIGHT INDUSTRIES				
Economic activity	ISIC rev. 3.1 code	Finnish TOL 2002 code	Copyright factor	
			Finland	The Netherlands
<b>Apparel textiles and footwear</b>	1810 Manufacture of wearing apparel	18 Manufacture of clothing and fur wear	2.7 %	2.7 %
	1721 Manufacture of made-up textile articles			2.7 %
	1920 Manufacture of footwear	1930 Manufacture of footwear	2.7 %	2.7 %
	5131 Wholesale of textiles, clothing and footwear	5142 Wholesale of clothing and footwear	2.7 %	2.7 %
	5232 Retail sale of textiles clothing footwear and leather goods	5241 Retail sale of textiles, 5242 Retail sale of clothing 5243 Retail sale of footwear	2.7 %	2.7 %
<b>Jewellery and coins</b>	3691 Manufacture of jewellery and related articles	362 Manufacture of goldsmith's products and coins	33.5 %	33.5 %
	5139 Wholesale of other household goods	51489 Wholesale of other household goods	5 %	5 %
	5239 Other retail sale in specialised stores	52445 Retail sale of household goods n.e.c.	2.7%	2.7 %
<b>Other crafts</b>	9199 Activities of other membership organisations n.e.c.	91339 Activities of other membership organisations n.e.c.	41 %	41 %
	5239 Other retail sale in specialised stores	52499 Retail sale in specialised stores n.e.c.	2.7%	2.7 %
<b>Furniture</b>	3610 Manufacture of furniture	361 Manufacture of furniture	6.7 %	6.7 %
	5139 Wholesale of other household goods	51489 Wholesale of other household goods	5 %	5 %
<b>Household goods, china and glass</b>	2610 Manufacture of glass and glass products	26130 Manufacture of hollow glass products	0.55 %	0.55 %
	173 Manufacture of knitted and crocheted fabrics and articles	172 Manufacture of fabrics , 173 Finishing of fabrics	0.55 %	0.55 %
	2029 Manufacture of other products of wood	20510 Manufacture of other products of wood	0.55 %	0.55 %
	2899 Manufacture of other fabricated metal products n.e.c.	28750 Manufacture of other fabricated metal products	0.55 %	0.55 %
	5139 Wholesale of other household goods	51489 Wholesale of other household goods	5 %	5 %
	5239 Retail sale of household appliances, articles and equipment	51441 Retail sale of household appliances, articles and equipment	2.7 %	2.7 %
<b>Wall coverings and carpets</b>	1722 Manufacture of carpets and rugs	17510 Manufacture of carpets	1.9 %	1.9 %
	2109 Manufacture of other articles of paper and paper board	21250 Manufacture of other articles of paper and paper board	1.9 %	1.9 %
	5239 Other retail sale in specialised stores	52279 Other retail sale in specialised stores	2.7 %	2.7 %

Economic activity	ISIC rev. 3.1 code	Finnish TOL 2002 code	Copyright factor	
			Finland	The Netherlands
<b>Toys and games</b>	3694 Manufacture of games and toys	36500 Manufacture of games and toys	46 %	46 %
	5139 Wholesale of other household goods	51489 Wholesale of other household goods	5 %	5 %
	5239 Other retail sale in specialised stores	52279 Other retail sale in specialised stores	2.7 %	2.7 %
<b>Architecture, engineering, surveying</b>	7421 Architectural and engineering activities and related technical consultancy	742 Architectural and engineering activities and related technical consultancy	9 %	9 %

NON-DEDICATED SUPPORT INDUSTRIES				
Economic activity	ISIC rev. 3.1 code	Finnish TOL 2002 code	Copyright factor	
			Finland	The Netherlands
<b>General wholesale and retailing</b>	513 Wholesale of household goods	5115 Venture of household goods	6 %	6 %
	515 Wholesale of machinery, equipment and supplies	5114 Venture of machinery and equipment		
	519 Other wholesale	5119 Venture activities		
	521 Non specialised retail trade in stores	52630 Non-specialised retail trade in stores		
	523 Other retail trade of new goods in specialised stores	52499 Retail trade n.e.c.		
	525 Retail trade not in stores	52630 Other retail trade not in stores		
<b>General transportation</b>	601 Transport via railways	601 Transport via railways	6 %	6 %
	602 Other land transport	603 Other land transport		
	61 Water transport	62 Water transport		
	62 Air transport	63 Air transport		
	6301 Cargo handling	63110 Cargo handling		
	6302 Storage and warehousing	63120 Storage and warehousing		
	6303 Other supporting transport activities	6321 Other supporting transport activities		
	6304 Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	633 Activities of travel agencies and other tourist assistance activities n.e.c.		
	6309 Activities of other transport agencies	634 Activities of other transport agencies		
	6411 National post activities	6412 National post activities		
6412 Courier activities other than national post activities	6413 Courier activities other than national post activities			
<b>Telephony and internet</b>	6420 Telecommunications	642 Telecommunications	6 %	6 %
	7240 Database activities and on-line distribution of electronic content	7241 Database and network services		



## ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN FINLAND 2005 – 2008

The study was commissioned in co-operation by the Finnish Ministry of Education and Culture and the Finnish Copyright Society, it was carried out by Business and Innovation Development BID, at Turku School of Economics. Mr. Mikko Grönlund, Head of Research, Mr. Veijo Pönni and Mr. Timo E. Toivonen, Researchers, and Mr Petteri Sinervo, Head of Development, were responsible for the practical implementation of the study under the supervision of Professor Antti Paasio, Director of the School.

Publication Series of the Finnish Copyright Institute  
The Finnish Copyright Institute, established within the Finnish Copyright Society, publishes in its Publication Series studies, articles, research reports etc. Furthermore, the Institute publishes materials on legislation, preparatory legislative documents and case law.

Address of the Institute:

Lauttasaarentie 1

FIN-00200 HELSINKI

Phone +358-9-6810 1279

Telefax +358-9-673 374

E-mail [maire.wikholm@copyrightsociety.fi](mailto:maire.wikholm@copyrightsociety.fi)

# The Economic Contribution of Copyright-Based Industries in Pakistan

---

## **NATIONAL INSTITUTE OF CULTURAL STUDIES**

### **Research Associates**

Dr. Vaqar Ahmed

Mr. Ghulam Samad

Mr. Muhammed Abid

Ms. Adeela Khan

Dr. Ataul Mohsin

“The human mind is an undiscovered planet of vast space, bare deserts, rugged mountains and thick forests blessed with an innumerable number of the most beautiful oasis and fountains of creativity from where the rivers of imagination flow down. The sparkling waters from these streams of ingenuity light up the world of the human mind with intellect, vision and divinity.”

From *“Saint of the Spitting Cobras”*

By Rauf Khalid

## Table of Contents

---

<b>Acknowledgments</b>	<b>172</b>
<b>Preface</b>	<b>173</b>
<b>Executive Summary</b>	<b>174</b>
<b>1. INTRODUCTION</b>	<b>176</b>
1.1 The Need for this Study	176
1.2 Understanding the Intellectual Property and Copyright	177
1.2.1 Intellectual Property	177
1.3 Situation in Pakistan	179
1.3.1 Institutional Framework	179
1.3.2 Legislative and Enforcement Framework	180
1.4 Copyright Law in Pakistan	180
1.4.1 IPR Enforcement	181
<b>2. SURVEY METHODOLOGY AND DATA</b>	<b>182</b>
2.1 Types of Copyright-Based Industries	182
2.1.1 Identification of Industries	182
2.1.2 Core Copyright Industries	182
2.1.3 Interdependent Copyright Industries	183
2.1.4 Partial Copyright Industries	184
2.1.5 Non-Dedicated Copyright Industries	184
2.2 Data sources	184
2.3 Estimation of “Copyright Factors”	186
<b>3. ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES TO THE PAKISTAN ECONOMY</b>	<b>189</b>
3.1 Value-Added of Copyright-Based Industries	189
3.1.1 Revenue (tax) Contribution of Copyright-Based Industries	196
3.2 Trade in Copyright-Based Industries	198
3.3 Employment in Copyright-Based Industries	204
<b>4. ANALYSIS OF CERTAIN SUB-SECTORS IN THE CORE COPYRIGHT INDUSTRIES</b>	<b>207</b>
4.1 Newspapers & Periodicals	207
4.2 Cinema	208
4.3 Radio & Television	209
4.4 Advertising	210
4.5 Computer Software	211
<b>5. INTERNATIONAL COMPARISONS</b>	<b>213</b>
<b>6. CONCLUSIONS AND POLICY RECOMMENDATIONS</b>	<b>215</b>
<b>APPENDIX 1 QUESTIONNAIRE FOR ASSOCIATIONS</b>	<b>217</b>
<b>APPENDIX 2 DATA REQUIREMENT UNDER ISIC</b>	<b>220</b>

## Tables

---

<b>Table 1:</b>	List of IP Laws Implemented or in Process in Pakistan	180
<b>Table 2:</b>	Core Copyright Industries	183
<b>Table 3:</b>	Interdependent Copyright Industries	184
<b>Table 4:</b>	Partial Copyright Industries	184
<b>Table 5:</b>	Data Sources for Key Indicators	185
<b>Table 6A:</b>	Copyright Factor	187
<b>Table 6B:</b>	Value-Added from Supply and Use Tables for 1999-2000	189
<b>Table 7:</b>	Value-Added in Partial and Support Industries 1999-2000 (Rs. Million)	193
<b>Table 8:</b>	Sector-wise Real Contribution to GDP (Billion rupees & Growth %)	195
<b>Table 9:</b>	Contribution of Copyright-Based Industries in Indirect Tax (2007-2008)	196
<b>Table 10:</b>	Sector-wise Share in Tax Revenue Contribution during 2007-2008	197
<b>Table 11:</b>	Copyright-Based Industries Exports (2003–2008) Thousand US \$	200
<b>Table 12:</b>	Consolidated Export of CBI, 2002-2003 to 2007-2008, Thousand US \$	201
<b>Table 13:</b>	Copyright-Based Industries Imports (2006–2008) Thousand US \$	202
<b>Table 14:</b>	Consolidated Imports of CBI, 2005-2006 to 2007-2008, Thousand US \$	203
<b>Table 15:</b>	Operational Licenses during 2006	204
<b>Table 16:</b>	Employment Contribution by Core Copyright Sectors – 1999 & 2007	205
<b>Table 17:</b>	Circulation of Newspapers and Periodicals	207
<b>Table 18:</b>	Total Number of Newspapers and Periodicals by Category	208
<b>Table 19:</b>	Films Released during 1998-2007	208
<b>Table 20:</b>	Documentary Films Produced and Released during 1998-2007	209
<b>Table 21:</b>	TV/Radio Dramas Telecast / Broadcast	209
<b>Table 22:</b>	Television Viewer-ship, TV Channels and Internet Users	210
<b>Table 23:</b>	Summarised Information Regarding Different Sectoral Associations	211
<b>Table 24:</b>	International Comparison regarding Contribution of Copyright Industries towards GDP and Employment	213

## Figures

---

<b>Figure 1:</b>	Data Identification Process	185
<b>Figure 2:</b>	Value-Added & Corresponding Growth Rate in Core Sectors during 2000-2008	191
<b>Figure 3:</b>	Value-Added in Non-Core Sectors and Corresponding Growth Rate during 2000-2008	192
<b>Figure 4:</b>	Total Value-Added of Copyright-Based Industries, 1999-2000	194
<b>Figure 5:</b>	Contribution of Copyright-Based Industries to GDP over time	195
<b>Figure 6:</b>	Sector-wise Share in Tax Revenue Contribution 2007-2008	198
<b>Figure 7:</b>	Overall Exports of Copyright-Based Industries (2003-2008)	198
<b>Figure 8:</b>	Core Copyright-Based Industries Exports during 2005-2008	199
<b>Figure 9A</b>	Overall and Core Copyright-Based Industries Imports	199
<b>Figure 9B</b>	Copyright-Based Industries Trade Balance	200
<b>Figure 10:</b>	Relative Share of CBI Export in 2007-2008	202
<b>Figure 11:</b>	Relative Share of CBI Imports in 2007-2008	203
<b>Figure 12:</b>	Employment in Core Copyright-Based Industry 2006: Electronic Media	204
<b>Figure 13:</b>	Contribution of Copyright-Based Industries in Trade Balance	214



## Acknowledgments

---

The pursuit for finding accurate statistics on copyright-based industries in Pakistan was greatly facilitated by the following organizations<sup>1</sup>:

- a. Pakistan Electronic Media Regulatory Authority
- b. Federal Bureau of Statistics
- c. Federal Bureau of Revenue
- d. IPO – Pakistan
- e. Planning Commission
- f. State Bank of Pakistan
- g. Orient McCann Erickson Advertising (Private) Limited
- h. Ministry of Commerce
- i. Associated Press of Pakistan
- j. Pakistan Association of Printing and Graphic Arts Industry
- k. Pakistan Electronic Media Regulatory Authority
- l. Pakistan Film Producers Association
- m. Pakistan Advertising Association
- n. Photographic Society of Pakistan
- o. AVT Khyber
- p. Geo TV
- q. Aaj TV
- r. Netsole Pakistan Limited
- s. Daily Mashriq
- t. Mandviwala Entertainment (Private) Limited
- u. Pakistan Revenue Automation Limited
- v. WIPO (World Intellectual Property Organization)

---

<sup>1</sup> The usual disclaimer applies.

## Preface

---

This study was undertaken to evaluate the contribution of the copyright and related rights industries to the national economy of Pakistan. It was initially assigned to the “Sitara-e-Imtiaz” winning Economist of Pakistan, Dr. A. R. Kamal but unfortunately Dr. Kamal could not complete the study because of his untimely demise in early 2008.

The World Intellectual Property Organization (WIPO) has commissioned this in October 2008 to a team of researchers including Mr. Rauf Khalid, President and Chairman of the National Institute of Cultural Studies in Islamabad, Pakistan, Dr. Vaqar Ahmed, Senior Economist at the Planning Commission, Government of Pakistan, Mr. Ghulam Samad, Research Economist at the Pakistan Institute of Development Economics (PIDE) in Islamabad, Ms. Maliha Elahi, a project designing and implementation expert and trainer at the National Institute of Cultural Studies (NICS), Mr. Mohammad Abid, an economic research coordinator working for the National Institute of Cultural Studies in Islamabad, Pakistan, Ms. Adeela Khan a researcher and trainer from RH-AID Pakistan, Dr. Ataul Mohsin, a faculty member of the National Institute of Cultural Studies and Mr. Saidullah Khan of IPO Pakistan.

Regular guidance and professional advice was provided by Professor Dr. Robert Picard, an International Consultant with WIPO and by Mr. Dimiter Gantchev Acting Director of the Creative Industries Division at WIPO.

For a correct understanding of the copyright regime, its correlation with economic growth and to bring homogeneity among the members, the team studied carefully and discussed the WIPO guidelines in this regard as well as similar studies conducted by other countries including the USA, Canada, Singapore and Hungary. The specific tasks assigned were:

- To quantify the economic contribution of copyright and related rights industries in the country by estimating their value-added to GDP, their share in national employment and the revenue generated from foreign trade;
- To analyze and elaborate the selected copyright-based industries of importance to the country, their national market structure, value chain, demand and supply patterns, labour market, policy framework, support from the public and non-governmental organizations (NGO) sectors, including the role of collective management organizations, the financing mechanism, the implication of the digital environment, etc.;
- To propose policy, strategy and institutional interventions to encourage the growth and development of copyright-based industries in the country.

In this study, the team has also tried to elucidate the issue of copyright in a manner which would allow laypersons to understand the principles and concerns involved in copyright. The team also sought to raise the awareness of policy makers to the real situation and educate those involved in copyright and related rights work, who may not be aware of the correct protocol involved in copyright or the relevant practical details. Finally, the team has tried to provide the public with information regarding intellectual property and copyright industries.

Special thanks go to the Government of Pakistan, especially the Federal Board of Revenue, the Planning Commission, the Federal Bureau of Statistics, Pakistan Television Corporation, Netsole (Pakistan) Limited, Mr. Kamran Raja, CEO, AVT Khyber, Mr. Imran Aslam, President, Geo Television, Shahab Zubairi, CEO, Aaj TV, Orient Advertising (Private) Limited, Mr. Nadeem Mandviwala, Chief Executive, Mandviwala Entertainment, Mr. Jamshed Zaffar, President, Pakistan Film Producers Association, Chief Executive, Cosmos Productions (Private) Limited, Mr. Ayaz Badshah, Chief Executive, daily Mashriq and daily Statesman and a large number of other newspaper owners and directors for the help they extended during this study. And finally, conviction and guidance of Mr. Yasin Tahir concerning this study is highly acknowledged.

**A. Rauf Khalid**  
President & Chairman  
National Institute of Cultural Studies  
Islamabad, Pakistan

## Executive Summary

---

The creative industries which are deeply rooted in copyright protection contribute to the economic, social and cultural development of Pakistan. Having a lasting impact on cultural diversity and the enrichment of social values, these industries are significantly generating wealth, creating jobs and promoting trade. The purpose of this study was to assess the true value and potential of the copyright sector so that policy recommendations may be made with a view to improve creativity and copyright management that has often been overlooked, underestimated and inadequately considered in Pakistan.

This study aims to document the total economic contribution of copyright industries to GDP, in terms of value-added, share of employment and share of trade. The main core copyright sectors studied are: newspaper and printing, data processing and IT, social and cultural services, recreation services, and radio & TV broadcasts. This exercise is a combination of quantitative and qualitative research methodologies.

Pakistani literature could not go beyond its borders mostly for the reason of rampant piracy generally in the region and particularly in Pakistan. The publishing industry is now mostly focused on printing textbooks, religious publications, newspapers and periodicals. The film industry, which once used to produce over a hundred films every year, is at the brink of closure because of pervasive piracy of films and for lack of copyright awareness in the country.

Pakistani music industry is no exception: social attitudes towards music, disregard for intellectual property and high level of piracy are some of the reasons why our musicians and singers are financially debilitated.

Software creation has made progress with time both locally and outside the country. With the help of the Pakistan Software Export Board, over 120 Pakistani companies are now ISO certified. Pakistan Software Houses Association (PASHA) estimates that today Pakistan's IT industry is worth over 2 billion dollars. Foreign remittances of IT related services and products are now over 170 million dollars (as reported by the State Bank of Pakistan). By 2013, it is estimated to grow beyond 1 billion dollars. There are over 1,100 companies registered with the Pakistan Software Export Board (PSEB) and over 100,000 people are employed by the industry.

Radio & television has traditionally been the source of information and entertainment for the people of Pakistan for over seven decades now. The advertising and license fee earnings of all the radio and TV channels in Pakistan stand well over 10 billion rupees per annum. Pakistan has seen enormous growth in the number of FM radio stations and TV channels in the past fifteen years. Government licensed television channels have gone up from 3 to 82 during this period. The total (spend) advertising revenue stood at Rs 25.05 billion (US \$318 million) in 2008-2009. The industry however, is facing acute challenges of non-availability of educated and trained workforce, lopsided marketing and copyright piracy.

The core copyright industries represent 31% of the value-added copyright industries. The interdependent copyright industries stand for 3%, partial industries for 22% and non-dedicated support industries for 44% of the value-added. The overall copyright industries contribute around to 4.45% of the GDP.<sup>2</sup> The core industries contribute to 1.37% of the GDP, the interdependent industries contribute to 0.11%, the partial industries contribute to 0.98% and the non-dedicated industries contribute to 1.99% of the GDP respectively.

Similarly, the copyright-based industries contributed to 3.71% of the employment in 2006. The core copyright industries contributed to 0.70% of the employment, while the interdependent, partial and non-dedicated industries contribute to 0.04%, 1.37% and 1.60% of the employment respectively.

The employment in copyright-based sectors has noted an increase in recent years. The employment in electronic media has recently increased due to the opening up of media through deregulation that allowed government to offer licenses to the private sector. The largest growth was in the case of Cable TV followed by

---

<sup>2</sup>The estimates of value addition flow directly from the already available Supply and Use table for the year 1999-2000. Despite repeated request to the Federal Bureau of Statistics (FBS), from public and private institutes, the FBS failed to come up with the updated Supply and Use tables. At the start of this study we already highlighted to WIPO that we would use Supply and Use table of 1999-2000.

FM Radio. The recent developments in electronic media include multi-channel multi-point distribution system (MMDS) and direct-to-home technology (DTH).

The export trend in copyright-based industries is dependent on: a) global economic growth that gives rise to global demand for Pakistani products and b) competitiveness of local output which in turn depends upon cost of raw materials and inputs. Pakistan is a net importer of copyright-based industries in the range of \$787 million in 2007-2008. During the same year the core copyright-based industries were net importers in the range of \$1248 million. In 2007-2008 the core copyright-based industries contributed to 20% of total exports. The interdependent copyright-based industries contributed to 41%, the partial copyright-based industries to 34% and the non-dedicated copyright-based industries contributed to 5% of total exports. Similarly, the imports for the year 2007-2008 of core copyright-based industries are 68%, interdependent 25%, partial 1% and non-dedicated copyright-based industries 7%.

While giving specific analysis of some core copyright sectors the study provides policy recommendations including raising awareness amongst artists / intellectuals / law makers / media and government personnel / other stakeholders, launching advocacy campaigns for behavioural change, capacity building of IPO-Pakistan, appointing copyright policemen, assisting in establishing Collective Management Organizations, arranging public-private partnerships with institutions aimed at the development of copyright industries. The competitive environment in the copyright industries with enormous revenue potential needs to be supported by the government. The private sector may be a front line partner in searching and harnessing the potential of individuals / institutions to bring copyright works in the mainstream of the economy.

# 1. Introduction

---

## 1.1 The Need for this Study

With the dawn of the computer age and the birth of the Internet, the importance of copyright has increased considerably. It was therefore felt by the Intellectual Property Organization (IPO)-Pakistan that a study may be conducted to make the people, as well as the decision makers in Pakistan realize the enormous potential of copyright contribution to the country's economic growth and the role it could play in job creation both for educated and uneducated youth. Creativity is nothing new to the Pakistani people, as they have been producing art and music since the birth of the Indus Valley Civilizations.

Copyright industries have been representing the essence of all human development. Copyright work was legislated in the Renaissance, though no formal registration took place at that time. However, copyright certainly gave European people the opportunity to express their intellect, thoughts and feelings at a time when change was regarded with vehement suspicion. Those were the creative people who put Europe on the way to its present prominence. The writers and artists of the time provided radiance in the darkness of poverty, humour in the depths of grief, hope in the time of despair, beauty in the face of evil and reason at the point of disagreement.

Today we find authors, artists and performers in schools, colleges, universities, performance halls, libraries, museums, community centres, cinemas, advertising, media houses, software, 3D animation and video games development companies. They further enrich our culture with their creative expression in music, songs, drama, fiction, poetry, painting, design, photography, graphic designing, video games and films. The copyright works contribute in one way or another to almost every single industry.

One of the major challenges of the third world has been reducing dependency on the import of technology which always comes with a high price. This can be achieved by mustering their country's own creative genius to work towards innovation, invention and creation by strengthening their intellectual property institutions. Individual efforts in creating new economic drivers and improving the old ones play a major role in today's competitive economies for the reason that sustainable economic growth depends largely on hi-tech research and development (R&D) in science and engineering in addition to exploring new horizons in the fields of visual & performing arts and literature. Although the concept of respect of the intellectual property was there in all civilized regions of the world, its modern time legislation originated from the 'Statute of Queen Anne -1710' in Great Britain. Another example of the intent of copyright, as expressed in the United States Constitution, is "to promote the progress of science and useful arts, by securing for limited times to authors and Inventors the exclusive right to their respective writings and discoveries". To protect the creator's right of benefiting fully of his/her creation, the Universal Declaration of Human Rights in its article 27, paragraph 2, states that "Everyone has the right to the protection of moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

Credit for conducting a study that quantified the economic contribution of copyright goes to a British born economist, Sir Arnold who carried out his study in 1934. His study was published as "the Economic Aspects of Copyright" in the books *Economica*.<sup>3</sup>

To inculcate a harmonized approach, the World Intellectual Property Organization (WIPO) published in 2003 the *"Guide on Surveying the Economic Contribution of the Copyright-Based Industries"*. The Guide summarised existing experiences in assessing the economic contribution of the copyright-based industries to national economies and offered guidelines to those studying the creative outputs in economic terms.

For the reason that Pakistan could not take full advantage of its creative genius, the government has decided to establish a focal IP Organization headed by the Prime Minister of Pakistan, particularly aimed at effectively addressing the institutional concerns relating to copyright and intellectual property in the country.

Upon recommendation of the Government of Pakistan, this first national survey on economic contribution of copyright and related rights industries was conducted by the National Institute of Cultural Studies in

---

<sup>3</sup>New series of the books "Economica" 1(2): 167-195



Islamabad, Pakistan. In addition to giving guidance and professional advice, financial support for this study was provided by the World Intellectual Property Organization (WIPO). Two days consultation meetings were also held in WIPO Headquarters in Geneva with WIPO officials and the international consultant to this study Professor Dr. Robert Picard.

In real terms, the economic contribution of some of our culturally rich artistic activities in crafts like embroidery and needle work (generally for common use and especially for bridal dresses), woodcarving and wood painting (in furniture and dwellings) and hand-woven fabrics like “Susi”, “Namda” and “Salara” which involve designing in its own special colour combinations, could not be taken into account for the reason that crafts manufacturing is not formally part of the copyright protected sectors. Keeping its huge potential in view, efforts are required to be made to the policy and implementation levels to find ways and means of bringing crafts into copyright and into organized sectors. The contribution of copyright collecting societies could not be assessed for the reason that no such organization exists in Pakistan.

## 1.2 Understanding the Intellectual Property and Copyright

### 1.2.1 *Intellectual Property*

Intellectual Property (IP) is a critical component of the present day competitive economy especially in the growing globalization, for the reason that sustainable economic growth depends largely on hi-tech Research & Development base of the country. The realization that IP is a powerful driver of innovation and creativity for wealth creation is gradually growing in Pakistan. The new concept of IP-based nations is internationally gaining ground because intellectual property management is a significant enabler of innovation, technology creation and technology transfer. Based on these considerations the intellectual property management has been mainstreamed in Pakistan both by (i) abolishing the age-old fragmented mode of IP management and (ii) establishing IPO-Pakistan for integrated management of intellectual property.

#### 1.2.1.1 *Defining Intellectual Property*

“Intellectual property rights are a bundle of exclusive rights over creations of the mind, both artistic and commercial.” Intellectual property is the recognition of creation by the human mind of goods that hold value i.e. books, music, computer programs, inventions, industrial designs, trade names, trade secrets, etc. Intellectual property enjoys similar protection to other tangible properties. The owner of intellectual property may grant their rights to buy, sell, license, and transfer it like other physical goods.

Any new or improved thought, observation, discovery, invention, experience or creation that has been communicated by spoken, written, sung, performed, pictured, photographed, drawn, painted, constructed, erected, assembled or sculpted has a value; it is the intellectual property for all kinds of uses by such a person or people and with such a person’s or people’s permission in whose mind it was first envisioned or if it has been legally acquired from such a person.

Under the copyright laws, owners are granted certain exclusive rights to a variety of intangible assets such as literary works, music, films, photographs, computer programs and other artistic works.

#### 1.2.1.2 *Types of Intellectual Property Rights*

Intellectual property includes the following types:

- Copyrights
- Patents
- Trademarks
- Geographical Indications
- Industrial Designs
- Integrated Circuits and Layout Designs
- Plant Breeders Rights

Brief description of the above mentioned types of intellectual property is given below:



### 1.2.1.3 Copyright

*“The right over a copy that is exclusively available to the creator of the work. It includes creation of literary and artistic works, music, film, painting, sculpture, computer program and database, etc.”*

Copyright simply means “the right to copy”. Copyright is a form of intellectual property that gives the author, artist or performer of an original work, exclusive right for a certain time period in relation to that work, including its publication, distribution, photographing, photocopying and adaptation; after that time the work is said to enter the public domain. Copyright applies to any expressible form of a literary, research and artistic work like painting, drawing, photograph, lithographs, prints, music, film, sculpture, computer program, database or any information that is substantive, discrete and fixed in a medium. Most jurisdictions also recognize the “moral rights” of the creator of a work, such as the right to be credited for the work at all times.

The time period for enjoying copyright benefits has been internationally standardised, it lasts between fifty to a hundred years from the author’s death or a shorter period for anonymous or corporate authorship. Some jurisdictions have required formalities to establish copyright but most recognize copyright in any completed work, without formal registration. Generally, copyright is enforced as a civil matter, though some jurisdictions do apply criminal sanctions.

### 1.2.1.4 Patents

The Patent “is a government grant to an inventor / innovator conferring the exclusive rights to make, use and sell an invention / innovation for financial and related gains for a stated period of time.”

Patents are the exclusive rights of inventors, innovators and researchers to exclude others and to commercialize their inventions by fulfilling the criteria of novelty, inventive step and industrial application. Patents protect and promote Research & Development in a country’s technological and scientific fields. Protection of patents encourages the discovery of new and improved products and processes, while ensuring public access to information regarding those new products and processes. This enables the inventor or the innovator to gain from his decades old knowledge seeking and struggling to invent something of value for humans or innovate or improve the functioning or acceptability of a product.

### 1.2.1.5 Trademarks

Trademark is “a distinctive sign or indicator used by an individual, business organization or other legal entity to identify to consumers that the products or services with which the trademark appears originate from a unique source, and to distinguish its products or services from those of other entities”.

A trademark in the form of a symbol, mark or a design enables the owner (like a trader) to use his efforts towards achieving a reliable name in his trade. Similarly, it enables the people to understand who is selling, buying or exchanging with them. An example of a well known trademark is the picture of an old man with a white moustache and glasses on the KFC restaurants and advertisements. Even if the name of the restaurant is written in a language not understandable by a passer-by, he / she can easily make out from the old man’s picture that the place is a KFC restaurant.

A trademark is designated by the following symbols:

- ™ (for an unregistered trademark, that is, a mark used to promote or brand goods),
- SM (for an unregistered service mark, that is, a mark used to promote or brand services) and
- ® (for a registered trademark).

A trademark is a type of intellectual property and typically a name, symbol, figure, picture, letter, word, mark, phrase, logo, symbol, design, image or a combination of these elements used by a manufacturer or merchant in order to designate and distinguish his goods / services from any others. A trademark is normally registered with a government agency to legally assure its exclusive use by its owner. There is also a range of non-conventional trademarks comprising marks which do not fall into the standard categories.

The owner of a registered trademark may commence legal proceedings for trademark infringement to prevent unauthorized use of that trademark. However, registration is not required. The owner of a common law

trademark may also file suit but an unregistered mark may be protected only within the geographical area within which it has been used or in geographical areas into which it may be reasonably expected to expand.

The term trademark is also used informally to refer to any distinguishing attribute by which an individual is readily identified, such as the well known characteristics of celebrities. When a trademark is used in relation to services rather than products, it may sometimes be called a service mark.

*Trademarks distinguish the goods and services of one business from those of the others and protect them against unfair competition through counterfeiting. Trademark laws encourage the development and maintenance of high-quality products and services, and help companies advance customer loyalty.*

#### **1.2.1.6 Geographical Indications**

Geographical Indications protect a name or sign used for certain products or services which possesses peculiar qualities or characteristics, or enjoys a certain reputation essentially due to its geographical origin. For example, possible products in Pakistan which may be considered for protection under geographical indications include Peshawari Chapal, Kamalia Khadar, Qasuri Methi, Hala Ajrak, Balochi Sajji and certain regional crafts, etc.

#### **1.2.1.7 Industrial Designs**

Industrial Designs are the ornamental or aesthetic aspects of an article which make the article attractive and appealing. It may consist of three-dimensional features or two-dimensional features i.e. designs of vehicles, pottery, textile or any other industrial and handmade products.

#### **1.2.1.8 Integrated Circuits and Layout Designs**

Integrated circuits are microcircuits, microchips, silicon chips, etc. consisting mainly of semiconductor devices which are used in almost all electronic equipments in use today.

#### **1.2.1.9 Plant Breeders Rights**

Plant Breeders Rights protect rights of breeders (researchers, scientists and farmers) for the development of new plant varieties to get improved farm yield whether or not genetically engineered or improved plants, crops, fruits and vegetables.

### **1.3 Situation in Pakistan**

#### **1.3.1 Institutional Framework**

Until 2005, IP issues were managed in a fragmented manner. The three key registries (i.e. the Copyright Office, the Patent Office and the Trademarks Registry) reported to three different Federal Ministries, while international aspects of the IP regime were handled by other Ministries (the Foreign Office, the Ministry of Commerce and Trade). The result was that it was difficult to formulate IP policies in a coherent manner. Also, critical cross-cutting issues such as effective enforcement of IP rights could not be adequately addressed.

The Government of Pakistan took the following steps to rectify the situation:

- Established the Intellectual Property Organization-Pakistan on April 8th, 2005 as a central organization for the integrated management and enforcement coordination of all forms of intellectual property;
- Empowered the Federal Investigation Agency (FIA) which is Pakistan's elite force for the control of white collar crime to eliminate piracy by including the copyright legislation in the FIA Act, 1974;
- Activated Pakistan Customs to institute effective border measures to control counterfeiting and piracy.

The establishment of an integrated IP organization led to significant improvements in IP policy making. At the same time, the enforcement related initiatives resulted in a discernible decrease in piracy, especially piracy of optical discs.

Nevertheless, the IP situation in Pakistan still needs to be improved and reinforced, especially with reference to the alteration of decades-old thoughts and beliefs which have become ingrained in the minds of the people. Right holders need to be persuaded to take cases of infringements of their rights to the courts, sign agreements with a clear understanding of their copyrights and speak about and report against copyright violations. At the same time, IPO-Pakistan, needs to strengthen itself through acquiring competent professionals following appropriate selection criteria.

### 1.3.2 Legislative and Enforcement Framework

Pakistan is a signatory to the Trade Related Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO) and is therefore under obligation to update its intellectual property laws and to provide for a comprehensive mechanism for protection and enforcement of Intellectual Property Rights in Pakistan. A list of the IP laws that are currently in force or are under consideration may be seen in Table 1 below.

**Table 1: List of IP Laws Implemented or in Process in Pakistan**

i.	IPO-Pakistan Ordinance 2007
ii.	The Patents Ordinance, 2000
iii.	The Registered Designs Ordinance, 2000
iv.	The Registered Layout-Designs of Integrated Circuits Ordinance, 2000
v.	The Copyright Ordinance, 1962 (as amended in 2000)
vi.	The Trade Marks Ordinance, 2001
vii.	Plant Breeders Rights (PBR) Legislation has been approved by the Federal Cabinet. It is now undergoing necessary processes prior to its submission to the Parliament.
viii.	A sui generis GI Law has been drafted. It is undergoing necessary scrutiny and cross-checks required before its presentation to the Federal Cabinet for approval and submission to the Parliament.

## 1.4 Copyright Law in Pakistan

Pakistan is signatory to the Berne Convention (1886), Universal Copyright Convention (1952), Rome Convention (1961) and the TRIPS Agreement (1994). Initially the copyright legislation in Pakistan was based on British Copyrights Act (1911) which had been replaced by Copyright Ordinance (1962) followed by amendments in the year 2000 in compliance with TRIPS Agreement. Similarly, the Copyright Rules of 1967, the Copyright Board (Procedure) Regulations (1981) and the International Copyright Order of 1968 were amended in the year 2002.

Pakistan's copyright law protects the following work categories:

- Literary works
- Musical works including any accompanying words
- Dramatic works including any accompanying music
- Pictorial, graphic and sculptural works
- Motion pictures and other audiovisual works
- Sound recordings
- Architectural works

The copyright works that are not protected include:

- Works that have not been fixed in a tangible form
- Various ideas, procedures, methods, systems, processes, concepts, principles, discoveries, advices, explanation and illustration, etc.
- Common property and works containing no original authorship.

The duration (term) of protection of copyright works is the author's life plus an additional 50 years after the author's death. In case of a joint work the term lasts for 50 years after the last surviving author's death. The owner may assign / transfer / sell these rights to any person, wholly or partially, generally or subject to

limitations, for the whole term or any part, by assignment in writing for 10 years only, reverting back to the author / owner of copyright if not published within a periods of three years.

Registration of copyrights is available in four categories:

- Category-I Literary, Dramatic & Musical Works
- Category-II Artistic Works
- Category-III Cinematographic Works
- Category-IV Recorded Works

The prescribed application form along with Rs 500 as registration fee is submitted for processing to the Registrar Copyrights. Additionally, no objection certificate / affidavit for transfer, power of attorney if applying through attorney and advertisements of artistic work in any Urdu or English daily newspaper are required.

The application is legally filed by the author, the copyrights claimant, the owner of exclusive rights and duly authorised agent of such author, other copyrights claimant or owner of exclusive rights. Competent agencies are District Police, Federal Investigation Agency (FIA), Pakistan Customs and Private Detection Agencies. The fine for infringement of copyright is from Rs 100,000 (US \$1200) to Rs 200,000 (US \$2400) or three years of imprisonment, or both.

(Source: IPO Pakistan)

#### **1.4.1 IPR Enforcement**

The four key components of Pakistan's IPR enforcement model include:

- Awareness,
- Affordability,
- Police Raids and
- Court Convictions.

##### **1.4.1.1 Agencies involved in the IPR's Enforcement Chain are:**

- District Police (Overall Control by Enforcement Raids)
- FIA (Production Control by Dismantling the Strongholds)
- Pakistan Customs (Border Control for Eliminating Smuggling)
- Judiciary (Litigation Management by Changing the Mindset)
- Private Sector (Investigation Agencies for detection of IPR crimes)

##### **1.4.1.2 Enforcement Achievements**

Up till now the following enforcement achievements can be noted:

- Within the first month of IPO existence, FIA cracked down on the notorious piracy infrastructure in May 2005 to demonstrate the Government's administrative firmness behind its IP initiative.
- Pakistan Customs established Anti-Piracy Cells (APCs) at the country's major international airports to institutionalize the government's anti-piracy drive. This was the second time in the history of Pakistan Customs after Anti-Narcotics Cells (ANCs) that the anti-piracy drive was institutionalized in the form of APCs.
- As FIA and Pakistan Customs were busy controlling the supply side of piracy, IPO launched a number of demand control initiatives including IP awareness and enforcement coordination to curb local demand for pirated optical discs.
- Private Sector IP crime detection agencies have been effectively linked through the enforcement coordination initiatives of IPO-Pakistan.
- These activities are being firmly sustained and strengthened for the elimination of counterfeiting and piracy in the country. As a result vendors and business associations are increasingly assuring compliance.
- Pakistan CD/DVD Vendors Association has started self-regulating their vendor members in the far and wide of the country. They have also promised to establish trend setting zero-piracy vending facilities at different cities of the country. The Vendors Association is pursuing both these objectives in right, earnest and with full sincerity of purpose.
- Advisory Council in FIA HQs for countering IPR Violations has been established.

## 2. Survey Methodology and Data

---

Like many other developing countries, Pakistan lacks sufficient socioeconomic data mainly concerning the services sectors. It has been a fairly recent development that trade data on services has been separately identified in the national statistics. It is within this data that some of the core sectors of copyright-based industries can be found. However, there is still no distinguishable sub-sector representing these industries in the national income accounts which are compiled at a fairly aggregate level. There has been some efforts to initiate work towards an input-output table that is disaggregated enough to highlight the new sectors in national income accounts such as information technology and creative arts. Similarly, on the employment side, the representative household level surveys provide information on sectoral employment at aggregate level matched with approximately 17 broad industrial classifications.

In this report we aim to highlight these challenges and to explain how. Statistical issues were dealt with in order to work out reliable estimates regarding value-added, trade and employment contribution of copyright-based industries.

A multi-pronged approach was adopted for data collection which included, but was not restricted to, the collection of available data from the national accounts though conducting focused interviews, field surveys, group discussions, literature review, and comparisons with other related studies. Planning, research and survey teams thoroughly reviewed and benefited from the previous studies conducted in this area for the USA, Canada, Singapore, Latvia, Lebanon and Hungary (see Appendix I).

First-hand information collected from individual and group interviews, and other sources was subjected to qualitative analysis. This section provides an overall methodological review followed by estimates of value addition in the copyright-based industries in Pakistan. Additionally, statistics concerning exports, imports and trade balance are also given in this section. This study also exhibits the employment statistics and related environmental indicators in the copyright-based industries.

### 2.1 Types of Copyright-Based Industries

#### 2.1.1 Identification of Industries

The WIPO guide provides definitions on the copyright-based industries. Four groups have been identified, i.e. core, interdependent, partial and non-dedicated support industries.<sup>4</sup> Different national studies have adopted definitions of the copyright-based industries (WIPO guide 2003, Canadian heritage study 2006, Ministry of culture of the Republic of Latvia 2000, Allen consulting group for Australia 2001, State University of Campinas and Jules Theeuwes for Netherlands 2004), which are in line with the WIPO guide but some of the components in each group may vary from country to country, depending on the scope of copyright protection.

#### 2.1.2 Core Copyright Industries

Core copyright industries are industries that are entirely engaged in creation, production, manufacturing, performance, broadcast, communication and exhibition, or distribution and sale of works and other protected subject matter (Table 2).

---

<sup>4</sup>See WIPO guide 2003.



**Table 2: Core Copyright Industries**

Type of Copyright Industry	Main Grouping of Industries	Subgroups
Core Copyright Industry	Press and Literature	Authors, writers, translators Newspapers News and feature agencies Cards and maps, directories and other published material Pre-press, printing and post-press of books, magazines, newspapers and advertising materials Wholesale and retail of press and literature Libraries
	Music, theatrical productions and opera	Composers, lyricists, arrangers, choreographers, directors, performers and other personnel Printing and publishing of music Production / manufacturing of recorded music Wholesale and retail of recorded music Artistic and literary creation and interpretation Performances and allied agencies
	Motion picture and Video	Writers, directors, actors, etc. and distribution Motion picture, video production and distribution Motion picture exhibition Video rentals and sales, video on demand Allied services
	Radio and Television	National radio and television broadcasting companies Other radio and television broadcasters Independent producers Cable television (systems and channels) Satellite television Allied services
	Photography	Studios and commercial photography Photo agencies and libraries
	Software and databases	Programming, development and design, manufacturing Wholesale and retail of prepacked software Database processing and publishing
	Visual and graphic arts	Art galleries, other wholesale and retail Picture framing and other allied services
	Advertising Services	Agencies, buying services

### 2.1.3 Interdependent Copyright Industries

Industries engaged in production, manufacture and sale of equipment related to copyrights are termed as interdependent copyright industries. Their primary function is to facilitate the creation, production or use of works and other protected subject matter (Table 3).



**Table 3: Interdependent Copyright Industries**

Type of Copyright Industry	Equipment/materials involved	Subgroups
Interdependent copyright industries	TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment, and other similar equipment	Manufacture Wholesale and retail
	Computers and equipments	Manufacture Wholesale and retail
	Musical instruments	Manufacture Wholesale and retail

#### 2.1.4 Partial Copyright Industries

The industries in which activities and production partially depend on the material protected by copyright or related rights are termed as partial copyright industries (Table 4).

**Table 4: Partial Copyright Industries**

Type of Copyright Industry	Main Grouping of Industries	Subgroups
Only that portion which is attributable to works and other protected subject matter is included.	Textile	<ul style="list-style-type: none"> <li>- Art Silk</li> <li>- Made up textiles</li> <li>- Knitwear</li> <li>- Carpets</li> <li>- Garments</li> <li>- Hand-woven Sussi</li> <li>- Hand-woven Namda</li> <li>- Hand-woven Khaddar</li> <li>- Shawls &amp; fabrics with embroidery</li> <li>- Other textile products &amp; crafts</li> </ul>
	Leather & footwear	- Leather & footwear
	Wood	<ul style="list-style-type: none"> <li>- Wooden furniture</li> <li>- Handicrafts</li> </ul>
	Metal Crafts	- Metal Crafts
	Sports	- Sports goods
	Jewellery	- Jewellery

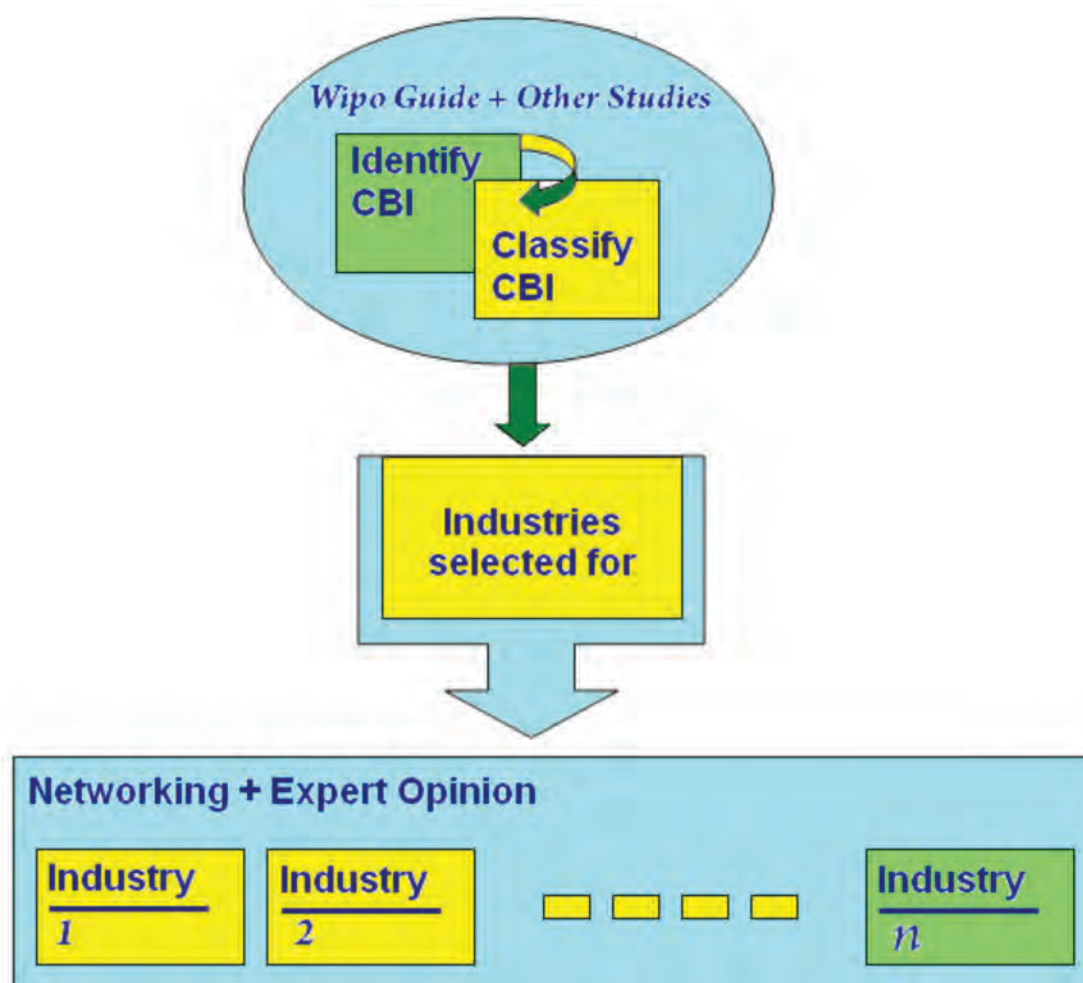
#### 2.1.5 Non-Dedicated Copyright Industries

These industries measure secondary impacts and spillover effects. They are mostly responsible for delivery modes and reflect the contribution that copyright makes to generating value, jobs and trade in related sectors of economy such as transportation, internet, wholesale and others.

## 2.2 Data sources

As part of the data identification process (Figure 1), the research team identified and classified copyright-based industries in line with the guidelines of WIPO. After the identification of industries, disaggregated data sources were used to identify the specific contribution of each creative industry group. In addition to individual interviews with industry leaders, focus group discussions with industry-specific experts were held and officials of the government statistics departments were also approached for their assistance in the identification and retrieval of data in the desired format.

**Figure 1: Data Identification Process**



Annual data in time series format was made available from the Federal Bureau of Statistics on: a) national income accounts, b) foreign trade statistics and c) national and provincial demographic estimates. In addition to the gathered information regarding these three categories, the study team also desired disaggregation of the data for further analysis and convenience which could later be mapped in line with the WIPO categories.

**Table 5: Data Sources for Key Indicators**

Indicator	Data availability
Value-added of core industries	FBS has provided information on Supply / Use for the year 2000 which provides detail on several core-industries.
Data on Export / Import	Information at a substantially disaggregated level has been made available through the statistics department at the State Bank of Pakistan.
Data on Employment	A questionnaire was prepared and sent to associations relevant to copyright-based industry. Some information has also been identified through the Census of Manufacturing Industries and the Labour Force Survey.
Data on Licenses / Royalties	Required information was made available through related government departments.

Regarding the first objective, i.e. value-added, information acquired as Supply and Use tables for the year 1999-2000 was processed to obtain a consolidated estimate for the core and non-core sectors. The former includes: radio and television broadcasts, cultural services, recreation services, social services, information technology, communication services, newspapers and printing. Although previous data in the form of

input – output tables for the year 1990-1991 was available, it was difficult to find the core categories in the older aggregation routine. More recently, the Federal Bureau of Statistics has conducted sectoral studies for 37 production activities, yet it will take some time to finalize and disseminate these results publicly.

In the second case, i.e. information on trade, the statistics available on services trade with the Federal Bureau of Statistics were not disaggregated enough to fit the required level of this study. Hence, data concerning detailed export and import receipts were obtained from published reports of the State Bank of Pakistan. These reports cover several core categories such as: books, newspapers & printing, art works, computer & information services, royalties & license fees, advertisement / market research, research & development services, personal, cultural and recreational services, etc.

The estimation of employment statistics was made available from:

- Labor Force Survey (LFS)
- Household Income & Expenditure Survey (HIES)
- Pakistan Demographic Survey (PDS)
- Census of Manufacturing Industries (CMI)

Household level data sets are always useful tools for capturing skill, employment and consumption heterogeneities. The national survey questionnaires usually neglect narrowly focused industries and their mention is left either to the enumerator or to the person being self-assessed. Therefore, it is observed that most individuals after ticking the box of services sector end up writing nothing in the 'others' column or the 'remarks' section. This creates difficulty for researchers to allocate the free observations into specific categories.

In order to deal with this issue, a survey of copyright-based associations in the country was conducted and it was requested to access their records on the memberships and active people were involved in their concerned area of specialisation. This methodology was successfully examined in Islamabad prior to the start of the survey at Karachi where the head offices of more than 60 percent of the associations are situated. As this was a targeted rather than a representative survey at national level, a weighing mechanism was applied, derived from the cross-sectional data sets mentioned above. However, given the data limitation and low response rate of the survey, this may not be a feasible idea as weighing estimates have to be interpreted with caution.

In collaboration with the Federal Board of Revenue, another effort was made to consolidate the contribution of copyright-based industries in Pakistan towards overall tax revenues. It has been easier to get a one-point estimate for indirect taxes minus subsidies (i.e. net indirect taxes) from the 1999-2000 use table, however, for the years beyond 2000 and for detailed tax classification, the study team did get in touch with Pakistan Revenue Automation Ltd which is a research arm of the Federal Bureau of Revenue. Monthly statistics were available on sectoral and client-wise sales tax receipts, corporate and personal income tax. In Pakistan sales tax is a single levy tax on total sale (Consumer price) of goods or services and can be levied on copyright based industries. The data was very much up to date and a very close to correct percentage figure of the evaded tax can be estimated.

The data structured for this report preserves the industrial and trade classification followed by the Federal Bureau of Statistics for value addition and State Bank of Pakistan for trade. However, once our survey exercise ended, an important step was the mapping of WIPO categories with classifications currently followed by Pakistan (i.e. International Standard Industrial Classification ISIC Rev3.1).<sup>5</sup>

### 2.3 Estimation of "Copyright Factors"

It becomes difficult to eliminate the elements that can not be fully attributed to copyright.<sup>6</sup> In copyright industries, literature and various formulas were found available where one could impute the value of copyright factors. The Singapore study derived the factors on the basis of the US study.<sup>7</sup> The Latvian study used the average of the two countries, e.g. Singapore and the US to derive it. Similarly, the Hungarian study used the factors applied by the US study.

<sup>5</sup>Appendix III.

<sup>6</sup>WIPO Guide on Surveying the Economic Contribution of Copyright-Based Industries, Geneva 2003.

<sup>7</sup>Richard Watt (2004), "A Comment: The Copyright Factors", Review of Economic Research on Copyright Issues, 2004, vol. 1(1), pp 71-78.

In this study, the setting of the “copyright factor” to be assigned to each industry has been based on the assessment of productivity provided by the industry or association experts during our consultative sessions. Studies such as Kemal (1993) and Kemal et al. (2003) provided some help in organizing the industries in terms of their relative creative content.<sup>8</sup> Other methodologies include Kwan (2002) who proposed the estimation of a “sophistication index” for exported goods where the sophistication of product equals weighted average of exporting countries per capita GDP.<sup>9</sup>

The inclusion of some industries or sectors in our analysis requires specific explanation. For instance, it was deemed important to include some specific artists in Pakistan who perform in 3-star hotels or hotels of above rating. These performers are capable of multilingual singing and cross-continental performances. Furthermore, struggling artists or those who could not make it big in their specific entertainment niche are also found in these hotels giving singing, theatrical or related performances from the super hits of the past on a regular basis. Unfortunately, for the reason that Pakistan does not have a single ‘Collective Management Organisation’, the creators of the original music and songs have difficulties in collecting their royalties. Marriages and other functions also contribute to the creative sector. This is not just because of performances but also due to the artisan’s work on wedding dresses, ornaments structured by specialised jewellers, stage setting, transport beautification, video making and photography, etc. This sector though very vital with respect to its contribution towards creating employment opportunities, culturally remains out of the copyright registration regime in Pakistan.

The *dwelling*s sector that explains the contribution of architectural services was included on the basis of culture-specific (or traditional) crafts used in the construction of residential and non-residential buildings in Pakistan. Most of the conventional iron and stone work is also carried out manually as automated machine routines are rarely available in rural and parts of urban areas. Such processes include “grilling”, carpentry, ceiling and mirror works. As part of our rural culture, intricate decorative work is also carried out on walls, windows and ceilings.<sup>10</sup>

**Table 6A: Copyright Factor**

Sector ID	Activity	Copyright Factor (%)
<b>Core Copyright Industries</b>		
70	Newspaper & printing	100
149	Data processing & IT	100
151	Social & cultural services	100
154	Recreation services	100
155	Radio & TV broadcasts	100
<b>Interdependent Copyright Industries</b>		
69	Manufacturing of paper & paper products	100
112	Manufacturing of musical instrument	100
<b>Partial Copyright Industries</b>		
59	Art silk	5
61	Made up textiles	5
62	Knitwear	3
63	Carpets	3.5
64	Garments	3

<sup>8</sup>Kemal, A. R. (1993) “Industrial Sector Review in Pakistan”, Asian Development Bank, Manila 1993. Kemal, A. R., Musleh-ud-Din and Usman Qadir (2003) “Global Research Project: Pakistan Country Report” Pakistan Institute of Development Economics.

<sup>9</sup>Kwan, Chi Hung (2002), “The Strength of ‘Made in China’ Viewed from American Market”, *International Economic Review*, volume 7-8, 2002.

<sup>10</sup>There is also a medium-sized industry for painters who specialise in painting of public transport buses and cargo trucks. These buses and trucks then exhibit on their body the traditional pictures from their provinces or districts.

**Table 6A: Copyright Factor (continued)**

65	Leather & footwear	25
67	Wood and wood products	10
68	Wooden furniture	20
109	Handicrafts	70
110	Sports goods	10
111	Jewellery	25
<b>Non Dedicated Copyright Industries</b>		
131	Wholesale & retail trade	3.80
133 – 37	Transport	4.10
a138	Communication services	4.10

### 3. Economic Contribution of Copyright-Based Industries to the Pakistan Economy

#### 3.1 Value-Added of Copyright-Based Industries

Our main source of data and reference was the Supply and Use tables for the year 1999-2000. We are taking a ten years old data for the reason that 1999-2000 is the last year for which a Supply and Use table is available; although the Federal Bureau of Statistics are working on a more recent year. Based on the purchasers' prices, these tables provide inter-industry data, gross value-added, household consumption and gross fixed capital formation in 157 production sectors of the economy. Meanwhile, a new release of input-output statistics in Pakistan following the studies conducted by the Federal Bureau of Statistics for the rebasing of the GDP and its benchmarking is also expected. Social and Cultural Services represents a bouquet of cinema, dance music and other performing arts including but not restricted to folk dances like Athanr, Khattak, Luddi, Gidda, Shedi, Baluchi, Shadola, Folk Music and recreation services include Folk theatre like Naotanki, Folk Puppet shows, Cultural Tropes, etc.

One important core sector "Advertising" could not be included in this or in the subsequent tables for the reason that the Federal Bureau of Statistics did not have any statistics on the business of the advertising industries for any year or for the year 1999-2000. The Pakistan Advertising Association has been closed down for a variety of reasons. The estimated value-added of advertising in the year 1999-2000 was in the range of US \$ 250 million but the same stands already taken in the heading of Newspaper & printing and Radio & TV broadcast. While outdoor advertising took a sizeable chunk of business by 2007-2008, it was introduced in the year 2002 in Pakistan.

Another core copyright sector "music" stands included in Recreation services and Radio & TV broadcasts. Music tapes and CDs have always been in the unorganised sector where piracy goes unchecked. So much so that when the government officials conducted raids on the manufacturers of pirated CDs, all the large and medium size businesses had closed down completely. CDs are now burnt in small quantities by local suppliers or music shopkeepers individually.

**Table 6B: Value-Added from Supply and Use Tables for 1999-2000**

(Million Rupees)

Sector ID	Activity	Value-Added	Indirect Taxes (net)
<b>Core Copyright Industries</b>			
70	Newspaper & printing	3408	165
149	Data processing & IT	20225	55
151	Social & cultural services**	17381	
154	Recreation services**	3366	
155	Radio & TV broadcasts	4255	
<b>Total</b>		<b>48635</b>	<b>220</b>
<b>Interdependent Copyright Industries</b>			
69	Paper & paper products	14560	2632
112	Musical instrument	3507	-19
<b>Total</b>		<b>18067</b>	<b>2613</b>
<b>Partial Copyright Industries</b>			
59	Art silk	17891	3693
61	Made up textiles	7032	-42



**Table 6B: Value-Added from Supply and Use Tables for 1999-2000 (continued)**

62	Knitwear	12080	-884
63	Carpets	2706	61
64	Garments	27084	-1057
65	Leather & footwear	19885	-561
67	Wood and wood products	9858	111
68	Wooden furniture	1874	11
109	Handicrafts	285	
110	Sports goods	33184	-91
111	Jewellery	1885	-19
	Total	133764	-110
<b>Non-Dedicated Copyright Industries</b>			
131	Wholesale & retail trade	638235	25752
133 – 37	Transport	721946	11428
138	Communication services	61657	7311
		1421838	44491
<b>Sum of Core + Non-Core Sectors</b>		<b>1622304</b>	<b>48546</b>

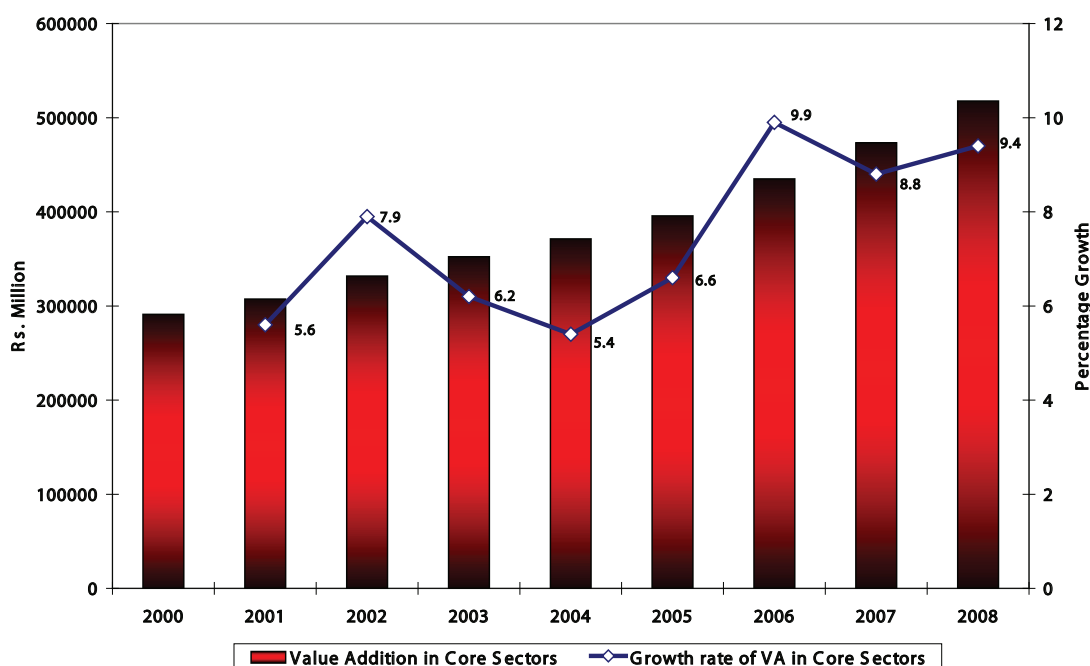
Source: Federal Bureau of Statistics

\* Represents core copyright sectors.

\*\* Social and Cultural Services represents a bouquet of cinema, dance music and other performing arts including but not restricted to folk dances like Athanr, Khattak, Luddi, Gidda, Shedi, Baluchi, Shadola, Folk Music and recreation services include Folk theatre, Folk Puppet shows, Cultural Tropes, etc.

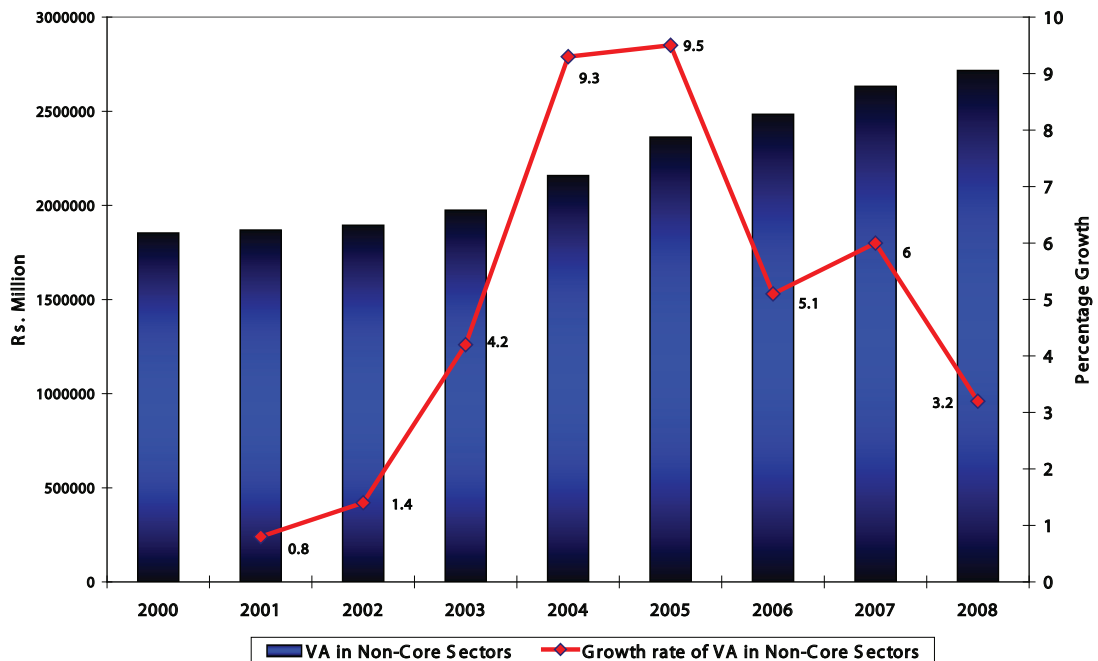
An estimated value-added for the period 2001 to 2008 is depicted in Figure 2. Taking 1999-2000 as the benchmark year, the real growth rate of social services was used as a proxy for the overall growth of copyright-based industry in Pakistan. The national accounts data for social services is available with the Federal Bureau of Statistics and is annually reported in the Economic Survey. The reason for choosing the growth rate of social services as a proxy may be justified from the Labour Force Survey of Pakistan which indicates that the average labour (wage) returns in the copyright sector are closer to the average returns of skilled workers in the Education and Health (social) sectors of Pakistan.

**Figure 2: Value-Added & Corresponding Growth Rate in Core Sectors during 2000-2008**



In the case of non-core sectors, information concerning sub-sectoral real growth rates was gathered from various issues / numbers of Economic Survey published by the Ministry of Finance. It was observed that the growth rate in value addition of core sectors is showing promising increase over time (Figure 2). From a real growth of 5.6 percent in 2001, the core sector has steadily grown to a level of 9.4 percent growth in 2008. There is, however, greater volatility in the case of non-core sectors. After recovery from a low growth of 0.8 percent in 2001, the curve peaks at 9.5 percent in 2005, afterwards there is a sharp decline bringing the growth rate down to 3.2 percent by 2008. This decline may be attributed to the fall in growth rate that came about due to rising oil prices and reduced energy availability. The oil prices shocks were later followed by declining exports and official inflows on account of global financial crisis. The global rise in oil and food prices not only increased the import bill (by putting a downward pressure on Pakistan Rupee) but also increased the size of subsidies allowed in order to protect the poor and vulnerable segment of the society from the full effect of rising prices. However, the unsustainable level of subsidies led to rising fiscal deficit which ultimately created a prolonged inflationary pressure. Consequently, the low levels of reserves forced the Government to negotiate Stand-by-Arrangement with IMF in order to obtain the necessary liquidity.

**Figure 3: Value-Added in Non-Core Sectors and Corresponding Growth Rate during 2000-2008**



The survey exercise ended in a somewhat low response rate of around 10%. This made the task of evaluation of the growth rate for copyright-based industries very difficult. One may observe that value-added in core sector declined during 2002-2004 but it increased for non-core sectors in the same time period. The reason might be the underlying (increasing) trend of private sector investment in non-core sectors particularly manufacturing of equipment, textile and services sectors. The main sectors that attracted foreign investment were telecom and IT services.

In 2002, Pakistan faced severe drought conditions in two out of four provinces. Following 2002, the recovery of the agriculture sector has been slow (until 2005) due to the displacement of farmers. There seems to exist a positive correlation between crop output and artisan's work. The first example is of cotton crop output in Pakistan. The cotton-based textiles constitute around 55 percent of Pakistan's exports.<sup>11</sup> The poverty and overall welfare levels of the rural population are greatly impacted by the health of the cotton sector. A good cotton crop increases rural incomes and there is an increase in the number of marriages which in turn gives rise to artisan work that includes bride and bridegroom related clothing, accessories and handmade jewellery, etc. Similarly, in the food sector, a major share of creative work takes place in the production of sweets and traditional bakery items. The welfare of workers associated with sweets production is dependent on the output of sugar cane crop. Similarly, the socio-political situation in Pakistan influenced the artisans' work, music and theatrical production, motion picture videos, etc., in war prone zones or in conflict areas. All these factors affected the value addition in core sector.

As per the methodology used the total value of the partial and non-dedicated groups of industries can not be fully included in the overall contribution of the creative sector as not all of their value is copyright-related. The calculation presented in Table 7 uses copyright factors based on the survey of associations and meetings with sectoral professionals. A detailed account on the content of copyright factors is given in the succeeding section. These factors represent the proportion of copyright-related value-added in the overall sector. It can be noted that for partial and support industries, there is a substantial difference between the overall and creative value addition.

<sup>11</sup>This sector faces substantial piracy issues. One of the leading exporters of high quality Pakistan ready made garments informed our survey unit that the prints designed by his R&D section are copied in the informal sector within hours of their first launch.

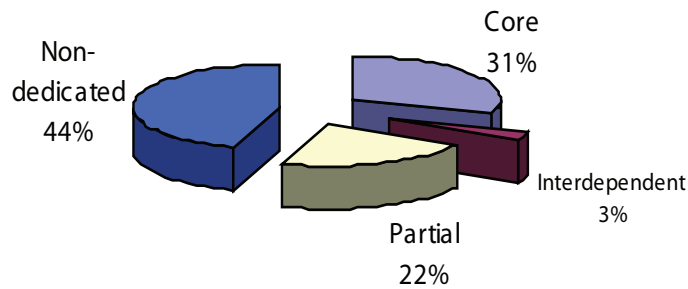
**Table 7: Value-Added in Partial and Support Industries 1999-2000 (Rs. Million)**

Sector ID	Activity	Value- Added	Copyright Factor (%)	Creative Value Addition
<b>Core Copyright Industries</b>				
70	Newspaper & printing	3408	100	3408
149	Data processing & IT	20225	100	20225
151	Social & cultural services	17381	100	17381
154	Recreation services	3366	100	3366
155	Radio & TV broadcasts	4255	100	4255
<b>Total</b>		<b>48635</b>	<b>100</b>	<b>48635</b>
<b>Interdependent Copyright Industries</b>				
69	Paper & paper products	14560	100	14560
112	Musical instrument	3507	100	3507
<b>Total</b>		<b>18067</b>	<b>100</b>	<b>18067</b>
<b>Partial Copyright Industries</b>				
59	Art silk	17891	5	894.55
61	Made up textiles	7032	5	351.60
62	Knitwear	12080	3	362.40
63	Carpets	2706	3.5	94.71
64	Garments	27084	3	812.5
65	Leather & footwear	19885	25	4971.25
67	Wood and wood products	9858	10	986
68	Wooden furniture	1874	20	375
109	Handicrafts	285	70	200
110	Sports goods	33184	10	3318
111	Jewellery	1885	25	471.25
<b>Total</b>		<b>133764</b>	<b>180</b>	<b>12837</b>
<b>Non-Dedicated Copyright Industries</b>				
131	Wholesale & retail trade	638235	3.80	24253
133 – 37	Transport	721946	4.10	29599.79
138	Communication services	61657	4.10	2527.93
<b>Total</b>		<b>1421838</b>	<b>12</b>	<b>56380.65</b>
<b>Sum of Core + Non-Core Sectors</b>		<b>1622304</b>		<b>135919</b>

Source: Federal Bureau of Statistics, own calculation.

\*Value-added of advertising stands already taken in the heading of Newspaper & printing and Radio & TV broadcast. While outdoor advertising that took a sizeable chunk of business by 2007-2008, it was introduced in the year 2002 in Pakistan.

**Figure 4: Total Value-Added of Copyright-Based Industries, 1999-2000**



Paper and paper products stand for a significant amount of the value-added. This sector has a strong forward linkage with most services sectors in Pakistan which contribute considerably to Pakistan's GDP. The items under mass production include: cinema posters, product design leaflets, newspaper advertisements, billboard design, fliers, flags, bags, printed plastic bags, streamers, etc.

The handicraft category though having a very high income potential at the moment has to show little in its contribution to the GDP. This is primarily due to the fact that it does not enjoy full copyright protection. Most of the activity in handicraft sector is still informal and undocumented. The income from most of the handicrafts is lesser than the daily labour rate in the country and therefore a very large majority of crafts are meant for personal and family use only. It is evident that on an average there are less than 10 shops per city, offering good quality labelled handicrafts with full information about supplier and the ingredients of the product. With export enablement of crafts through skill training and product designing can become one major copyright industry in Pakistan.

The contribution of copyright-based and related industries in GDP has grown steadily showing growth from 8.2 percent in the year 2000 to 9.4 percent in 2008 (Figure 4). There is a list of multifarious factors that explain this rising share. Among them, first would be the deregulation of media in Pakistan that allowed the private sector to increase its participation in areas such as radio and television broadcasting. Second was the establishment of formal academies and institutions in Pakistan providing skills-based education and preparing a trained workforce for creative industries.

**Figure 5: Contribution of Copyright-Based Industries to GDP over time**

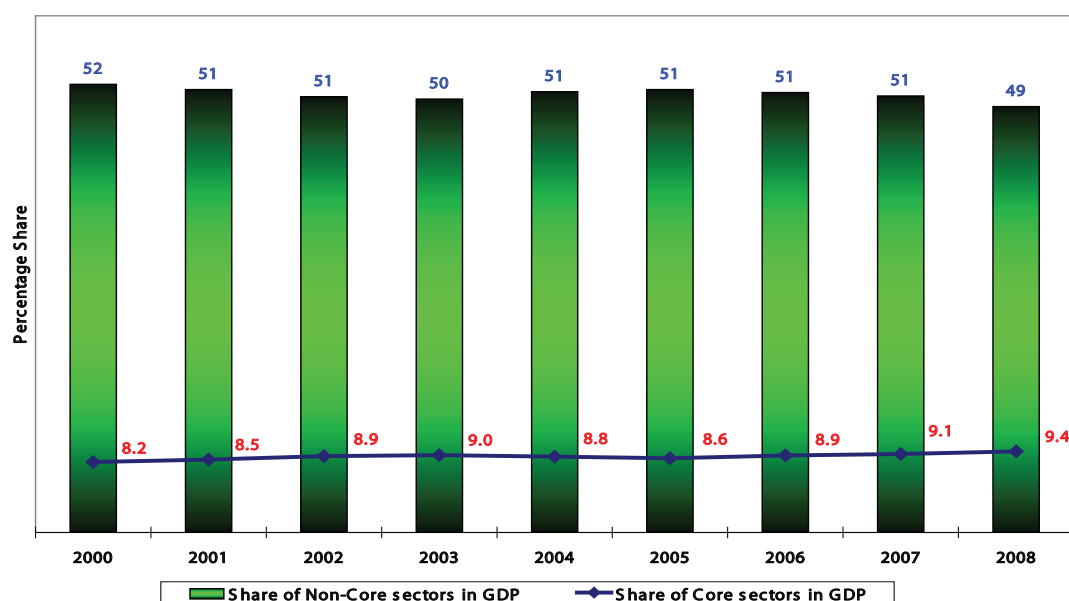


Table 8 below provides the sectoral GDP growth rates during the period 2004 to 2009. Almost all sectors show a declining trend, however, it was i) industry that was worst hit due to high energy / input costs and ii) the global financial crisis. Agriculture sector saved the overall growth rate (from going into negative) owing to good climatic conditions and timely rains. For the year 2008-2009, the overall GDP grew by 2.0 percent, which was contributed by agriculture (4.7 percent) and services (3.6 percent). Due to the infrastructure shortages<sup>12</sup> faced during 2008-2009 and the diminishing global demand, the industrial sector contracted by 3.6 percent. The copyright-based industries are estimated to have grown by 0.8 percent.

**Table 8: Sector-wise Real Contribution to GDP (Billion rupees & Growth %)**

Sectors	GDP Contribution		
	2004	2007	2009**
Agriculture	964*	1137	1203
Industry	1076	1367	1341
Large Scale Manufacturing	493	696	668
Services	2174	2687	2968
Wholesale & Retail Trade	767	887	964
GDP (fc)	4214	5191	5512
	% Growth		
Agriculture	2.40	4.10	4.70
Industry	16.30	8.80	-3.60
Large Scale Manufacturing	18.10	8.70	-7.70
Services	3.50	7.00	3.60
Wholesale & Retail Trade	8.30	5.80	3.10
GDP (fc)	7.50	6.80	2.00

Source: Planning Commission, Federal Bureau of Statistics Own calculation.

\* At constant factor cost of 1999-2000.

\*\* Provisional estimates.

<sup>12</sup>Particularly the lack of energy / electricity shortage for the industrial sector.



### 3.1.1 Revenue (tax) Contribution of Copyright-Based Industries

In this section the break-up of indirect tax contributions accruing from core and non-core sectors would be elucidated. The Federal Board of Revenue was also requested to provide details on contribution towards direct taxes, however, that could not be made possible until the completion of this study. Information concerning indirect tax revenues for the year 2007-2008 is presented in Table 9. The total customs duty collected on the import of copyright-based industries amounted to Rs 10876 million while the amount of sales tax stood at Rs 9484 million. Thus the total tax revenue of over Rs 2 billion from copyright-based industries shows its sizeable contribution in the development of the country.

**Table 9: Contribution of Copyright-Based Industries in Indirect Tax (2007-2008)**

(Rs in million)

Items	Customs Duty	Sales Tax	Excise Duty
<b>A- Core Copyright Industries</b>			
Printed Materials (Books, News paper, Magazines, etc.)	78.381	131.649	
Arts and antiques	0.419	1.173	
<b>Total A</b>	<b>78.8</b>	<b>132.822</b>	
<b>B- Interdependent Copyright Industries</b>			
Photographic Goods	104.307	223.897	
Paper & Paperboard	4390.093	4835.249	
Musical Instruments	1.263	2.089	
Optical, Photographic Instruments	893.27	728.219	
Miscellaneous Manufactured Articles	420.155	210.387	
<b>Total B</b>	<b>5809.087</b>	<b>5999.841</b>	
<b>C- Partial Copyright Industries</b>			
Silk	104.639	0.068	
Wool & Fabrics	15.757	0.119	
Carpets	187.609	5.376	
Made up Textile Articles	482.19	11.036	
Articles of Stone, Plaster, Cement	252.588	248.522	
Ceramic Products	1432.989	1117.958	
Glass and Glassware	836.492	730.543	
Precious Stones / Metals	32.881	64.5	
Toys and Games	324.175	219.186	
<b>Total C</b>	<b>3669.32</b>	<b>2397.308</b>	
<b>D- Non-Dedicated Copyright Industries</b>			
Advertisement TV Cable			0.306
<b>Total D</b>			<b>0.306</b>
<b>Total Indirect Tax Contribution (2007-2008) (A+B+C+D)</b>	<b>9557</b>	<b>8530.2</b>	<b>0.612</b>

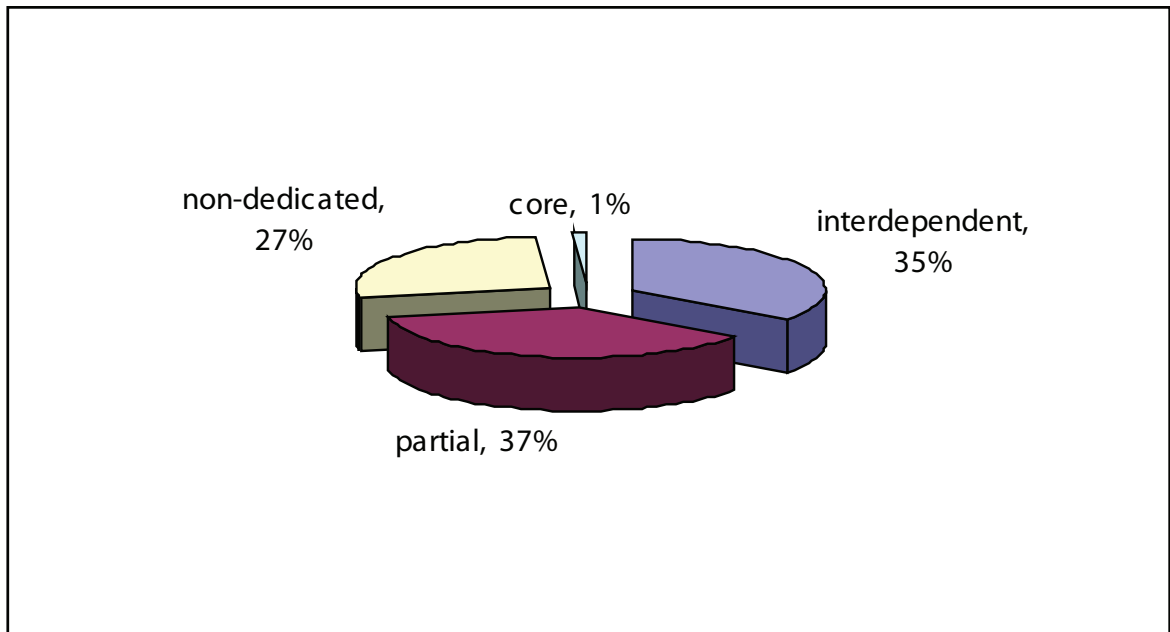
Source: Federal Board of Revenue

**Table 10: Sector-wise Share in Tax Revenue Contribution during 2007-2008**

Items	Sectoral Tax Total (Rs Million)	Sectoral Share (Percentage)
<b>Core Copyright Industries</b>		
Printed Materials (Books, News paper, Magazines, etc.)	210.03	1.16
Arts and antiques	1.592	0.009
<b>Interdependent Copyright Industries</b>		
Photographic Goods	328.204	1.8
Paper & Paperboard	9225.342	51
Musical Instruments	3.352	0.019
Optical, Photographic Instruments	1621.489	8.96
Miscellaneous Manufactured Articles	630.542	3.49
<b>Partial Copyright Industries</b>		
Silk	104.707	0.89
Wool & Fabrics	15.876	0.09
Carpets	192.985	1.67
Made up Textile Articles	493.226	2.7
Articles of Stone, Plaster, Cement	501.11	2.76
Ceramic Products	2550.947	14.1
Glass and Glassware	1567.035	8.66
Precious Stones / Metals	97.381	0.54
Toys and Games	543.361	3
<b>Non-Dedicated Copyright Industries</b>		
Advertisement TV Cable	0.306	0.001
<b>Total Indirect Tax Contribution (2007-2008)</b>	<b>18088</b>	<b>100.0</b>

Source: Federal Bureau of Revenue

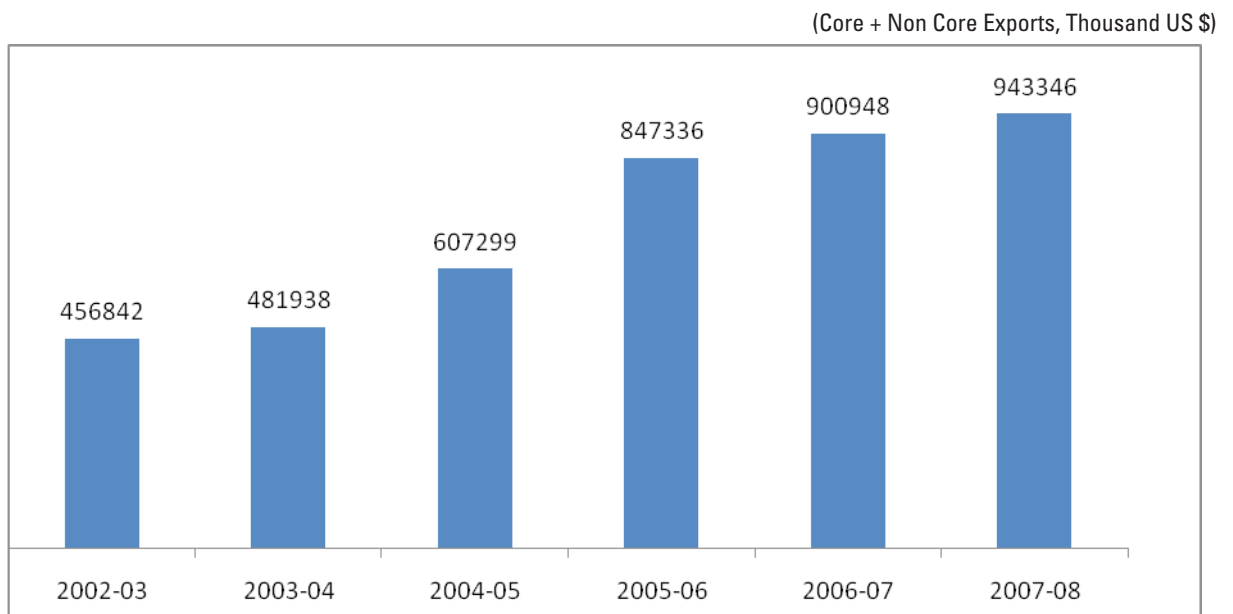
**Figure 6: Sector-wise Share in Tax Revenue Contribution 2007-2008**



### 3.2 Trade in Copyright-Based Industries

The export trend in copyright-based industries is dependent on a) the global economic growth that gives rise to global demand for Pakistani products and b) the competitiveness of local output which in turn depends upon the cost of raw materials and inputs. Figure 7 shows that the export trend seems to be on the rise and between 2003 and 2008 there is an increase of 52 percent. Between 2003 and 2008, the highest growth rate was 28.3 in 2006, while the lowest was in 2008 at around 4.5 percent. A careful percentage of copyright factors to each of the partial industries has been applied so as to reach a more precise indicator of calculating the copyright portion in trade.

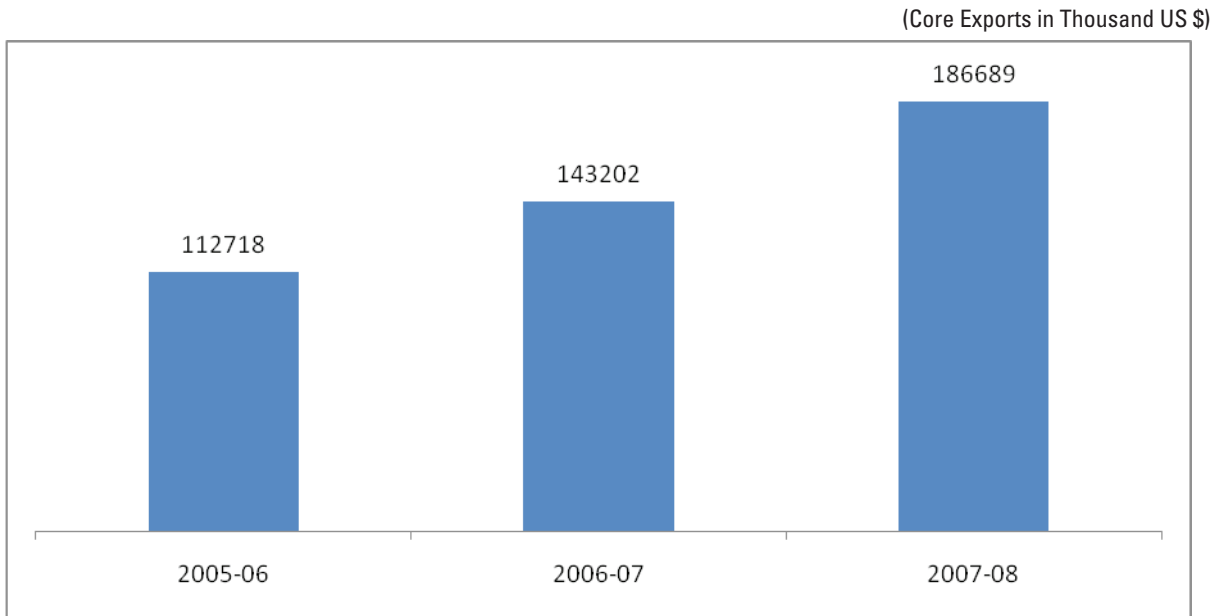
**Figure 7: Overall Exports of Copyright-Based Industries (2003-2008)**



Information concerning the core sector exports during 2002-2008 was acquired from the State Bank of Pakistan (figure 7). During this period, was observed a growth of 1.5 percent contributed mainly by research &

development, information technology and royalties & licenses. The export trends at disaggregated commodity level are given in table 11.

**Figure 8: Core Copyright-Based Industries Exports during 2005-2008**



Pakistan’s export sector still has a long way to attain a reasonable level of indigenisation and diversification. For now, it seems that exports are heavily dependent on imported raw materials and machinery which includes: photographic or cinematographic goods, electrical machinery and parts, optical and precision apparatus, computer and information services.

**Figure 9A: Overall and Core Copyright-Based Industries Imports**

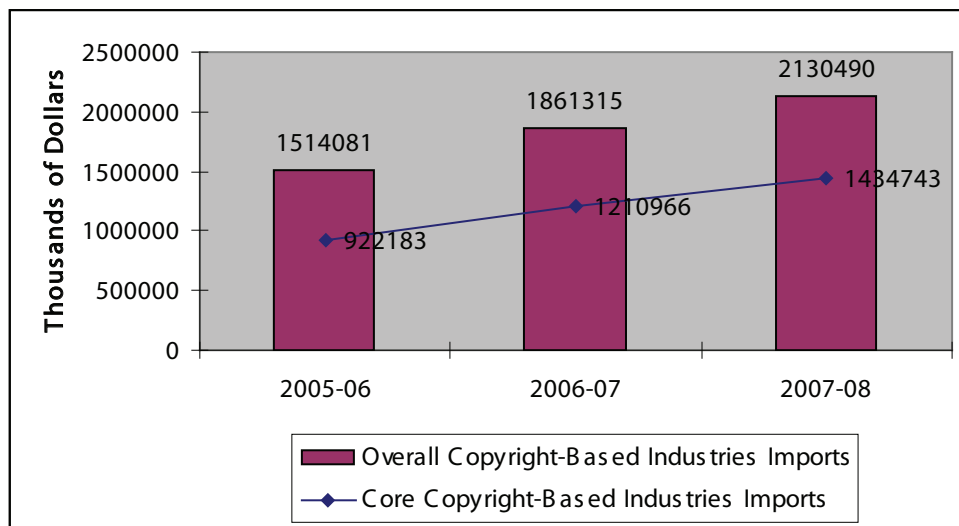
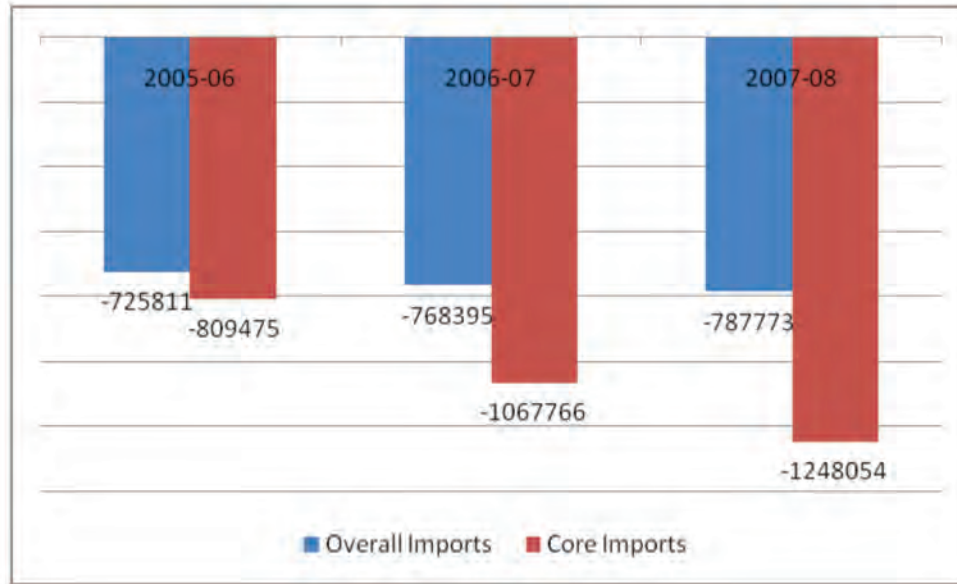


Figure 9A shows a growth of 22 percent in the copyright-based sector’s imports between 2006 and 2008. The core sector’s import growth during the same period was around 35 percent. The imports at a disaggregated commodity level may be seen in Table 11. Due to the higher relative share of imports in the overall external transactions, Pakistan has an overall trade deficit as well as deficit in core sectors (figure 10). The disaggregated values of exports and imports in thousands of dollars are given in Table 12 and Table 13 respectively. The only two sectors that feature on the core side are a) books, newspapers, printing, and b) works of art. Most noticeable is the high value of Apparel and Textile exports.

**Figure 9B: Copyright-Based Industries Trade Balance**



**Table 11: Copyright-Based Industries Exports (2003–2008) Thousand US \$**

Categories	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
<b>Core Copyright Industries</b>						
Books, Newspapers & Printing Industry	3,622	6,086	4,616	3,909	4,365	3,577
Works of Arts	17,260	6,653	23,233	15,432	6,797	2,125
Computer and Information Services				72,000	106,000	154,000
Advertisement market research & public opinion poll				20,071	24,040	23,987
Personal, Cultural and Recreation Services				1,315	2,000	3,000
<b>Total</b>	<b>20882</b>	<b>12739</b>	<b>27849</b>	<b>112,718</b>	<b>143,202</b>	<b>186689</b>
<b>Interdependent Copyright Industries</b>						
Photographic goods	919	852	779	110	85	44
Paper and Paperboard	10,019	13,613	26,296	43,976	21,833	37,304
Sound Recorders and Reproducers, Television accessories	36,522	44,940	101,892	134,605	145,330	74,128
Cinematography	172,094	178,287	192,640	222,013	236,621	275,505
<b>Total</b>	<b>219554</b>	<b>237692</b>	<b>321507</b>	<b>400704</b>	<b>403869</b>	<b>386981</b>
<b>Partial Copyright Industries</b>						
Wood and articles of wood	13,47	11,16	15,73	10,26	10,72	16,90
Apparel and Textile	211278	226038	250700	273757	297027	314069
Carpets and other textile Floor coverings	8160	8111	9759	9503	9088	8422
Special Woven Fabrics, Tufted Textiles Fabrics, Lace	11171	19326	23338	26313	26554	16593
Knitted or Crocheted Fabrics	1408	2453	1820	1398	1977	2693
Articles of Apparel & Clothing Accessorised Knit	71356	85267	95680	97693	106060	107344

**Table 11: Copyright-Based Industries Exports (2003–2008) Thousand US \$ (continued)**

Articles of Apparel / Clothing Access not Knitted	50573	33881	36947	46434	54070	59614
Other Man-Made Textile Articles, Sets, Worm Clothing	68610	77000	83156	92416	99278	119403
Footwear, Headgear	4303	4130	6087	6417	5772	5828
Articles of Stone, Plaster, Cement,	825	1339	1156	1340	1339	1832
<b>Total</b>	<b>216406</b>	<b>231507</b>	<b>257943</b>	<b>281514</b>	<b>304138</b>	<b>321729</b>
Non-Dedicated Support Industries						
Transportation				44282	44778	43050
Communication Services				8118	4961	4797
<b>Total</b>				<b>52400</b>	<b>49739</b>	<b>47847</b>
<b>Copyright-Based Industries Exports (Core + Non-Core)</b>	<b>456842</b>	<b>481938</b>	<b>607299</b>	<b>847336</b>	<b>900948</b>	<b>943246</b>

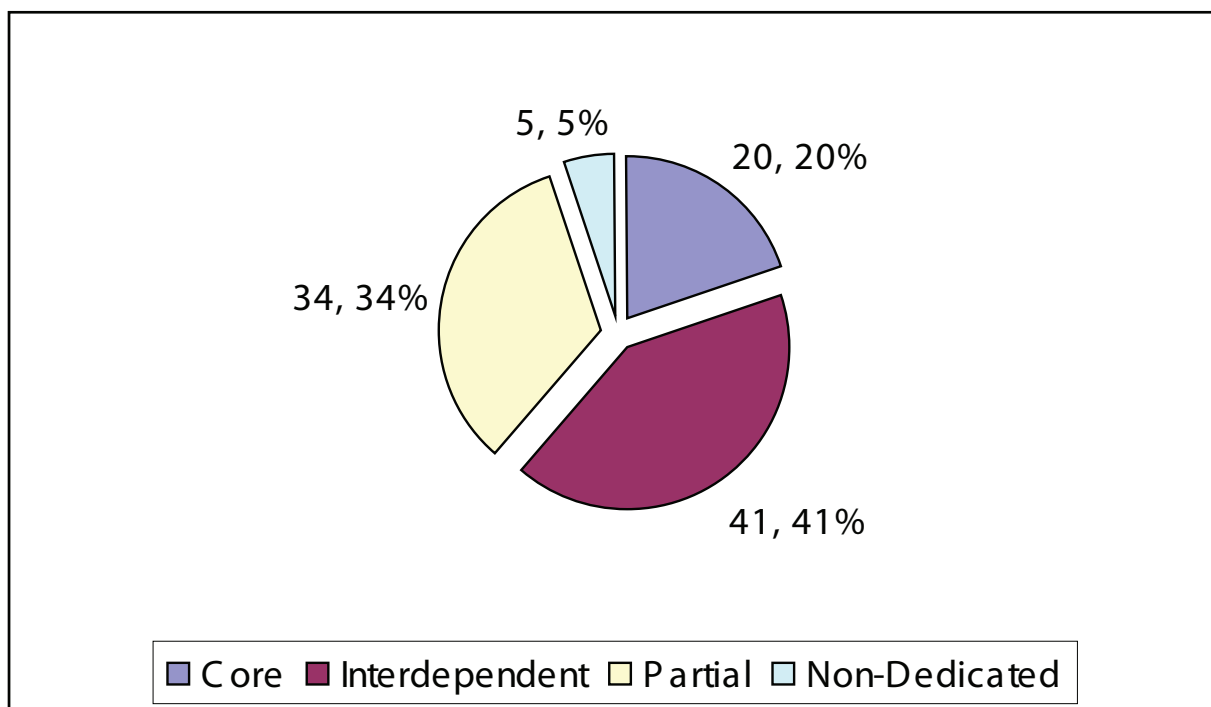
Source: SBP Statistics on Export of Goods and Services (various issues).

**Table 12: Consolidated Export of CBI, 2002-2003 to 2007-2008, Thousand US \$**

Categories	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Core Copyright Industries	5 %	3%	5%	13%	16%	20%
Interdependent Copyright Industries	48%	49%	53%	47%	45%	41%
Partial Copyright Industries	47%	48%	42%	33%	16%	34%
Non-Dedicated Support Industries				6%	6%	5%
Copyright-Based Industries Exports (Core + Non-Core)	100	100	100	100	100	100



**Figure 10: Relative Share of CBI Export in 2007-2008**



**Table 13: Copyright-Based Industries Imports (2006–2008) Thousand US \$**

Categories	2005-2006	2006-2007	2007-2008
<b>Core Copyright Industries</b>			
Books, Newspapers & Printing Industry	31,584	33,693	23,404
Works of Arts	825,982	1,074,809	1,266,535
Computer and Information Services	44,034	90,000	129,000
Advertisement market research & public opinion poll	14,593	11,396	14,804
Personal, Cultural and Recreation Services	6,000	1,070	1000
<b>Total</b>	<b>922193</b>	<b>1210968</b>	<b>1434743</b>
<b>Interdependent Copyright Industries</b>			
Paper and Paperboard, Articles of Paper Pulp	275,944	333,769	410,277
Sound Recorders and Reproducers, Television accessories	43,976	21,833	37,304
Cinematographer (Inter Copyright)	134,605	145,330	74,128
<b>Total</b>	<b>454525</b>	<b>500932</b>	<b>521709</b>
<b>Partial Copyright Industries</b>			
Wood and articles of wood	61,59	6568	7053
Apparel and Textile	1855	1867	2186
Carpets and other textile Floor coverings	258	245	284
Special Woven Fabrics, Tufted Textiles Fabrics, Lace	411	377	462
Knitted or Crocheted Fabrics	152	166	181
Articles of Apparel & Clothing Accessorised Knit	195	285	217
Articles of Apparel/Clothing Access not Knitted	112	147	280
Other Man-Made Textile Articles, Sets, Worm Clothing	727	647	762
Footwear, Headgear	509	656	719
Articles of Stone, Plaster, Cement	2582	2591	2769
<b>Total</b>	<b>6801</b>	<b>13549</b>	<b>14913</b>

**Table 13: Copyright-Based Industries Imports (2006–2008) Thousand US \$ (continued)**

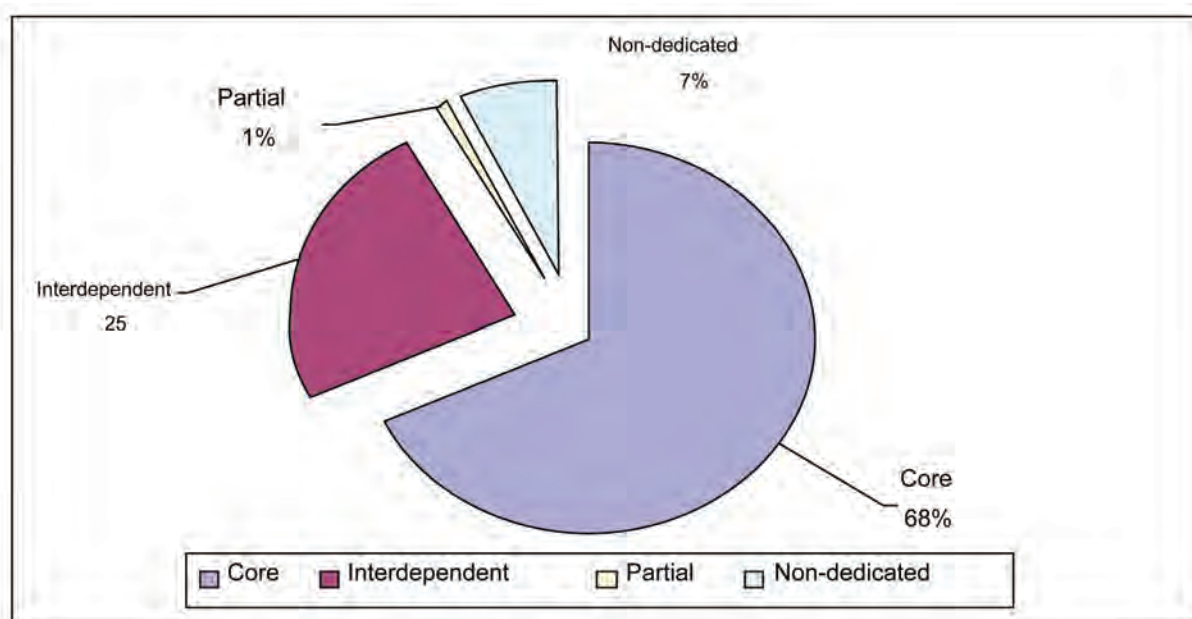
<b>Non-Dedicated Support Industries</b>			
Transportation	117384	128535	151085
Communication Services	4141	4018	4387
<b>Total</b>	<b>121525</b>	<b>132553</b>	<b>155472</b>
<b>Copyright-Based Industries Imports (Core + Non-Core)</b>	<b>1505044</b>	<b>1858002</b>	<b>2126837</b>

Source: SBP Statistics on Import of Goods and Services (various issues).

**Table 14: Consolidated Imports of CBI, 2005-2006 to 2007-2008, Thousand US \$**

Categories	2005-2006	2006-2007	2007-2008
Core Copyright Industries	61%	65%	68%
Interdependent Copyright Industries	30%	27%	24%
Partial Copyright Industries	1%	1%	1%
Non-Dedicated Support Industries	8%	7%	7%
Copyright-Based Industries Imports (Core + Non-Core)	100	100	100

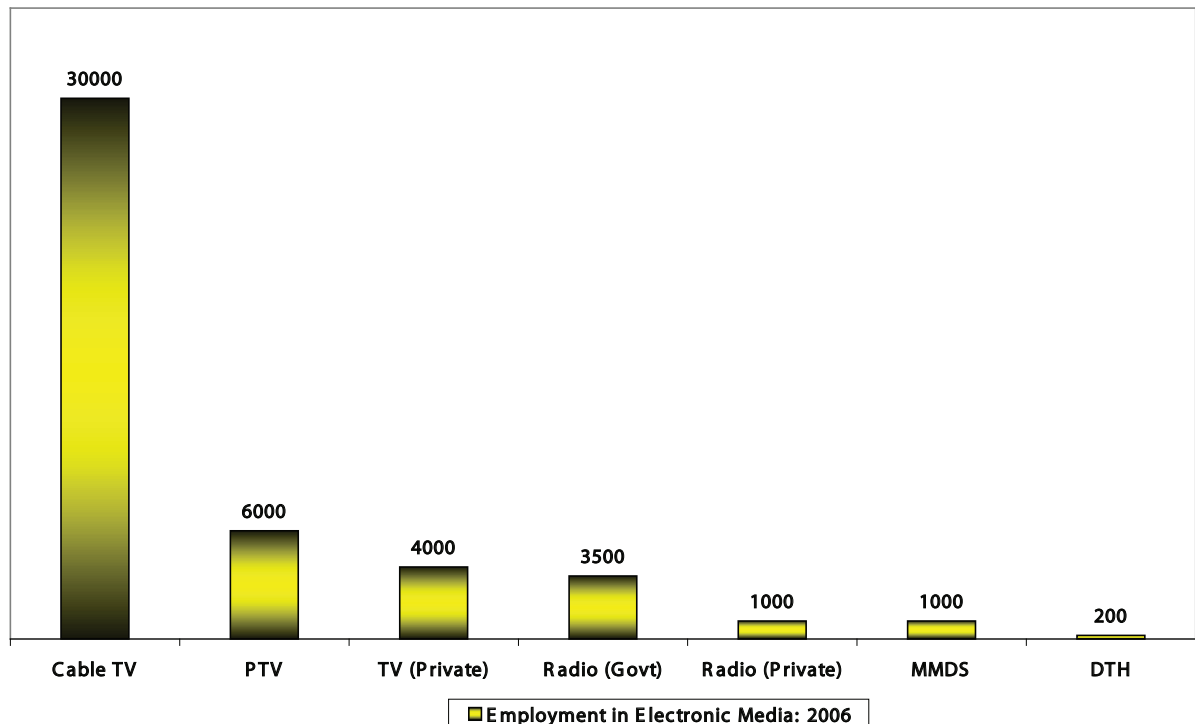
**Figure 11: Relative Share of CBI Imports in 2007-2008**



### 3.3 Employment in Copyright-Based Industries

Employment estimates provided by Pakistan Electronic Media Regulatory Authority are depicted as Figure 14. The cable TV sector, now predominantly established in the private sector, remained the largest employer in 2006 followed by the state-run Pakistan Television, private television channels and Pakistan Broadcasting Corporation.

**Figure 12: Employment in Core Copyright-Based Industry 2006: Electronic Media**



The employment in electronic media has recently been increased due to the opening up of media through perpetual deregulation that allowed government to offer licenses to the private sector. The numbers of licenses issued with the corresponding percent share of the media segments for the year 2006 are given in Table 15. The largest growth is in case of Cable TV followed by FM Radio. The recent additions to electronic media include multi-channel multi-point distribution system (MMDS) and direct-to-home technology (DTH).

**Table 15: Operational Licenses during 2006**

Segment	No. of Licenses	Percentage Share
Cable TV	1301	92.14
FM Radio	86	6.09
Satellite TV	16	1.13
MMDS	5	0.36
DTH	2	0.14
Teleport	2	0.14
Total	1412	100

Source: Pakistan Electronic Media Regulatory Authority (PEMRA).

The television sector owing to the mushroom growth of private TV channels at regional, provincial and national level, remained on top with an investment of 43 million dollars. As the majority of Pakistani population lives in the rural areas, television sector still has attractive prospects of growth in untapped districts. Many television channels have also specified their scope by focusing on one of the key niches like current affairs, education, fashion, drama, sports, etc.

Apart from newspapers and periodicals, TV channels, a large number of graphic designers are working in the printing presses designing wedding cards, promotional leaflets, posters, banners and hoardings.

Photographers though not members of the Photographic Society of Pakistan and unaware of copyright concepts are traditionally available in almost every town and city. In big cities one finds a photo studio around every corner. These photographers had been mostly making portraits and passport photos for all kinds of forms, applications including National ID cards and events. An estimation of employment provided by core copyright sectors is given in table 13.

**Table 16: Employment Contribution by Core Copyright Sectors – 1999 & 2007**

No	Sector	Number of Enterprises		Estimated Employment	
		1999	2007	1999	2007
1.	Newspaper & printing	1344	1820	26160	38780
2.	Data processing & IT	50	1101	990	24222
3.	Cultural & Recreation services	-	-	175000	205000
4.	Radio & TV broadcasts	20	1422	6500	44700
5.	Graphic Designing	30000	67000	90000	268000
6.	Photography	15000	18000	45000	54000
	<b>Total</b>	<b>46414</b>	<b>89343</b>	<b>343650</b>	<b>634702</b>

Source: Information received from Pakistan Media Regulating Authority-PEMRA, Pakistan Film Producers Association-PFPA, Pakistan Software Houses Association-PASHA, Pakistan Association of Printing and Graphic Industry-PAPGAI, Audit Bureau of Circulation-ABC, Photographers Society of Pakistan-PSP, Associated Press of Pakistan-APP, face to face Interviews with professional leaders, internet search and provisional estimation.

Employment in cultural and recreation performance is estimated keeping in mind the large number of families who have traditionally been involved in music, dance, street singing and comedy for centuries. Over 50,000 performers from these families are living in the city of Lahore alone with about 25,000 concentrating in Shahi Mohalla. Amongst these performers some like Alam Lohar, Allan Faqir, Faiz Baloch, Zarsanga have created world popular music but could not get a reward for being unaware of their rights as creators.

Efforts were also made to gather information regarding value and contribution of performance like music, dance, theater, etc. in hotels and restaurants. Though data regarding registered hotels (4 or 5-star hotels) is available in national statistics, it becomes very difficult to account for lower rated hotels which amount to a substantial share of business in this sector. The local guest houses have become a preferred choice of the spectators / guests in the prevailing set of security conditions, especially with high level risk at big hotels and restaurants. According to a cautious estimate, the total number of 3-star or lower level of hotels is roughly exceeding 1000 in the country. Furthermore, the numbers have also been estimated for restaurants, clubs, shrines, cinemas, standing theaters, marriage halls and other function places. This number is based on information available in census of industries, data from associations and reports of some previous studies conducted by the Federal Bureau of Statistics.<sup>13</sup>

The employment per entity is an average estimate obtained from Desh (1995).<sup>14</sup>

Simply by multiplying the number of hotels by category with their respective employment levels, an estimate of total employment can be calculated. Then using a *copyright factor*, the contribution of copyright sector in the overall employment in hotels and restaurants is determined. The total employment comes to around 1.73 million and the creative employment<sup>15</sup> comes to around 0.259 million. Thus, the share of creative

<sup>13</sup>The employment numbers are raw in their present form. It is hard to obtain full-time equivalents (FTE) in the absence of a nationally representative labour market survey. The Labour Force Survey conducted by the Federal Bureau of Statistics covers only selected districts in the four provinces.

<sup>14</sup>Desh, Bandhu (1995): Jammu, Kashmir, and Ladakh: Tourist Guide.

<sup>15</sup>These estimates were made after a thorough survey / interview of small hotels with no star value to big start hotel status. Interestingly, in similar hotels and restaurants music is played through their audio system or lives with musician.

employment in the overall employment of hotels and restaurants stands around 15 percent. This is represented by the persons working in hotel industry linked with music either live or by playing prerecorded CDs / DVDs, etc., theatre or showing TV dramas & other shows in the hotel rooms, lobbies or restaurants.

From the above estimation we can say that the employment contribution of core copyright sector is around 0.8 million.

## 4. Analysis of Certain Sub-sectors in the Core Copyright Industries

Data regarding growth of core industries was acquired from the Federal Bureau of Statistics and will be analysed and presented individually (category-wise) in this chapter. This will help to understand not only the supply aspect of copyright industries but also the possible changes in the social preference over time.

### 4.1 Newspapers & Periodicals

At the time of independence (1947), there were very few newspaper publishers in Pakistan. Three newspapers *Khayber Mail*, *Alfalah* and *Aljameeat* were published from Peshawar while only one newspaper *Millat* was published from Karachi. Other newspapers like *Nawa-e-waqt*, *Inqilaab*, *Shahbaz* and *Zamindar* were regular publications. In 2007 the number of dailies, weeklies and other periodicals stood at 1820 in Pakistan (Table 15). Almost all Pakistani magazines are exported to the Middle East while some of the newspapers like *The News*, *Dawn*, *Nawa-e-waqt* and *Jang* have their regular readers abroad. *The News* and *Jang* are published from London as well. Circulation of these publications is well over 1.3 million according to the Audit Bureau of Circulation-ABC (Table 17).

**Table 17: Circulation of Newspapers and Periodicals**

Category	1998	2003	2007	% Growth 1998 – 2007
Dailies	5114743	6245775	9934951	94
Weeklies	380628	588058	1099628	189
Fortnightlies	82639	96562	119217	44
Monthlies	936989	1312635	2546641	172
Quarterlies	10993	6875	31494	186
Bi-Annual	125	–	–	–
Annual	522	730	855	64

Source: Audit Bureau of Circulation, Ministry of Information and Broadcasting.

The circulation of all the categories of newspapers and periodicals shows an increase with time except for bi-annual publications (Table 17). The highest increase is seen in the circulation of weeklies with a growth rate of 189 percent during the period 1998-2007, followed by quarterlies which grew by 186 percent in the same time period. The data regarding circulation of bi-annual publications is not available after 1998 from which we infer that the number of bi-annual publication had decreased overtime to a negligible amount. The circulation of quarterlies shows a decline from 1998 to 2003 (decreasing from 10993 to 6875) however recovered by 2007 with a rise to 31494.



**Table 18: Total Number of Newspapers and Periodicals by Category**

Category	1998	2003	2007	% Growth 1998/2007
Dailies	277	204	437	58
Weeklies	365	219	463	27
Fortnightlies	92	89	92	0
Monthlies	492	393	686	39
Quarterlies	84	34	71	-15
Rest	34	6	71	109
<b>Total</b>	<b>1344</b>	<b>945</b>	<b>1820</b>	<b>35</b>

Source: Audit Bureau of Circulation, Ministry of Information and Broadcasting.

The total number of newspapers and periodicals available in the country increased by 35 percent (Table 18) between the period 1998 to 2007, while the growth rate increased for dailies, weeklies and monthlies. It was nil in case of fortnightlies and in fact decreased for quarterlies. The highest increase was observed in the case of dailies which increased by 58 percent, followed by monthlies (39 percent) and weeklies (27 percent). The increase, both in the number of newspapers and periodicals has not been on a smooth trajectory. It was observed that this number decreased from 1344 to 945, however recovered by 2007 rising up to 1820. Almost all categories of newspapers and periodicals declined from 1998 to 2003. The highest decrease during this period is seen in the case of weeklies followed by monthlies and dailies.

## 4.2 Cinema

Pakistan inherited its cinema with major studios situated in the city of Lahore. These studios started producing films in 1930s and Lahore became known as "Lollywood". Until 1965, a number of films that were produced in both Pakistan and India were displayed in either country depending upon their worth and popularity. After 1965 the import of Indian films was banned. This was the first jolt for the cinema business in Pakistan.

In the late seventies VHS format of video cassette recorders were introduced for home viewing of films. Although banned in cinemas, Indian films VHS tapes became common household phenomena in Pakistan. Thousands of shops opened throughout the country, in many cases renting out all kinds of pirated films on VHS tapes. While cinema was subjected to a host of regulations, permissions, licenses and a very strict censorship; VCRs were showing uncensored films in every house without any heed of rules and regulations. This had a very negative impact on the cinema industry. In the 1980s more restrictive regulations came into effect for the film industry. That was the time, Pakistan film industry took a sharp nose-dive. Films dropped from a total output of 98 films in 1979 (including 42 in Urdu) to only 58 films (26 in Urdu) in 1980.

**Table 19: Films Released during 1998-2007**

Language	1998	2003	2007	% Growth 1998 – 2007
Urdu	29	15	10	-66
Sindhi	0	0	0	-
Punjabi	5	17	15	200
Pushto	17	11	14	-18
<b>Total</b>	<b>51</b>	<b>43</b>	<b>39</b>	<b>-24</b>

Source: Pakistan Film Producer's Association.

Table 19 shows the number of films released during the years 1998 to 2007. The total number of films declined by 24 percent. This was accompanied by a decline in the number of cinemas in the country from 493 in 1998 to 106 in 2007 (-78 percent). The films produced in the Urdu language declined by 66 percent followed by Pushto language's films which declined by 18 percent. The number of Punjabi films, however, increased by 200 percent. This is partially due to the underlying demographic structure of the Punjab province. More than 50 percent of the population resides in Punjab which also contributes the major proportion of youth in the country.

**Table 20: Documentary Films Produced and Released during 1998-2007**

Region	1998	2003	2007
Federal			
Produced	8	2	-
Released	4	2	-
Punjab			
Produced	3	7	7
Released	3	6	5
Sindhi			
Produced	1	-	4
Released	1	-	4

Source: i) Ministry of Information & Broadcasting (Central), Karachi, ii) Provincial Public Relation Departments.

The Punjab province also stands out in terms of the documentaries produced and released (Table 20). In terms of public outreach, television and radio are the most widely used communication media.

### 4.3 Radio & Television

The first ever radio station of the present day Pakistan was established in Peshawar in 1936; within a year's time the second radio station was established in Lahore in 1937. Today the state owned Pakistan Broadcasting Corporation (PBC) has 24 radio stations all over the country while there are 116 private FM channels. In 1949 PBC started its external service primarily to cater to listeners in India, China, Afghanistan, Russia, Iran and its World Service for Southeast Asia, Europe and the Middle East in 1973.

Television has traditionally been the source of information and entertainment for the people of Pakistan for over seven decades now. The advertising and licensing earnings of all the radio and TV channels in Pakistan stand well over Rs 10 billion per annum. There has been enormous growth in the number of FM radio stations and TV channels in the past fifteen years. Government licensed television channels have gone up from 3 to 82 during this period. The total (spend) advertising revenue stood at Rs 25.05 billion (US \$318 million) in 2009.

TV ads spend (revenue) stands at Rs 11.91 billion, around 47% of the total ads spend in the last fiscal year 2007-2008. This is also lower than the 88% increase in 2005-2006 and the 55% increase in 2006-2007. The latest data (June 2009) reports a notable rise in TV audience attributable to higher levels of electrification in rural areas. The industry however, is facing acute challenges of non-availability of educated and trained workforce, lopsided marketing and copyright piracy.

Table 21 indicates a decline in the number of TV dramas produced and telecast. From 1998 to 2006 the number of TV dramas telecast declined from 695 to 345 (-50 percent) but recently the drama production and telecasting took a sharp U-turn from 2007 and the decline for the same period was from 695 to 595 (hence coming down to -14 percent).

**Table 21: TV/Radio Dramas Telecast / Broadcast**

Frequency	1998	2003	2006	2007	% Growth 1998-2006	% Growth 1998-2007
TV Dramas Produced	708	561	433	629	-39	-11
Dramas Telecast	695	521	345	595	-50	-14
Dramas Broadcast	554	826	1148	2438	107	340
Radio Drama Produced	127	666	214	704	69	454

Source: i) Pakistan Television Corporation Limited, ii) Pakistan Broadcasting Corporation Limited.

With the liberalisation of the media and its regulatory policy, the rise in the number of private radio channels was seen across all provinces. Due to this we see an increase in the number of radio dramas broadcast from 554 in 1998 to 2438 in 2007, indicating a growth of 340 percent. The number of radio dramas produced also increased from 127 in 1998 to 454 in 2007 indicating a growth of 454 percent.

#### 4.4 Advertising

TV viewership has undergone an amazing transformation since the arrival of satellite TV which is currently available in about 45% of all TV homes (Table 22). Channels are accessed mainly via cable operators at a relatively low cost. In the past five years, TV viewing has risen considerably and varies dramatically by region. Increased availability at a relatively low cost has also led to higher consumption of satellite channels of both local and international origin. Satellite TV is now available to 38 million people across the country with STAR Plus and PTV leading the pack.

**Table 22: Television Viewer-ship, TV Channels and Internet Users**

Parameters	Actual (Number)	Percentage
Population	164,223,500	
Total Homes	24,150,515	
Household Size	6.8	
TV Homes	16,422,350	68
Multichannel Homes	7,390,058	45
Internet Users	18,500,000	11

In a recent survey conducted by Gallup Pakistan, 35% of respondents claimed to have watched STAR Plus in the previous week vs a 57% reach for subscription TV in all TV homes. In subscription TV homes, channels such as STAR Plus and Geo News regularly reach 60%. According to Gallup Pakistan, total advertising expenditure revenue has increased by 10% in the last fiscal year from Rs 22.76 billion (US \$289 million) to Rs 25.05 billion (US \$318 million). This is significantly lower than the 62% increase in 2005-2006 and the 32% increase in 2006-2007.

TV ads spend (revenue) has increased by 13% (from Rs 10.55 billion to Rs 11.91 billion), around 47% of the total ads spend in the last fiscal year. This is also lower than the 88% increase in 2005-2006 and the 55% increase in 2006-2007. In terms of share of spending, however, TV's share has increased by just 1%. Gallup Pakistan offers advertising expenditure services in Pakistan as well as national television viewing statistics. The latest data (June 2009) reports a notable rise in TV audience attributed to higher levels of electrification in rural areas. Medialogic has installed a metro panel of approximately 600 meters across Karachi, Lahore, Rawalpindi and Islamabad to gauge second-to-second viewer ship data for more than 4,000 individuals residing in metropolitan Pakistan. Source: CASBAA, Gallup Pakistan, Internet World Statistics (as of September 2009).

Larger firms in Pakistan had a restricted variety of advertising choices for a considerable number of years and appealing fresh media generally obtainable all over the planet were virtually unheard of. However, all that became the past in the late nineties as the requirement for creative kinds of ads rose as a bigger number of firms competed for a portion of the budding market. One such form was digital printing that could be utilised for several indoor and outdoor purposes.

Hoarding ads and store signs in Pakistan were mainly manually painted and were subject to a considerable number of problems such as the fading of colours and average composition, with most hoardings and shop frames being manufactured with low gauge metal sheets or plastic. A number of suppliers gave superior quality structures with life-like painted pictures, but the time it required to churn out these signs were massive because of the labour-intensive process.

Screen-printing for posters was also widespread in Pakistan. While automated procedures were utilised everywhere throughout the world, Pakistan's sector was still primarily a labour-intensive process. Screen-

printing was fast and easily available the country. However, the quality was gravely poor and similar to the other widespread media faced issues like colour fading and frequent theft.

The original digitally printed hoardings or skins, as often alluded to in the business, were brought in from international firms in countries like Singapore. The impression produced by these splendid quality displays was the beginning of a quick and much desired revolution in the advertising business in Pakistan. Firms thronged to confirm orders for printed billboards and the shape of outdoor media in Pakistan was altered from then on. In a couple of years, Pakistan had some of its own limited print shops and with low-cost technologies obtainable from China, the printing business turned into a widespread and lucrative industry.

#### 4.5 Computer Software

Pakistan's IT Industry was almost non-functional until 2000. A meagre sum of US \$ 22 million was being brought in as export earnings. However, since 2004 software creation and IT industry have made progress with time both locally and outside the country witnessing a high annual growth rate (averaging 50%) in Pakistan.

With the help of the Pakistan Software Export Board, over 120 Pakistani companies are now ISO certified. The Pakistan Software Houses Association (PASHA) estimates that today Pakistan's IT industry is worth over 2 billion dollars. Foreign remittances of IT related services and products are now over 170 million dollars (as reported by the State Bank of Pakistan). By 2013 it is estimated to grow beyond 1 billion dollars. There are over 1,100 companies registered with the Pakistan Software Export Board (PSEB) and over 100,000 people are employed by the industry.

With regards to sectoral data collection and understanding, information was also gathered from sectoral associations which could be interpreted in terms of their outreach in the formal sector. These associations filled a questionnaire (Appendix II), after which meetings were held in order to refine the gathered information. The required statistics was made available by: Pakistan Handicrafts, Associated Press of Pakistan (APP), Pakistan Association of Printing and Graphic Arts Industry (PAPGAI), Pakistan Electronic Media Regulatory Authority (PEMRA), Pakistan Film Producers Association (PFPA), Pakistan Advertising Association (PAA) and Photographic Society of Pakistan (PSP). The number of registered firms with each of these associations and their main responses are summarised in Table 23.

**Table 23: Summarised Information Regarding Different Sectoral Associations**

Associations	Registered Firms	Annual rate of growth	Importance of factors shaping future*	Challenges	Type of Govt. Support Required
Handicraft	25	20	4	Technology	Technological Assistance
APP Associated Press of Pakistan	243	70	1	Technology	Copyright protection
PAPGAI Pakistan Association of Printing and Graphic Arts Industry	594	15	1	Financial	Relaxation in Duties & Taxes
PEMRA Pakistan Electronic Media Regulating Authority	2400	12	1	Technology	Check monopolies / abuse of power

**Table 23: Summarised Information Regarding Different Sectoral Associations (continued)**

PFFA Pakistan Film Producers Association	376	5	1	Copyright infringement	Enforce Copyright Laws / Tax holidays
PSP Photographic Society of Pakistan	70	5	1	Copyright protection	Financial support
PAA Professional Advertisers Association.	90	7	1	Global competition	Copyright protection

\*where 1 = technology, 2 = global competition, 3 = financing, 4 = government regulations, 5 = access to skilled manpower, 6 = others.

Source: Own calculation.

The information regarding wages of different personnel varied across sectors. In the case of Pakistan handicrafts, the monthly average wages were Rs 5,000 for unskilled and Rs 17,000 for skilled labour. For APP, the monthly average wages were Rs 30,000 for unskilled and Rs 70,000 for skilled professionals. In the case of PAPGAI, unskilled labour is earning Rs 7,000 and skilled labour is earning Rs 13,000 which is low compared to workers associated with this sector in developing countries. The main reasons seem to be, the lack of funding, branding and marketing infrastructure available with these firms. No data on wages was provided by the PFFA as the film producers hire all employees on contract basis and the contract is specific to the film under production.

Most of the associations give high importance to the protection of copyrights and have demanded an increased public sector support for adopting modern technological methods in order to bring their firms in line with the international best practices. In some areas such as electronic media there is also a need to check regional monopolies and related activities.

## 5. International Comparisons

It is usually hard to compare a developing country's performance in any specific sector with that of developed economies. However, such economies are insightful in the lessons they render for the developing countries as to how and what sectoral development path to adopt. A comparison of various concerned parameters / indicators with various countries is given in table 21.

**Table 24: International Comparison regarding Contribution of Copyright Industries towards GDP and Employment**

Country	Reference Year for Study	Contribution towards GDP					% Contribution of Copyright Industries in Employment				
		Total Share	Core	Inter-dependent	Partial	Non-dedicated	Total Share	Core	Inter-dependent	Partial	Non-dedicated
Bulgaria	2005	2.81	1.57	0.62	0.09	0.52	4.3	2.29	0.73	0.27	1
Jamaica	2005	4.81	1.7	0.74	0.47	1.9	3.03	1.79	0.31	0.23	0.68
Lebanon	2005	4.75	2.53	0.71	0.62	0.89	4.49	2.11	0.73	0.7	0.95
Mexico	2003	4.77	1.55	1.69	0.85	0.68	11.01	3.41	3.65	2.53	1.41
Philippines	1999	4.82	3.5	0.96	0.04	0.29	11.1	8.81	1.4	0.2	0.6
Canada	2004	4.7	3.5	0.81	0.08	0.31	5.4	4	0.91	0.16	0.33
Hungary	2002	6.66	3.96	1.24	0.45	1	7.1	4.15	1.25	0.61	1.07
Latvia	2000	5.05	2.9	1.1	0.28	0.77	5.59	3.7	0.7	0.44	0.75
<b>Pakistan</b>	<b>2000</b>	<b>4.45</b>	<b>1.37</b>	<b>0.11</b>	<b>0.98</b>	<b>1.99</b>	<b>3.71*</b>	<b>0.7</b>	<b>0.04</b>	<b>1.37</b>	<b>1.6</b>
Singapore	2001	5.67	2.85	1.76	0.09	0.97	5.8	3.64	1.24	0.18	0.74
USA	2004	11.09	6.48	2.13	0.4	2.08	8.53	4.07	2.17	0.26	2.03
Australia	2007	10.3	7.3	2	0.4	0.7	8	4.97	1.81	0.57	0.65
Croatia	2004	4.27	2.99	0.88	0.32	0.07	4.64	3.22	0.93	0.41	0.08
Romania	2005	5.55	3.55	1.08	0.53	0.39	4.19	2.36	0.58	0.82	0.43
Colombia	2005	3.3	1.9	0.8	0.3	0.4	5.8	1.7	0.7	1.9	1.5
Russia	2004	6.06	2.39	0.76	0.27	2.64	7.3	4.29	0.75	0.56	1.69
Ukraine	2005	2.85	1.54	0.68	0.1	0.54	1.9	1.16	0.46	0.08	0.2
Netherlands	2005	5.9	4	0.4	0.9	0.6	8.8	6.2	0.6	1.1	1

\* The employment estimation is for 2006.

Source: Various WIPO Studies.

Table 24 exhibits the comparative position on the contribution of copyright-based industries towards value addition and employment. The reference years for most of the studies range between 2000 and 2005 except for The Philippines. The copyright sector of the US seems to have the highest contribution in value addition (in the sample of countries selected). This is followed by Australia, Hungary and Russia. Pakistan's copyright sector contributes to 4.45 percent of the overall GDP. The core sector on its own contributes to 1.37 percent supplemented by the interdependent (0.11%), partial (0.98%) and non-dedicated (1.99%) sectors.

The contribution towards employment is highest in the Philippines (11.1%) followed by Mexico (11.01%), The Netherlands (8.8%) and The USA (8.53%). In the case of Pakistan the contribution of the copyright sector towards employment generation stands at 3.71 percent, supplemented by the core (0.7%), interdependent (0.04%), partial (1.37%) and non-dedicated (1.6%) sectors.

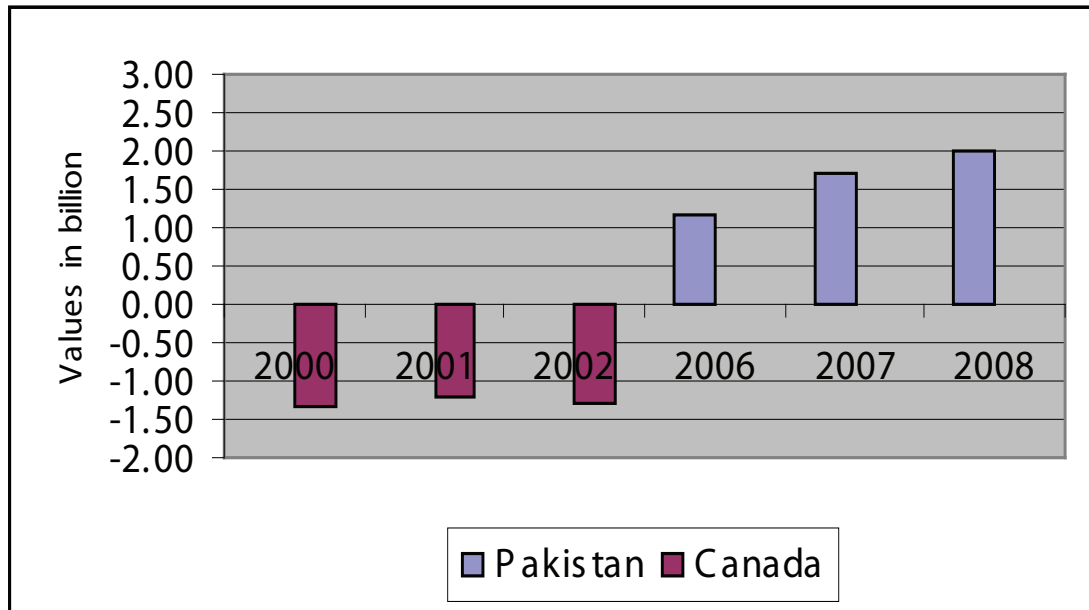
Accordingly in the context of GDP, the USA and Australia stand at a high percentage of 11% and 10% respectively, while Pakistan is comparable to Jamaica, Lebanon, Mexico, The Philippines, Canada and Croatia. On the employment side it can be seen that Pakistan stands third lowest after Ukraine and Jamaica.



No such study has been conducted in this region so far (South Asia) and it is becoming difficult to make comparison with the developed countries. The full similarity of these studies are not possible although, the related comparable studies are of Hungary<sup>16</sup> and Colombia.

In order to make a comparison of the contribution of copyright based industries in developing and developed countries, data regarding Pakistan and Canada's trade balance is depicted as figure 13.

**Figure 13: Contribution of Copyright-Based Industries in Trade Balance**



Direct comparison of the trade balance between two countries with uneven economies is not possible. The Canadian study discussed the data on imports up to 2002 and this study takes it onward from 2005-2006 up to 2007-2008. Moreover, Canada was a net importer of trade with \$1.35 billion in 2000 and \$1.30 billion in 2002. It almost shows a slight decline in trade balance. While in the case of Pakistan, it remained a net exporter of trade<sup>17</sup>, in 2005-2006 and its value was \$1.17 billion and reached US \$ 2 billion in 2007-2008.

The comparison of contribution of copyright-based industries towards employment generation is trivial given the contrast between the workers absorption in these industries found in developed and developing countries.

<sup>16</sup>See. Penygey and Munkácsi (2005).

<sup>17</sup>Includes apparel and textile sector exports.

## 6. Conclusions and Policy Recommendations

---

The results that emerge from the analysis of data gathered from direct or indirect sources have significant policy relevance. Based upon the analysis of all the core and sub-sectors of copyright and their economic contribution, the following conclusions and policy recommendations can be made:

- Despite of having a lot of potential, the copyright-based industries are largely underestimated both in terms of government support and general appreciation.
- The copyright industries still do not benefit from the full scope of protection that is offered in other countries and their adequate protection should be considered by the relevant authorities.
- The existing Copyrights Laws must be enforced effectively by the concerned authorities to protect the rights of the individuals / organisations concerned.
- The sectors / disciplines of competitive nature with enormous potential of earnings / revenues should be supported more actively by the government.
- Private sector must be facilitated to come forward as a front line partner in searching and harnessing the potential of individuals / institutions to bring them in mainstream economy.
- All stakeholders involved in different interdependent copyright industries like: paper & paper board, wood & wood products, textile, ceramic and glass products, etc. should be sponsored through an harmonised and integrated program partially sponsored by the government and the concerned industry.
- Available local and acquired skill, wisdom and techniques should be integrated through a well coordinated mechanism across the country and institutionalisation in this regard may be done as first priority.
- Inland and foreign study visits of the artisans and creators of any original work and those having potential for this must be organised.
- A simple but thorough handbook encompassing all essential information should be published with key messages and contacts to guide industry professionals.
- Service delivery of IP Registries, especially of the Copyright Office to be improved through automation and BPR (Business Process Re-engineering).
- Public awareness, advocacy & behavioural change communication to be enhanced:  
Sufficient funding may be made available to use all media tools including electronic and print media as well as billboards, seminars, workshops, documentaries, etc. for increasing public awareness and reinforcing advocacy and behavioural change communication.
- Enforcement coordination to be improved:  
IPO Pakistan should take responsibility for hosting enforcement coordination meetings every month, where the situation of piracy in the country is analysed, strengths and weaknesses appraised and a monthly third party monitoring is not only discussed but responsibility of failures is fixed.
- Dedicated units in all enforcement agencies to be created:  
Special enforcing units may be created in the Collectorates of Customs, Police and Federal Investigation Agency, who should be responsible for registration of complaints, investigations of complaints, routine IP infringement detections, arrests and seizures, and attending the meetings hosted by the IPO Pakistan.
- Specialised courts to be established, the Copyright Board may be given more powers:  
The time taken in rectification of mistakes, whether or not intentional, and in decision making on complaints and appeals of the aggrieved parties allow the usurper to take full advantage for as long as the decision is pending and even afterwards. It is therefore very important to strengthen the Copyright Board and establish special courts for speedy justice to be given in copyright infringement cases.
- Capacity building of IPO professionals – collaboration with an existing institute:  
Instead of the IPO establishing its own IP Academy in the same office, an education institute already involved in IP related research or giving education in creative or related fields may be asked to collaborate with IPO Pakistan and be given funds with the task of training on IP related subjects. In this regard, an international institute of IP research and studies / management training, such as the International Intellectual Property Training Institute of Korea can be studied as a possible model.
- IPO Pakistan must practically help Establish a Collective Management Organization (CMO):  
Pakistan does not have a single CMO. WIPO has provided assistance in setting up a CMO. However, the commitment by the IPO in this regard must be reinforced. It is recommended that a CMO is established under the principles of public-private partnership.

- Regularisation of Video Shops:  
Video selling / renting as well as retail DVD shops need to be regulated, for instance by granting of licenses by PEMRA.
- Strengthening the Private Public Partnership approach in the field of IPR:  
IP infringement can be reduced by raising awareness and by focusing on a comprehensive strategy to actively combat it. Advisory Committees of experts from private sector as well as public sector may be established by IPO (Pakistan) to help the government in its efforts to strengthen the enforcement of IP rights.

## Appendix 1 Questionnaire for Associations

---

### ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES

(Time required: 25 Minutes)

1. Name of Respondent (on behalf of the association): \_\_\_\_\_
2. Designation in Association: \_\_\_\_\_
3. Length of time with Association: \_\_\_\_\_
4. What is the role of your Association (brief objectives)? \_\_\_\_\_  
\_\_\_\_\_
5. How long has this association been operational? \_\_\_\_\_
6. At how many administrative levels does your association operate (federal / provincial / local, etc.)? \_\_\_\_\_  
\_\_\_\_\_
7. How many company / firms are registered with your association? \_\_\_\_\_
8. Can you give us an approximate figure of active people employed / registered with your association?  
\_\_\_\_\_
9. What are the average skilled and unskilled wage rates (or monthly salaries) in your industry (specify wage according to employment categories if possible, see labour force survey)? \_\_\_\_\_
10. Does the association maintain a record on overall sales / turnover in your industry? [if yes then ask specific values for years between 2000 – 2008] \_\_\_\_\_
11. What are the future global trade prospects for your industry? \_\_\_\_\_  
\_\_\_\_\_
12. Does the association maintain a record on the value of trade (export and import)? [if yes then ask specific values for years between 2000 and 2008] \_\_\_\_\_
13. Does the association maintain a record on the value of royalties and license fee paid and received? [if yes then ask specific values for years between 2000 – 2008] \_\_\_\_\_
14. Does the association maintain a record on the overall contribution towards tax revenues in Pakistan? [if yes then ask specific values for years between 2000 – 2008] \_\_\_\_\_

15. What in your opinion will be the rate of growth of your industry in the medium term (3 – 5 years)? \_\_\_\_

\_\_\_\_\_

16. Can you rank the importance of copyrights protection for your industry:

a. Very significant

b. Significant

c. Slightly significant

d. Insignificant

17. Please rank the following factors in order of importance in shaping the future of your industry (where '1' is most important):

a. Technological Change

b. Global Competition

c. Access to Financing

d. Government Regulation / Policy

e. Access to Skilled Manpower

f. Other (please specify)

18. How has the business of your industry changed in the last one decade? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

19. Are there any available estimates regarding the average fixed cost of setting up a firm in your industry (including costs related to licenses / NOC)? \_\_\_\_\_

20. What is the average annual running cost of a medium-scale firm in your industry (variable costs depending upon the scale or production / employment)? \_\_\_\_\_

21. What is the most significant changes facing your industry nowadays? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

22. What kind of government support does your industry require? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

23. How well can the entities registered in your association compete with foreign entities? \_\_\_\_\_

---

---

24. How much time does it takes on average to initiate business (approximate number of days and departments involved in registration process)? \_\_\_\_\_

---

25. What is the impact of IPO-Pakistan on the operations of your industry? \_\_\_\_\_

---

---

**Thank you for your cooperation!**



## Appendix 2 Data Requirement under ISIC

Division	Group	Classes	Explanation	Type
22	221			
		2211	Publishing of books, brochures and other publications	Core
		2212	Publishing of newspapers, journals and periodicals	Core
		2213	Publishing of music	Core
		2219	Other publishing	Core
	222		Printing and service activities related to printing	Core
		2221	Printing	Core
		2222	Service activities related to printing	Core
	223		Reproduction of recorded media	Core
	322		Manufacture of television and radio transmitters and apparatus for line telephony	Non-Core
	642	6420	Telecommunications	
	722	7221	Software publishing	
	723	7230	Data processing	
	724	7240	Database activities and online distribution of electronic content	
73			Research and development	Non-Core
74			Other business activities	Non-Core
	742	7421	Architectural, engineering and other technical activities	Non-Core
		7422	Technical testing and analysis	Non-Core
	743	7430	Advertising	Non-Core
	749	7494	Photographic activities	Non-Core
92			Recreational, cultural and sporting activities	
	921	9211	Motion picture and video production and distribution	Core
		9212	Motion Picture projection	Core
		9213	Radio and television activities	Core
		9214	Dramatic arts , music and other arts activities	Core
	922	9220	News agency activities	Core
	923	9231	Library, archives, museums and other cultural activities	Core

Source: International Standard Industrial Classification, UN 2002.

# THE ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN PANAMA

---

**PREPARED BY:**  
JORGE CASTILLO MARTÍNEZ  
Consultant

**RESEARCH TEAM:**  
Ana E. Patiño M.  
Arnold Muñoz  
Carlos Vega  
Edwin Cisneros

## Table of Contents

---

<b>Executive Summary</b>	<b>228</b>
<b>1. INTRODUCTION</b>	<b>231</b>
1.1 Conceptual Framework	232
1.1.1 Problem	232
1.1.2 Objectives	232
1.1.2.1 General Objective	232
1.1.2.2 Specific Objectives	232
1.1.3 General Background	232
1.1.4 Justification	233
<b>2. METHODOLOGY OF THE STUDY</b>	<b>234</b>
2.1 Definition and Identification of the Copyright-Based Industries	234
2.1.1 Definition	235
2.1.2 Identification	235
2.1.3 Categorization	236
2.2 Statistical Data Used to Calculate Economic Indicators for the Copyright-Based Industries	239
2.2.1 Contribution of the Copyright-Based Industries to Employment	239
2.2.2 Value Added and its Contribution to the Economy	239
2.2.3 Foreign Trade	240
2.3 Determination of Copyright Factor	241
2.4 Application of the Copyright Factor to the Variables	243
<b>3. COPYRIGHT PROTECTION LEVEL</b>	<b>245</b>
3.1 General Background	245
3.2 The Legal Framework of Copyright in Panama	245
3.3 Concept of Copyright	246
3.4 Types of Works Protected by the Panamanian Legislation	246
3.5 Exclusive Rights	247
3.5.1 Reproduction Right	247
3.5.2 Translation Right	247
3.5.3 Adaptation, Arrangement, and Other Alteration Rights	247
3.5.4 Public Performance Right	248
3.5.5 Broadcasting Right	248
3.5.6 Public Communication Right	248
3.5.7 Distribution Right	248
3.5.8 Rental Right	249
3.5.9 Moral Rights	249
3.6 Limitations to Copyright	249
3.7 Duration of Copyright Protection	250
3.8 Related Rights	250
3.8.1 Performers' Rights	251
3.8.2 Rights of Phonogram Producers	251
3.8.3 Broadcasting Rights	251

3.9	Copyright Markets	251
3.10	Compliance Measures	252
<b>4.</b>	<b>ASSESSMENT OF THE CONTRIBUTION OF THE COPYRIGHT-BASED INDUSTRIES IN PANAMA: 2002–2006</b>	<b>254</b>
4.1	General Performance of the Panamanian Economy	254
4.2	Sectorial Performance of the Panamanian Economy	254
4.3	Contribution of the Copyright-Based Industries to Employment	255
4.3.1	Methodology Used	255
4.3.1.1	Information Sources	255
4.3.1.2	Handling of Information	256
4.3.2	General Aspects of the Panamanian Labor Market	256
4.3.3	Contribution of the Copyright-Based Industries to Employment	258
4.3.3.1	Total Employment	258
4.3.3.2	Core Copyright Industries	263
4.3.3.3	Interdependent Copyright Industries	266
4.3.3.4	Partial Copyright Industries	269
4.3.3.5	Non-Dedicated Support Industries	269
4.3.4	Contribution of the Copyright-Based Industries to the Total Employment of Panama	274
4.3.4.1	According to the Population Status	274
4.3.4.2	According to Industry Category	275
4.4	VALUE ADDED GENERATED BY THE COPYRIGHT-BASED INDUSTRIES	276
4.4.1	Methodology Used	276
4.4.1.1	Definition of the Copyright-Based Industries	276
4.4.1.2	Information Sources	276
4.4.1.3	Limitations of the Information for Estimating the Value Added	277
4.4.1.4	Methodology Utilized to Estimate the Approximated Value Added	277
4.4.2	Value Added Generated by the Copyright-Based Industries	277
4.5	Foreign Trade Generated by the Copyright-Based Industries	280
4.5.1	Methodology Used	280
4.5.1.1	Information Sources	280
4.5.1.2	Handling of Information	281
4.5.2	General Aspects of Foreign Trade in Panama	281
4.5.3	Foreign Trade Generated by the Copyright-Based Industries	281
4.5.3.1	Core Copyright Industries	283
4.5.3.2	Interdependent Copyright Industries	283
4.5.3.3	Partial Copyright Industries	285
4.5.3.4	Non-Dedicated Support Industries	285
4.6	Comparison of Results at an International Level	285
<b>5.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDIES</b>	<b>288</b>
<b>6.</b>	<b>BIBLIOGRAPHY</b>	<b>290</b>
<b>7.</b>	<b>ANNEXES</b>	<b>292</b>

## Tables

---

<b>Table 1:</b>	Participation of the Copyright-based Industries in the Total Employment, according to Industry Category in the Republic of Panama	229
<b>Table 2:</b>	Contribution of the Copyright-based Industries in Panama to the Gross Domestic Product, according to Category. Year : 2002 and 2006	229
<b>Table 3:</b>	Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama: 2002 and 2006	230
<b>Table 4:</b>	Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations	236
<b>Table 5A</b>	Adjustment Factors to the Contributions of the Copyright-based industries in Panama: 2006	242
<b>Table 5B</b>	Adjustment Factors to the Contributions of the Copyright-based Industries in Panama: 2006	242
<b>Table 6:</b>	Adjustment Factors Applied to Measure Value Added in Panama: 2006	244
<b>Table 7:</b>	Types of Works Protected by the Panamanian Legislation	247
<b>Table 8:</b>	Copyright and Scope of Respective Markets	251
<b>Table 9:</b>	Main Macroeconomic Indicators of Panama	254
<b>Table 10:</b>	Population of 15-year-olds and Older in the Republic of Panama, according to Economic Activity Condition	257
<b>Table 11:</b>	Employed Population of 15 years and Older, according to Sector and Economic Activity in the Republic of Panama. Years: 2002 -2006	258
<b>Table 12:</b>	Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees	259
<b>Table 13:</b>	Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees: Year 2006	260
<b>Table 14:</b>	Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category in the Republic of Panama	261
<b>Table 15:</b>	Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama	262
<b>Table 16:</b>	Nominal and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama	264
<b>Table 17:</b>	Nominal and Percentage Value of the Contribution of the Interdependent Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama	267



<b>Table 18:</b>	Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama	270
<b>Table 19:</b>	Nominal and Percentage Value of the Contribution of the Non-dedicated Support Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama	273
<b>Table 20:</b>	Contribution of the Copyright-based Industries in the Economically Active Population in the Republic, according to Population's Condition	275
<b>Table 21:</b>	Participation of the Copyright-based Industries in Total Employment in the Republic of Panama, according to Category of Industry.	276
<b>Table 22:</b>	Contribution of the Copyright-based Industries to the Gross Domestic Product in Panama, according to Category of Industry	278
<b>Table 23:</b>	Value Added of the Core Copyright Industries according to Main Activity	279
<b>Table 24:</b>	Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama	282
<b>Table 25:</b>	Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama	284
<b>Table 26:</b>	Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama	292
<b>Table 27:</b>	Nominal and Adjusted Value According to Copyright Factor of the Contribution of Copyright-based Industries to Total Employment, Value Added and Foreign Trade according to Industry Category in the Republic of Panama	294
<b>Table 28:</b>	Nominal and Adjusted Value according to Copyright Factor of the Copyright-based Industries Contribution to Total Employment, Value Added and Foreign Trade, according to Industry Category in Panama	295

## Figures

---

<b>Figure 1:</b>	Economically Active Population, Employed and Unemployed in Panama	257
<b>Figure 2:</b>	Percentage Participation of the Copyright-based Industries in Panama according to Employment Generation	259
<b>Figure 3:</b>	Percentage Participation of Copyright-based Industries in Panama according to Generated Employment Level	260
<b>Figure 4:</b>	Employment Generated by the Copyright-based Industries in Panama	261
<b>Figure 5:</b>	Employment Generated by Core Copyright Industries in Panama	266
<b>Figure 6:</b>	Employment Generated by Interdependent Copyright Industries in Panama	269
<b>Figure 7:</b>	Employment Generated by Partial Copyright Industries in Panama	272
<b>Figure 8:</b>	Employment Generated by the Non-dedicated Support Industries in Panama	274
<b>Figure 9:</b>	Percentage Valued Added of the Copyright-based Industries	279
<b>Figure 10:</b>	Core Copyright Industries according to Main Activity	280
<b>Figure 11:</b>	Nominal Value of Exports of the Copyright-based Industries in Panama	282
<b>Figure 12:</b>	Nominal Value of Copyright Interdependent Industries Imports in Panama	283
<b>Figure 13:</b>	Percentage Comparison of the Copyright-based Industries Contribution to Value Added Worldwide	286
<b>Figure 14:</b>	Percentage Comparison of the Copyright-based Industries Contribution to Employment Worldwide	287

## Executive Summary

### 1. Level of Protection

Panama has the legal framework and the public institutions to implement the Intellectual Property laws. The Intellectual Property Interdisciplinary Commission was created by means of Law 23 of 1996 in order to integrate the efforts of these institutions.

The laws which have been created since 1994 in all the fields of intellectual property have been applied by the competent authorities. The efforts carried out by the Republic of Panama to strengthen intellectual property rights have improved its image. This fact has promoted economic activities related to intellectual property.

### 2. Study Methodology

The methodology employed in this study is suggested by the World Intellectual Property Organization (WIPO<sup>1</sup>) to measure the contribution of the copyright-based industries to the gross domestic product (GDP) in Panama. The years 2002 and 2006 are taken as reference years, as the available information for these years is consistent.

In the case of Panama, the activities for the four categories proposed by WIPO were considered, and the International Classification of the Industrial Activities and Services (ISIC) was used. The information used in the study corresponds to the 2002 and 2006 Business Directory, elaborated by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. This information was filtered and classified in accordance with the following four categories, proposed by WIPO, within which the types of industries which strictly apply for the case of Panama were included:

- **Core copyright industries:** In this group the following industries are considered: press and publishing; music, theater and opera productions; films and video; radio and television; photography; software and database programs; visual and graphic arts; advertisement services; and copyright collecting societies.
- **Interdependent copyright industries:** Producers of television sets and radio appliances; computers and equipment; photography and cinematography instruments; blank recording material; and paper.
- **Partial copyright industries:** Activities related to apparel, textiles and shoe design; jewelry and coins; handicrafts; household goods, porcelain and glass; tapestry, paper and carpets; toys and games; architecture, engineering and land surveying; and interior design.
- **Non-dedicated support industries:** Activities related to transport in general; telephony and the Internet.

### 3. Contribution of the Copyright-Based Industries to Employment

In 2002 the copyright-based industries generated 30,637 employments, which represented 2.92% of the economically active population (EAP) of 1,049,525 persons. In 2006, this participation rate rose to 3.17%, totaling 40,990 employments, which meant that, in the national economy, 10,363 new employments had been generated in the copyright-based industries.

With regard to the individual contribution of the copyright-based industries, during the latest analyzed year (2006), the core industries generated 19,714 employments, which represented 1.52% of the economically active population, while interdependent industries generated 1.20%, partial industries generated 0.31%, and non-dedicated support industries generated 0.13%. These figures are represented in the following chart:

<sup>1</sup> "The WIPO Guide on Surveying the Economic Contribution of the Copyright Industries", World Intellectual Property Organization, WIPO, Geneva, 2003.

**Table 1: Participation of the Copyright-based Industries in the Total Employment, according to Industry Category in the Republic of Panama**

Year: 2002 and 2006

Indicator	2002	Participation	2006	Participation
Employed Economically Active Population	1,049,525	100	1,294,937	100
Population Employed by Copyright-Based Industries	30,627	2.92	40,990	3.17
Core Copyright Industries	15,867	1.51	19,714	1.52
Interdependent Copyright Industries	9,694	0.92	15,584	1.2
Partial Copyright Industries	3,825	0.36	3,960	0.31
Non-Dedicated Support Industries	1,241	0.12	1,732	0.13

Source: Own Preparation based on data provided by the Home Poll 2002 – 2008 of the General Comptroller’s Office of the Republic.

The results show that the copyright-based industries generated more employment than some other subsectors; for instance, in 2006, the copyright-based industries generated 40,990 employments, while some activities of the primary sector of the Panamanian economy, such as fishing and exploitation of mines and stone pits, jointly generated about 17,500 employments in the same year. Likewise, the copyright-based industries generated more employment than some of the activities of the secondary and tertiary sectors, such as electricity, gas and water supply services and financial intermediation activities, which generated about 35,000 employments in 2006.

The employment generated by the copyright-based industries is comparable to the activities of social and health services – that include private health services and cultural, sport and recreation activities at a private level – which generated 49,200 employments in 2006. Taking into account that Panama showed an unemployment rate of 8.68% in 2006, we may consider that the contribution of the copyright-based industries to employment is relatively low. On the other hand, if we consider just formal employment, the contribution rate of the copyright-based industries would double the above-mentioned rate, as formal employment represents about 50% of the total employment generated in the country.

#### 4. Contribution of the Copyright-Based Industries to the Value Added

The contribution of the copyright-based industries to the GDP in 2002 and 2006 has been measured in thousands of US Dollars at 1996 prices. It is expected that the participation of these industries will increase during the next few years as long as new industries are incorporated into the market. The results are an approximation of the real GDP as a consequence of the level of disaggregation used by the General Office of Statistics and Census of the General Comptroller’s Office to assess the corresponding activities.

**Table 2: Contribution of the Copyright-based Industries in Panama to the Gross Domestic Product, according to Category. Year : 2002 and 2006**

(in thousand dollars of 1996)

Category of Industries	YEARS	
	2002	2006
Total	812,057.30	967,697.10
Core Copyright Industries	708,049.70	823,477.90
Partial Copyright Industries	6,595.60	7,662.70
Non-Dedicated Support Industries	87,762.00	128,156.50
GDP – PANAMA	11,691,100	15,238,600
Percentage contribution to the GDP	6.95	6.35

Source: Own Preparation based on data provided by the General Comptroller’s Office of the Republic.

The copyright-based industries in Panama make a significant contribution to the GDP of, on average, about 6.5%. This represents a positive participation to the economy year after year, since it impacts on employment and on foreign trade. The core copyright industries make the most important contribution of the four categories of copyright industries suggested by WIPO.

## 5. Contribution of the Copyright-Based Industries to Foreign Trade

For many years, the performance of foreign trade in Panama has been linked to the performance of the services sector, in the sense that the sector contributes to a significant percentage if compared with the other two sectors of the economy. From the statistical data selected for this research, we observe that the largest category is that of the interdependent industries. This group contributed 37.1% of the copyright-based industries' imports in 2002 and 34.5% in 2006. In the case of exports, this sector contributed 28.6% in 2002 and 40.1% in 2006. Within the interdependent industries, the activity which generated most of this trade was paper (5149).

The total foreign trade generated (exports + imports) is significant, as, in 2002, a total of US\$ 443,816,625 was traded in this sector. In 2006, this amount rose to US\$ 504,167,164. We also found that net exports in 2002<sup>2</sup> showed a negative balance of US\$ -406,982,491; in 2006, this figure grew to US\$ -462,086,946. This represents an increase of 13.54% between 2002 and 2006.

**Table 3: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama: 2002 and 2006**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
Total	18,417,067	21,040,109	425,399,558	483,127,055
Core Copyright Industries	360,215	458,206	113,757,444	181,663,994
Interdependent Copyright Industries	7,539,607	9,121,838	173,008,924	185,055,234
Partial Copyright Industries	3,331,053	2,788,749	63,778,966	85,218,990
Non-Dedicated Support Industries	6,800	7,683	15,602,744	27,797,597

Source: Own elaboration based on data provided by the General Comptroller's Office of the Republic.

<sup>2</sup>Exports minus imports.

## 1. Introduction

---

In 2007, Panama had 3,339,781 inhabitants, 62.2% of whom were located in urban areas, and 37.8% in rural areas. These characteristics are important in order to determine the cultural pattern of the country, taking into account the integration and globalization process in society. Panama is geographically part of Central America, belongs culturally to the Caribbean region, is historically part of South America –between 1821 and 1903 it was part of Colombia – and is commercially linked to the United States.

Among its specificities, the Panamanian economy has a limited primary sector, as in 2007 it only contributed 9.4% to the GDP. On the other hand, the secondary sector generated 18.3%, and it is considered that it had a late development after the Second World War. Historically, the tertiary sector has been the most important in our economy, determining the accumulation dynamic of the economic system. In the same year, it generated 72% of the GDP. The majority of the cultural activities of the country are within this sector. The tertiary sector is characterized by the existence of the Panama Canal, the Colón Free Trade Zone, the banking center and a complex port and communication system, which is sustained by these main activities. The existence of ports has been so important in our economy that a prominent historian has defined Panama as a port economy. These characteristics related to transportation generate not only an open economy but also a strong cultural penetration which, by employing this entire infrastructure, provides our consumer markets with contraband trade. We are not asserting that we are a contraband trade economy, but such contraband trade is a practice which has been carried out in our country since colonial times, in our role as a transit route.

Given the cultural characteristics of the economy, measuring the contribution of the copyright industries is a complex issue due to the importance of the informal sector, which, like money-laundering practices, is not reflected in the national accounts. The copyright-based industries involve activities that are developed in accordance with the expression of original literary and artistic ideas which are subject to copyright and which constitute a sector of economic activity worldwide, in addition to the traditional sectors, which are necessary for the development of the country.

In Panamanian society, trade has been a very important activity since pre-Columbian times. There is archeological evidence of the commercial exchange among indigenous populations prior to the arrival of the Spaniards and, with them, the development of Portobelo fairs. Later on, with the development of capitalism, the main economic activities continued to be related to trade.

In parallel to the trade that was regulated by the Spaniards, contraband trade existed. It is asserted that the main traders that supported the Independence of Panama from Spain in 1821 accumulated their fortunes from the practice of illegal trade. From this point onwards, contraband trade and piracy developed almost in a public way and without much moral questioning by the Panamanian society. The fact of obtaining something by smuggling has been seen as a purchaser's ability more than as an illegal act, or as immoral.

The importance of the copyright industries can be approached from two points of view: the cultural and the economic. The first is centered on the promotion and maintenance of cultural diversity and on securing democratic access to culture. From the economic perspective, these industries add economic and social value to nations and individuals; consequently, they constitute a source of knowledge which contributes to employment generation and prosperity.

The above-mentioned facts allow the consideration of creativity as a factor in boosting the innovation of production and trade processes and enable its participation in the economy in terms of employment generation and contribution to the gross domestic product (GDP). GDP is, undoubtedly, the most important macroeconomic measure to assess the productive capacity of the economy of any country, as it represents the total monetary value of the production of goods and services of a country during a year. Nevertheless, there are sectors or productive units whose contributions are not registered as official figures, such as unpaid domestic work, illegal economic activities, the negative value caused by the exploitation of environmental goods and services.

As a consequence, the creative sector has acquired great economic importance to Panama for three reasons: its contribution to the national wealth creation; its contribution to the generation of employment; and the competitive advantages it gives to the country in terms of its commercial interactions with the rest of the



world. This is the reason why this study was carried out. The study allowed the qualitative and quantitative measurement of the economic and social impact generated by the development of copyright-based economic activities.

In accordance with the terms of reference and with guidance from the World Intellectual Property Organization (WIPO), this study was divided into four parts: the first part comprises the introduction and presentation of the employed methodology; the second part includes a description of the copyright-based industries in Panama and the level of protection of copyright, as well as the industries protected by copyright; the third part analyzes the economic contribution of the copyright-based industries in Panama from the point of view of the indicators selected in the study (value added, employment generation, and foreign trade); and, finally, the fourth part presents the conclusions of the study.

We expect the study to be considered as an input to the development of subsequent studies where some of the issues can be deepened, such as the weighting factors to be applied to some categories of copyright-based industries, and where the existing information systems are improved in order to allow the improvement of the required analysis. This shall allow the improvement of the functioning of these industries, as it provides evidence on the economic function performed by copyright protection. It will also make it easier to identify and elaborate adequate policies to boost the creative industries and activities related to copyright in Panama.

## 1.1 Conceptual Framework

### 1.1.1 Problem

The bibliographical search carried out found that in Panama there is no economic evaluation regarding the importance of the copyright-based industries and activities protected by related rights, in spite of the existence of laws which regulate the operation of these industries. As a result, there is a lack of monitoring of the development of this activity and a lack of awareness of their economic contribution to the gross domestic product.

### 1.1.2 Objectives

#### 1.1.2.1 General Objective

Estimate on a quantitative basis the economic contribution of copyright-based industries, and activities protected by related rights, in Panama.

#### 1.1.2.2 Specific Objectives

This research represents an economic analysis applied to the copyright-based industries. The main contributions of this study can be considered in terms of the following specific objectives:

- To define and select the categories of copyright-based industries.
- To describe the level of protection granted by copyright in Panama.
- To determine the contribution of the copyright-based industries to the GDP of Panama.
- To evaluate the contribution of the copyright-based industries to employment generation in the Panamanian economy.
- To assess the balance of foreign trade of goods of the copyright-based industries.

These objectives, in turn, are converted into structural economic indicators which we consider as most appropriate and which can furnish more information to determine the development, importance and weight of the activities related to the copyright-based industries in the Panamanian economy.

### 1.1.3 General Background

In 2002, the World Intellectual Property Organization (WIPO), in collaboration with the government of Finland, put together a work group comprising well-known economists specializing in the preparation of studies on industries whose activities are protected by copyright. This group, comprising specialists from

Australia, Brazil, Egypt, Finland, the Netherlands, Spain, and the United States of America, established the basis of the WIPO guide, which helps countries to measure the economic contribution of copyright-based industries and to assess the effect of copyright on their economy.

Since 2002, a number of countries, including Colombia, Mexico, Brazil, Singapore, Canada, Hungary, and Australia, among others, have carried out and finished their studies. Based on the conclusions of these studies, it can be seen that the sector is very dynamic; likewise, it has been found that its direct and indirect contribution to the economy is very significant and has many favorable effects which require clear and stable operating conditions, as well as conditions which help its development.

#### **1.1.4 Justification**

The above-mentioned studies have shown that activities related to copyright make a significant contribution to GDP, employ a relatively high number of people, and energize the foreign trade of goods. For that reason, there are high expectations regarding the economic importance of these industries in a specific country. Based on the above-mentioned facts, we attempted to identify the economic value of the contribution made by the copyright-based industries and activities protected by related rights in Panama, and discovered that this issue has not been analyzed in our country. As a consequence, using the recommendations and under the auspices of WIPO, we started this research.

In Panama, the impact generated by the copyright-based industries in terms of economic variables such as value added, employment level and foreign trade was unknown prior to this study; that is why this research will help introduce the quantification of economic contribution of the copyright sector as an essential indicator of the importance of copyright-based industries for the national economy. Although in Panama there is a body of laws which secure the protection of these rights, which are hereinafter described at Chapter III, their application is rather limited.

## 2. Methodology of the Study

---

The WIPO guide sets out the ways of measuring the economic impact of the copyright-based industries, which include:

- Measurement based on previous studies carried out by the public or private sectors (non-existent in Panama);
- Measurement based on previous censuses;
- Measurement based on input-output analysis; and
- Measurement based on statistics of the national account system (foreign trade).

The input-output tables detail both the input materials utilized and the products obtained by each industry. However, these tables cannot be used in the case of Panama due to the non-existence of conclusive data. Therefore, two options remained, namely:

- To carry out an analysis based on an informed assessment of the sectors of the whole economy which may be considered as representative of the copyright-based industries.
- To carry out studies for this special purpose, using a valid statistical sample, which requires more time and investment.

In this study we will employ the first option, which is the result of census and statistical data coming from the national accounts system provided by the General Comptroller's Office of the Republic, which is the official entity in charge of statistical information in Panama. It is important to highlight that the analysis of the level of participation of the copyright-based industries in the Panamanian economy was primarily focused on the employment generated by copyright-based industries. This is due to the fact that the statistical information available from the official sources is duly disaggregated for the employment variable; this is not the case for information relating to the contribution made by copyright-based industries to value added and to foreign trade.

### 2.1 Definition and Identification of the Copyright-Based Industries

In accordance with the methodology developed by WIPO<sup>3</sup>, intellectual property rights as a group, including patents, shall not be taken into account. Copyrights shall only be taken into account as part of the operation system of a country's different economic agents. The more the copyrights are complied with, the more the transactional costs diminish and the incentives to develop further and improve economic activities increase.

According to WIPO, cultural industries are defined as those involving products with a significant cultural content which are reproduced on an industrial scale. In general, there is an understanding to apply this term to those industries which combine creation, production and trade of intangible and cultural contents. Such content is normally copyright-protected and may take the form of goods or services.<sup>4</sup>

The copyright-protected activities in most of the countries already studied are very similar to those industries protected in Panama, and include:

- **Literary works:** Books in all their varieties and forms, such as novels, poems, educational books, etc. This also includes magazines, newspapers, and other printed works, such as translations.
- **Musical works:** Songs, theatrical productions, operas.
- **Artistic works:** Includes two-dimensional (paintings, drawings, lithographs, etc.) and three-dimensional works (sculptures of various materials).
- **Photographic works:** Includes all kinds of photographs, from landscapes to portraits, in order to illustrate newspapers and magazines.
- **Television and cinematography:** Includes documentaries, movies, television programs, cartoons, etc., regardless of their duration and format.
- **Technical drawings:** Includes architectonic maps, maps of facilities, cartographic maps, instructions, etc.

---

<sup>3</sup> "The WIPO Guide on Surveying the Economic Contribution of the Copyright Industries", World Intellectual Property Organization, WIPO, Geneva, 2003.

<sup>4</sup> Op. Cit Page 13.

### 2.1.1 Definition

In Panama, copyright has been defined as “the recognition granted by the State in favor of any creator of literary and artistic works by virtue of which it grants protection so that the author enjoys exclusive personal and patrimonial prerogatives and rights. The main objective of this protection is to grant incentives to creation and thus continue promoting the production of them and, at the same time, the persons’ creativity”.

### 2.1.2 Identification

Based on international methodological practices, and following the WIPO guide for measuring the contribution of the copyright-based industries, the industries to be considered shall be grouped as follows:

- Core industries
- Interdependent industries
- Partial industries
- Non-dedicated support industries

These characteristics will be considered in accordance with the statistical classification described below:

- **Core industries:** Industries engaged in the creation, production, manufacturing, broadcasting, communication, exhibition, and distribution of copyright-protected material.<sup>5</sup> The following industries are included in this category:
  - **Press and literature:** Authors, writers, translators, newspapers, news agencies and similar agencies, magazines, publication of books, cards and maps, directories and other published material, printing of books, magazines, and newspapers, advertising, wholesale and retail of press and literature, and bookshops;
  - **Music, theater production, operas:** Composers, arrangers, choreographers, directors, artists and personnel, printing and publication of music, production and manufacture of recorded music, wholesale and retail of recorded music (sale and rental), creation of artistic and literary works, performance of artistic and literary works, operation of ticket sale agencies and related services;
  - **Films and videos:** Writers, directors, actors, authors and composers, production and distribution of films and videos, film exhibition, video sale and rental and related services;
  - **Radio and television:** National radio and television broadcasting enterprises, other broadcasting enterprises, independent producers, cable television (systems and channels), satellite television and related services;
  - **Photography:** Studios and commercial photography and photographic agencies;
  - **Graphic and Visual Arts:** Artists, art galleries, picture framing and graphic design;
  - **Software and databases**
  - **Advertising services:** Includes only the agencies and acquisition services (advertising costs are not included);
  - **Copyright Collective Management Societies** (without including the total billing).
  - **Interdependent Industries:** Industries engaged in the production, manufacture and sale of equipment which facilitates the creation, production, and use of copyright-protected material.<sup>6</sup> We can include here: television sets and radio appliances; VCRs; CD players; DVD players; tape recorders; video games appliances and other similar devices; computers and equipment; musical instruments; photographic instruments and cinematography; photocopiers and equipment; photographic and cinematographic instruments; copying machines and paper.
  - **Partial industries<sup>7</sup>:** Industries in which some of the activities are related to copyright-protected works, which may involve the creation, production, manufacture, operation, broadcasting, communication, exhibition, distribution, and sale of copyright-protected works. They include: garments, textiles, and shoes; jewelry; other kinds of art; furniture design; copyright collection related to music in nightclubs and discotheques; design of household goods; porcelain; glassware; copyright collection related to music in bars and restaurants; tapestry; design of carpets and rugs; design of toys and games; architecture and engineering; opinion polls’ services; interior design; and museums.

<sup>5</sup>Op. Cit Page 8.

<sup>6</sup>Op. Cit Page 8.

<sup>7</sup>Ibidem.

- **Non-dedicated support industries<sup>8</sup>:** Industries with a portion of the activities are related to facilitating the broadcasting, distribution, or sale of copyright-protected works. Those industries are: wholesale and retail; transport in general; and telephony and the Internet.

This study considered the activities related to the four categories proposed by WIPO and used the International Standard Industrial Classification (ISIC).

The information used was based on the 2002 and 2006 Business Directory provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. This information was filtered and classified in accordance with the four above-mentioned categories, within which the types of industries which strictly apply to the case of Panama were included.

### 2.1.3 Categorization

The codes of the International Standard Industrial Classification (ISIC) of the United Nations which correspond to the copyright-based industries allow us to classify the enterprises within each industry in Panama, which will enable the analysis of the indicators to carry out this research. The chart below provides the classification of enterprises in accordance with the industry they belong to and the economic activity they are engaged in, classified by the ISIC code. It is important to highlight that those enterprises that do not appear are not listed in the 2002 and 2006 Business Directory:

**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations**

Economic Activity	ISIC Code Rev.3.1.	Description
<b>1. Core Copyright Industries:</b>		
<i>a. Press and publishing:</i>		
Authors, writers, translators	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	7499	Class: 7499 – Other commercial activities not elsewhere classified (n.e.c.) (translation and interpretation cases)
Newspapers	2212	Class: 2212 – Publication of newspapers, magazines and periodic publications.
News agencies and current events news agencies	9220	Class: 9220 – Activities of news agencies.
Magazines / periodic publications	2212	Class: 2212 – Publication of newspapers, magazines and periodic publications.
Editions of books	2211	Class: 2211 – Publication of books, booklets and other publications.
Cards, maps, guides and other printed materials	2219	Class: 2219 – Other publications.
Pre-printed publications, printing and postprinting of books, magazines, newspapers, advertisement materials	2221	Class: 2221 – Printing.
	2222	Class: 2222 – Activities regarding printing-related services.
Libraries	9231	Class: 9231 – Library activities and archive.
<i>b. Music, theater production, opera:</i>		
Composers, songwriters, arrangers, choreographers, writers, directors, artists, interpreters or performers and other personnel	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	9219	Class: 9219 – Other entertainment activities n.e.c.
	9249	Class: 9249 – Other entertaining activities.
Printing and publication of music	2213	Class: 2213 – Publication of music.
Production / manufacturing of recorded music	2230	Class: 2230 – Reproduction of sound recordings.

<sup>8</sup>Ibidem.



**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations (continued)**

Artistic and literary creation and interpretation	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Shows and connected agencies (contract agencies, ticket sale agencies, etc.)	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
<i>c. Cinematographic films and videos:</i>		
Writers, directors, actors	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Production and distribution of films and videos	9211	Class: 9211 – Production and distribution of films and videos.
Exhibition of films	9212	Class: 9212 – Film projection.
Sale and rental of videotapes	9211	Class: 9211 – Production and distribution of films and videos.
Related Services	2230	Class: 2230 – Reproduction of sound recordings.
<i>d. Radio and television:</i>		
National radio and television broadcasting enterprises	9213	Class: 9213 – Radio and television activities.
Other radio and television broadcasts	9213	Class: 9213 – Radio and television activities.
Independent producers	7499	Class: 7499 – Other commercial activities.
Cable television (systems and channels)	6420	Class: 6420 – Telecommunications.
Satellite television	6420	Class: 6420 – Telecommunications.
Related Services	9213	Class: 9213 – Radio and television activities.
<i>e. Photography:</i>		
Studios and commercial photography	7494	Class: 7494 – Photographic activities.
Photography agencies and libraries	2222	Class: 2222 – Activities of services related to printing.
	7499	Class: 7499 – Other commercial activities.
	9231	Class: 9231 – Library activities and archive.
<i>f. Software and Databases:</i>		
Preparation and publication of databases	7240	Class: 7240 – Activities of databases and online distribution of electronic contents
	7230	Class: 7230 – Data preparation.
<i>g. Visual and Graphic Arts:</i>		
Artists	9214	Activities of authors, music composers and other independent artists n.e.c.
Art galleries and other wholesale and retail sale business	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Picture framing and other related services	7494	Class: 7494 – Photographic activities.
Graphic design	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	7499	Class: 7499 – Other commercial activities not elsewhere classified (n.e.c.) (translation and interpretation cases).
<i>h. Advertising Services:</i>		
Advertising agency, acquisition service	7430	Class: 7430 – Advertising.
<i>i. Copyright Collecting Societies:</i>		
Copyright Collecting Societies	9112	Class: 9112 – Activities of professional organizations

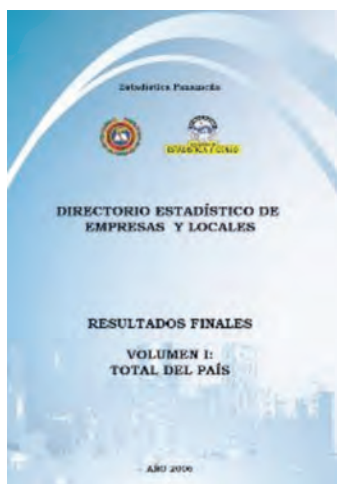


**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations (continued)**

<b>2. Interdependent Copyright Industries:</b>		
Television sets, radios, magnetoscopes, CD recorders, DVD recorders, cassette recorders, electronic games equipment and other similar equipment	3230	Class: 3230 – Manufacture of television sets and audio receivers, sound or video recorders or recorders and related items.
Computers and equipment	7123	Class: 7123 – Office machines and equipment rental (including computers).
Photographic and cinematographic instruments	3320	Class: 3320 – Manufacture of optical instruments and photographic equipment.
	7129	Class: 7129 – Other machines and equipment rental n.e.c.
Blank recording material	2429	Class: 2429 – Manufacture of other products.
Paper	2101	Class: 2101 – Manufacture of paper pulp, paper and cardboard.
<b>3. Partial Copyright Industries:</b>		
Garments, textiles and shoes	1721	Class: 1721 – Manufacture of items made with textiles.
Jewelry and coins	3691	Class: 3691 – Manufacture of jewelry and related items.
Other handicrafts	9199	Class: 9199 – Activities of other associations n.e.c.
Household goods, porcelain and glass items	2610	Class: 2610 – Manufacture of glass and glass products.
	2029	Class: 2029 – Manufacture of other wooden products.
	2899	Class: 2899 – Manufacture of other metal products n.e.c.
Tapestry paper and carpets	2109	Class: 2109 – Manufacture of other paper articles and cardboard.
Toys and games	3694	Class: 3694 – Manufacture of toys and games.
Architecture, engineering, land surveying	7421	Class: 7421 – Activities of architecture and engineering and related services of technical assessment.
Interior design	7499	Class: 7499 – Other commercial activities.
Museums	9232	Class 9232 – Activities of museums and preservation of historical sites and buildings.
<b>4. Non-Dedicated Support Industries:</b>		
Transportation in general	630	Class: 630 – Transport supporting and auxiliary activities.
		6301 – Handling of cargo.
		6302 – Storage and deposits.
		6303 – Other transport supporting activities.
		6309 – Activities of other transport agencies.
		6411 – National mailing activities.
Telephony and the Internet	6420	Class: Telecommunications.
		7240

## 2.2 Statistical Data Used to Calculate Economic Indicators for the Copyright-Based Industries

### 2.2.1 Contribution of the Copyright-Based Industries to Employment



The analysis of the employment generated by the copyright-based industries in Chapter 4 of this study was carried out based on the latest two databases of the Statistical Directory of Businesses and Premises<sup>9</sup>, provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic, corresponding to 2002 and 2006.

In addition, a comparative analysis of the employment generated in this sector was carried out in relation to the employment generated in other traditional sectors of the Panamanian economy, taking into consideration the definitions and concepts provided by the Continuous Households Survey of the General Comptroller's Office of the Republic<sup>10</sup> in order to determine the Panamanian population's activity condition. The population's classification according to activity condition allows a distinction to be made between the two basic groups that provide information on the participation of their different components in the economy of the country: economically active population and non-economically active population.

### 2.2.2 Value Added and its Contribution to the Economy

The following indicators measure the contribution of the different production factors to the economy. The following definitions are taken from the National Accounts of the Republic of Panama:

- **Production value at current prices:** The value of the production or other magnitude of national accounts, in general terms, based on amounts corresponding to the year under study, valued at the price of the same year of compilation. In terms of services, it corresponds to the nominal value of the variable.
- **Production value at constant prices:** The value of the production or other magnitude of national accounts, in general terms, based on amounts corresponding to the year under study, valued at the price of only one year of reference or base year. In terms of services, it corresponds to the nominal value deflated with a price index corresponding or associable to the variable.

<sup>9</sup>The General Comptroller's Office of the Republic of Panama through the General Office of Statistics and Census executes the National Statistical program developing the updating of the Business Directory and Premises at a national level. The Directory offers data and information on enterprises and premises existing in the Republic of Panama, with reference to their economic, general and organizational characteristics, according to their economic activity. Such data correspond to the number of premises, employees, remunerations paid and total income. The results of the last updating of the Directory of Businesses and Premises of each one of the economic activities correspond to 2006. The results are presented according to geographic localization area, level of Category, Division, Group and Class of economic activities in accordance with the International Standard Industrial Classification (ISIC) of all economic activities (Revision 3) and the Codification of the Political Division of the Republic of Panama of 2005. The coverage of the Directory excludes institutions and enterprises of the public sector, the primary sector, and the indigenous districts, as well as some areas of difficult access. The updating of this information is a responsibility of the administrative unit of the Statistical Directory of Enterprises and Premises, which provides information to be used by consultants or private investors to carry out several studies and researches and by the government to take decisions.

<sup>10</sup>General Comptroller's Office of the Republic, Continuous Households Survey: Labor Statistics, Volume 1, March 2008.

- **Gross Value Added or Gross Domestic Product (GDP):** The additional value created by the production process. It consists of the production value minus the intermediate consumption value.

As we can observe, the gross domestic product represents the final result of the productive activity of the resident production units. In Panama, it is calculated from the following methodologies:

- The sum of the gross value added of all the resident production units (institutional and industrial) plus the part of taxes, minus the subventions, divided into the products which are not included in the valuation of the production.
- The sum of the final utilizations of goods and services (all uses, except intermediate consumption), measured at buyer prices, minus the value of the imports of goods and services.
- The sum of the primary incomes distributed into the resident production units. The net domestic product (NDP) is obtained by subtracting the consumption of fixed capital from the GDP.

### 2.2.3 Foreign Trade



We used the volume of exports and imports from the 2002 and 2006 Foreign Trade Yearbook of the General Office of Statistics and Census of the General Comptroller's Office of the Republic of Panama. This yearbook shows statistical information relating to exports and imports, containing detailed annual figures, tax section, way and place of load, destination country and type of merchandise. Merchandise imported and exported by means of the Preferential and Free Trade Agreements is also included.

In order to use the information correctly, only those figures which coincided with the ISIC that each item identifies in accordance with the categories requested by the research on copyright in Panama were used.

The foreign trade balance is an important item, mainly in open market economies such as our economy, to determine the GDP on the side of expenses. For that reason, the study aimed to measure the contribution of foreign trade to the gross domestic product. For this purpose, we will work with the following variables, defined by the General Comptroller's Office of the Republic:

- **Export of goods:** Comprises all national or nationalized goods, new or used, which, for good or valuable consideration, definitely go out from the economic territory of the country to the rest of the world.
- **Export of services:** Comprises all services, transportation, insurance and other services rendered by resident units to non-resident units.
- **Export of goods and services:** Includes all goods ownership transferences from resident people of a country to non-resident people, and services provided by resident producers of a country to non-resident people.
- **Import of goods and services:** Includes all goods ownership transferences and services from non-resident people of a country to resident people, and services provided by non-resident producers to resident people of a country.

### 2.3 Determination of Copyright Factor

An adjustment (copyright factor) to the data obtained from the national statistics has to be made to calculate the contribution of the copyright-based industries in order not to overestimate the contribution of the partial and non-dedicated support industries. Such adjustment may have a value between 0 and 1, if considered as a proportion, or between 0 and 100, if considered as a percentage.

The amount generated by the copyright-based industries can be obtained from the official institutions in Panama. However, given that the contribution to the GDP of each industry category depends on each category's position in the value chain, it is necessary to determine, in an approximate way, the contribution of the copyright-based industries; otherwise, the contribution of these industries to the GDP may be overestimated. For that reason, it is necessary to establish weighting factors which allow the specific contribution of the copyright-based industries to the GDP to be measured.

In accordance with the suggested methodology (WIPO 2003), the copyright-based industries may be classified as core industries, interdependent industries, partial industries, and non-dedicated support industries.

By analyzing the activities carried out by the industries in each group, the team reached the conclusion that the core copyright industries and the interdependent copyright industries do not require an adjustment factor when measuring their contribution to value added, employment, or foreign trade, as it was considered that their activities are 100% related to copyright, because they produce creative goods and works and other materials which must be directly protected.

However, the activities of the partial copyright industries and the non-dedicated support industries may not be considered with a 100% copyright factor when determining their contribution to value added, employment, or foreign trade, as it was considered that a significant part of the goods and services produced by these categories of industries is not copyright-related. Therefore, they require an adjustment (copyright factor) when measuring their contribution to each of the three indicators of the study.

Taking into account that an estimation of the copyright factor must be carried out for each of the categories into which the type of activity per industry is classified, and that such estimation requires a specific methodology beyond the scope of this study (lack of time and resources), the team considered that it would be convenient to use the adjustment factors used by the Colombian study. In the said study, the adjustment factors applied by the Hungarian study are utilized, specifically for the industries classified as partial industries, while our own weighting factors of copyright were elaborated for the activities of the non-dedicated support industries.

In this study, the research team decided to utilize the weighting factors of the Colombian study, taking into consideration the economic characteristics of Colombia, which are similar to the Panamanian economic characteristics in a number of ways. These characteristics include the fact that the services sector is the strongest sector of the economy; that the agroindustrial sector's contribution to the GDP has fallen during recent years; that GDP has grown steadily since 2003; and that the construction subsector has strengthened during the same period (see annex).

Table 5.A shows the weighting factors of the core copyright industries and the interdependent copyright industries, for which the research team considered the methodology suggested by WIPO 2003, which establishes a 100% weighting to the activities of these industries, as they are industries whose activities must be totally protected by copyright.

Table 5.B presents the weighting factors used to adjust the figures of the contributions made by the activities carried out by the partial copyright industries and the non-dedicated support industries to the three indicators employed in this study. As mentioned before, in order to adjust these weightings, factors applied by the Colombian study were used with some own adjustments in terms of specific characteristics of the value chain of the sub-categories of the Panamanian economy.

**Table 5A: Adjustment Factors to the Contributions of the Copyright-based industries in Panama: 2006**

Total	Factor
<b>1. Core Copyright Industries</b>	<b>1.00</b>
1.1. Press and publishing	1.00
1.2. Music, theater production, opera	1.00
1.3. Cinematographic films and videos	1.00
1.4. Radio and television	1.00
1.5. Photography	1.00
1.6. Software and databases	1.00
1.7. Visual and graphic arts	1.00
1.8. Advertising services	1.00
1.9. Copyright collecting societies	1.00
<b>2. Interdependent Copyright Industries</b>	<b>1.00</b>
2.1. Television sets, radios, players and similar equipment	1.00
2.2. Computers and equipment	1.00
2.3. Musical instruments	1.00
2.4. Photographic and cinematographic instruments	1.00
2.6. Blank recording material	1.00
2.6. Paper	1.00

Source: Own preparation based on the research team's assessment.

**Table 5B: Adjustment Factors to the Contributions of the Copyright-based Industries in Panama: 2006**

Total	Factor
<b>3. Partial Copyright Industries</b>	<b>0.22</b>
3.1 Garments, textiles and shoes	0.25
3.2 Jewelry and coins	0.30
3.3 Other handicrafts	0.04
3.4 Furniture	0.05
3.5 Household goods, porcelain and glass items	0.05
3.6 Tapestry paper and carpets	0.02
3.7 Toys and games	0.40
3.8 Architecture, engineering and land surveying	0.30
3.10 Interior design	0.10
3.11 Museums	0.50
<b>4. Non-dedicated Support Industries</b>	<b>0.05</b>
4.1 Wholesale and retail trade in general	0.04
4.2 Transportation in general	0.05
4.3 Telephony and the Internet	0.05

Source: Own preparation based on the research team's assessment.

This is the case for the garments, textiles and shoes category, the weighting of which is 0.25 rather than 0.05, which was utilized by the Colombian study. This is because, in Panama, the production at textile level mainly comprises branded goods. This means that the employed technology is, in many cases, the technology recommended by the industry which owns the brand. This also includes the raw materials used to manufacture the product.

An analysis of twenty-four garment factories duly registered prior to 2009 was carried out; of these, one is in the process of closing and seven produce tailor-made clothes and do not use a brand. Of the remaining



sixteen which are garment factories, seven manufacture several well-known brands, which are advertised in the media, and the other nine manufacture several designs of lesser-known brands.

Furthermore, the designs manufactured by the indigenous population – the value of which is better quoted on the textile market than the average, although the production volume is low – are protected by Law 20 of 2000, which provides a special copyright regime for the indigenous people's collective rights, in order to protect and defend their cultural identity and their traditional knowledge; other similar provisions are also set forth. These facts reaffirm this study's weighting of 0.25 for the production of garments, textiles and shoes.

In connection with other handicrafts, in Panama, the existing way of organization of these industries is not duly developed; the research team was cautious by assigning a weighting of 0.04 instead of the 0.40 assigned by the Colombian study.

In Panama, architecture, engineering and land surveying have developed strongly in relation to the construction sector. In accordance with law, 10% of the construction maps and 1% of the design of the work is copyright-protected. In addition, raw materials, labor force and materials utilized are mostly branded or quality products, which implies great content of copyright, as international standards are followed (ISO 9000 and 12000) in the employment of these products.

In addition, we carried out a consultation with prominent Panamanian architects, who pointed out that the finishings of a construction represent about 40% of the value of such construction. A finishing implies the setting up of tiles, bathrooms, windows, doors, lamps, and false ceilings, among other products. All these products are sold by brands and there are even specialized stores selling these products and promoting brands and countries of origin.

If maps and designs represent 11%, only another 19% would be needed to justify the assignment of 30% used to measure the contribution made by architecture, engineering and land surveying to the value added. If we also take into account that the construction is concentrated in the rural region and that houses, most of them luxurious houses, have an average value of US\$ 80,000, we consider that copyright is undoubtedly important in the construction industry. For these reasons, the research team assigned a weighting of 0.30 to the copyright adjustment factor for this activity, unlike the weighting of 0.10 assigned by the Colombian study.

## 2.4 Application of the Copyright Factor to the Variables

Once the weighting factors to be utilized to measure the contributions made by the partial copyright industries and the non-dedicated support industries had been defined, they were applied to the statistical information obtained from the official entities for each of the activities carried out by the copyright-based industries in relation to each indicator (value added, employment level and foreign trade) considered in this study; this allowed a better approximation of the contribution of the copyright-based industries.

In the case of employment, it was possible to fully apply the factors, as the available statistical data from the official source was sufficiently disaggregated. However, to measure the contribution of the copyright-based industries to the value added, they were only adjusted for those activities with available statistical evidence, which are shown in Table 6, marked with an asterisk. Finally, in the case of foreign trade, the factors were also applied for those activities with statistical evidence (see Table 27 in the Annexes); the information varied for each of the variables (imports and exports).



**Table 6: Adjustment Factors Applied to Measure Value Added in Panama: 2006**

Total	Factor
<b>3. Partial Copyright Industries</b>	<b>0.22</b>
3.1 Garments, textiles and shoes	0.25
3.2 Jewelry and coins	0.30
3.3 Other handicrafts	0.04
3.4 Furniture	0.05
3.5 Household goods, porcelain and glass items *	0.05
3.6 Tapestry paper and carpets	0.02
3.7 Toys and games	0.40
3.8 Architecture, engineering and land surveying *	0.30
3.10 Interior design *	0.10
3.11 Museums	0.50
<b>4. Non-Dedicated Support Industries</b>	<b>0.05</b>
4.1 Wholesale and retail trade in general *	0.04
4.2 Transportation in general *	0.05
4.3 Telephony and the Internet *	0.05

(\*): Refers to activities where there is statistical evidence.

Source: Own preparation based on the research team's assessment.

## 3. Copyright Protection Level

---

### 3.1 General Background

Law 15 of August 8<sup>th</sup>, 1994, and Decree 261 of October 1995 marked the beginning of a new age for copyright in Panama. Although some general provisions had been in place, in Book IV Title V of the Administrative Code, since 1917, the content of these provisions was taken from earlier legislation adopted in 1826 and was therefore outdated.

Before the adoption of legislation in the field of copyright in Panama, there had been no culture of respect towards works created by the human intellect in general. Moreover, the production contents of the cultural industries were not clearly identified and an inventory of the different markets related to copyright and related rights did not exist.

Once the law was created, the State started to comply with the commitment undertaken through the ratification of a series of international agreements, recognizing, for instance, the mandate set forth by article 27.2 of the Universal Declaration of Human Rights, which provides that human beings have the right to have not only their moral rights but also their patrimonial rights protected, meaning the rights of authors of certain works.

This protection, due to its importance, goes beyond frontiers and is recognized by the political constitutions<sup>11</sup> of many countries and broadened by the national regulations which acknowledge the international agreements and treaties on the subject, such as the Bern Convention, the Rome Convention, the Geneva Convention on Phonograms, the Brussels Convention on Satellites, Annex I C of the WTO Treaty (Trade-related Aspects of Intellectual Property Rights Agreement, by means of which copyright is added to the international commercial law). For this reason, our country is committed to creating rules which globally deal with the copyright subject, including civil, procedural, criminal, and administrative rules which secure effective copyright protection and compliance with the ratified agreements.

### 3.2 The Legal Framework of Copyright in Panama

At the international level, the copyright system contains a wide variety of rights which have constituted the minimum conventional base and which are transposed in the relevant national legislations. The analysis of different organizations in charge of compliance with copyright protection shows that several institutions have competencies to fight against piracy and to protect the industry at both national and international levels. Panama has subscribed to several international agreements related to copyright and related rights, such as:

- Universal Copyright Convention, Geneva, 1952, ratified by Panama by means of Law 35 of January 31<sup>st</sup>, 1962;
- Bern Convention for the Protection of Literary and Artistic Works, 1971, ratified by Panama by means of Law No. 3 of January 3<sup>rd</sup>, 1996;
- Universal Copyright Convention, as revised at Paris, 1971, ratified by Panama by means of Law 8 of October 24<sup>th</sup>, 1974;
- International Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms, Geneva, 1971, ratified by Panama by means of Law 5 of November 8<sup>th</sup>, 1973;
- Treaty of the World Trade Organization, ratified by Panama by means of Law 23 of July 15<sup>th</sup>, 1997;
- Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, Rome, 1961, ratified by Panama by means of Law 4 of November 9<sup>th</sup>, 1982;
- Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (Brussels, 1974), ratified by Panama by means of Law 6 of November 9<sup>th</sup>, 1982;
- Washington Convention on Copyright, 1946, ratified by Panama by means of Law No. 5 of December 30<sup>th</sup>, 1982;

---

<sup>11</sup>In the case of Panama, article 53 of the Political Constitution provides that any author, artist, or inventor enjoys the exclusive ownership of their work or invention during the time and manner set forth by the law.

- WIPO Copyright Treaty, ratified by Panama by means of Law 92 of December 15<sup>th</sup>, 1998; and
- WIPO Performances and Phonograms Treaty, ratified by Panama by means of Law 93 of December 15<sup>th</sup>, 1998.<sup>12</sup>

At national level, our country adopted Law No. 15 of August 8<sup>th</sup>, 1994, which approved the Copyright and Related Rights law. The regulation of this law was established in Decree No. 261 of October 3<sup>rd</sup>, 1995. The two instruments comprise the legislation in force and the law that applies in the field of copyright and related rights. Rules relating to compliance with copyright and defense of competence are set forth in Law 29 of January 1<sup>st</sup>, 1996, which provides for civil actions under this legislation. In addition, the Criminal Code provides criminal sanctions on intellectual property and the Judicial Code regulates both civil and criminal procedures.

### 3.3 Concept of Copyright

Several theories try to explain the copyright related to a specific work. Thus, it is possible to point out the following: "The name copyright designates the group of prerogatives recognized and granted by law to the creators of intellectual works expressed by means of writing, printing, oral word, music, drawing, painting, sculpture, engraving, photocopy, cinematography, broadcasting, television, disc, cassette, videocassette and by any other communication means".<sup>13</sup>

Copyright is also a collection of rules and principles which regulate the moral and patrimonial rights granted by law to authors for creating a work. Such rights, according to law 15 of 1994, are independent of the material support containing the work; this means that authors are not transferring their rights when selling the material carrier.

According to Raymond Guillien, copyright is a prerogative granted to the author of an artistic or literary work, which implies a pecuniary and a moral right. It is important to bear in mind that, unlike the patent law, copyright protects the expression of an idea, not the idea itself.

In the legal field, the intention is to protect the rightholder against any person who may copy or modify the work; therefore, the main subject of copyright is work resulting from intellectual creation. In Panama, this encompasses literary, didactic, scientific, or artistic works, and also protects related rights, such as those of performers, phonogram producers, and broadcasting organizations. For instance, our legislation defines copyright in article 3 of Law No. 15 of 1994, in the following way: "The author is the original holder of the moral and patrimonial rights in the work, recognized by this law". That is to say, the author of a work is the one who appears as such on the work by his/her name, signature or sign identifying authorship.

The Panamanian law recognizes several rights of the author of a work following its creation. Those rights can include written works, software, conference speeches, lectures and works consisting of orally expressed words, musical compositions with or without a script, dramatic works and dramatic-musical works, choreographic and audiovisual works, pantomimes, photographs, sculptures, engravings, lithographs, map illustrations, topography, audiovisual and geographical works, software, architectural works, plastic works, journalistic articles – in short, any literary, artistic, didactic, or scientific work or production susceptible to being disclosed or published by any means or procedures.

In other words, we can conclude that copyright protects any production susceptible to being copied or reproduced without its legitimate creator's approval, to whom such protection is offered against the possible non-authorized use of such work. In addition, linked to copyright, we should note the co-author issue, relating to people who, together with the author, are the copyright's rightholders.

### 3.4 Types of Works Protected by the Panamanian Legislation

The group of works protected by Panamanian laws is grounded on the Bern Convention, which protects literary and artistic works. In this sense, the national laws have set forth a legal and conceptual framework, as

<sup>12</sup>It is important to mention that the Republic of Panama, although having ratified the so-called Internet Agreements, as of this date has not fully implemented them; consequently, the incorporation of the protection and observance of works in the digital field is still a pending issue in Panama.

<sup>13</sup>Medina Rangel: Copyright Mexican Federal Law in Official Gazette of the Federation, of December 24<sup>th</sup>, 1996, articles 11 and 13.

well as compliance with and/or the application of the law, which strengthens the national copyright system. As we pointed out before, Panamanian law protects the following works or creations:

**Table 7: Types of Works Protected by the Panamanian Legislation**

Type of Work	Description	Articles
<b>Literary works</b>	Written, scientific, didactic texts, software, databases, conferences, speeches, lectures, journalistic articles, translations, adaptations, transformations, folk work arrangements, anthologies and compilations of diverse works.	Articles 7, 17, 18, 23, 24, 25, 26, 27, and 28 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Musical works</b>	Musical compositions, with or without a script, dramatic works and dramatic-musical works, choreographic works, pantomimes.	Articles 7, 8, 85, 86, 87, 88, and 89 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Artistic works</b>	Architectural works, plastic works, fine art works, including paintings, drawings, sculptures, engravings, lithographs, applied works of art.	Articles 19, 20, 21, and 22 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Maps and technical drawings</b>	Map illustrations, diagrams and sketches and works related to geography, topography, architecture or sciences.	Article 7 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Photographic works</b>	Photographic works and those works made under similar procedures.	Article 7 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Films or cinematographic works</b>	Audiovisual works, regardless of the material support or procedure employed.	Articles 7, 10, 11, 12, 13, 14, and 15 of Law No. 15 of August 8 <sup>th</sup> , 1994.

### 3.5 Exclusive Rights

The fact of being the author of a work entails exclusive economic rights (such as exploitation, reproduction, assignment, etc.) and exclusive rights of a moral nature (such as the decision of publishing a work or not, the fact of being recognized as the author by means of mentioning the name or a pseudonym, modifying the work or preventing the modification or destruction of the work).

The economic right comprises, in particular, the rights to modification, public communication, reproduction and distribution. These rights are independent of each other. It is important to point out that article 14 of Regulation 261 of Law 15 on copyright stipulates that the exploitation modalities set forth by law are just enunciative. Among the exclusive patrimonial rights set forth by the national law, we can mention:

#### 3.5.1 *Reproduction Right*

The exclusive right of the rightholder, by means of which he has the power and freedom to decide the material fixation of the work by any system or procedure and to prevent the work from being copied, published, or edited by a third party, without his authorization. This right is set forth by article 36 of Law No. 15 of August 8<sup>th</sup>, 1994.

#### 3.5.2 *Translation Right*

Law No. 15 of August 8<sup>th</sup>, 1994, grants exclusive rights to make or authorize translations of a work, but limits such rights to the original work, which has an own or natural right conferred to the author. In addition, the reproduction or publication of a translation by a third party is allowed, provided the authorization of the original work's author, as well as the authorization of the adaptation or translation's copyright rightholder, has been given.

#### 3.5.3 *Adaptation, Arrangement, and Other Alteration Rights*

Likewise, Law 15 of 1998 protects the author or creator of a work by providing that works may be adapted or edited; however, the author of a work keeps his rights in relation to the original work. Furthermore, here, duality of rights is also created by granting protection to the person or persons who

arrange or adapt a work, although these rights are not as exclusive as the author's right, since the exclusivity is kept by the original author, the creator; the person who modifies a work has exclusivity only in respect to their own modifications, that is their adaptation of the work.

In addition, other persons are allowed to adapt or modify the original work. This innovation is very common nowadays due to technological advances, by means of which written works may be captured on databases and redesigned to obtain a better illustration with an advanced technique which did not exist before. Likewise, modifications to folklore compositions belonging to a collective, which are transmitted from generation to generation, from parents to descendants, are allowed; these cannot be considered exclusive, as the author of them is not unique, for they belong to an ethnic group or other group or collective.

Consequently, arrangements, adaptations or modifications to them do have an exclusive right because they mean a new work or creation which changes or modifies the original. In these cases, the law requires that the author just indicates the ethnic group or region to which the modified, redesigned, or arranged work belongs.

#### **3.5.4 Public Performance Right**

Comprises the performance of the created work, whether by means of theater performance, documentary or film – for example, using electronic devices so that the public may appreciate the work, or exhibiting it or performing it by actors. Here, some variants may be appreciated; the author or creator of the work has the original right which is granted for being the author or creator of the work itself, but, in addition, other co-authors are going to have exclusive rights upon its creation too.

For example, in a film or work, we can mention the director or producer, the author of the plot, the author of the adaptation, the author of the script and dialogues, the author of the music composed for the film, the author of the drawings designed for the work, especially if they are animated cartoons. The law protects not only creators but co-authors too, in an individualized way, as authors of a specific branch, but with some limits. The director or producer will have the exclusive right of performance before the public and before the law to enforce the rights of the audiovisual work already performed; of course the law grants the right to each author on his own creation, on his individual work, and grants exclusivity upon this part and the right of not being damaged. On the other hand, in the event a co-author cannot finish their creation, they cannot prevent the work from being performed. Furthermore, the law grants exclusive rights upon their part, upon their own creation, but to be used in different spheres.

#### **3.5.5 Broadcasting Right**

Comprises broadcasting through wireless networks for the public reception of sounds, television, and television cable networks, among others. The broadcasting right or works made by means of television programs, news programs, and radio programs, whether news, miscellany, entertaining, etc, are protected by law under the same terms as audiovisual works.

#### **3.5.6 Public Communication Right**

Encompasses any activity carried out so that a work is received by attendees, foreign to the members of the author's family. It refers, among others, to scenic representations, recitals, lectures, and public performances of works; projection of audiovisual works; and presentation or exhibition of works of art or their reproductions. These rights may be transferred by mandate or legal provision, *inter vivos* or *mortis causa*. The assigned rights, terms, and territorial sphere are limited to the provisions of the contract.

#### **3.5.7 Distribution Right**

The distribution right encompasses the author of the work's right to authorize or not to authorize the availability of the issues of the work to the public, whether by means of sale, leasing, or any other means of distribution. The distribution right is the creator of the work's right to authorize or not to authorize the publication of their work. It is granted to guarantee that the basic reproduction right is respected.



### 3.5.8 *Rental Right*

This is granted mainly to contents of compact discs containing music played by both national and foreign musicians, audiovisual works, and software. This right protects the content of CDs from being copied any time music is leased by stores, restaurants or broadcasting agencies, etc., which receive revenues in their stores or which are destined to attract the public in order to sell their goods.

Likewise, audiovisual works and software are protected against illegal copies. It is important to mention that music listened to at home or at family parties, which does not involve the collection of money and which is just listened to for amusement and recreational purposes, is exempted from the protection.

### 3.5.9 *Moral Rights*

Moral rights encompass the author of the work's exclusive rights – that is to say, the author's right to publish or distribute their work, authorship right, right to integrity, right to access, and right to revoke or withdraw the work from commerce. It is the right to be recognized as the author of the work, and the right of the author's work not to be modified or altered. It is important to mention that moral rights include the transferring of rights upon the author's death to the author's heirs, who receive the rights recognized by the law to the author of the work.

## 3.6 **Limitations to Copyright**

The Panamanian legislation states that certain works, in order to be protected, must be fixed in a tangible format. There are also some limitations to the author's or rightholder's rights in some situations in which the exploitation of the works does not require any authorization.

As we have been mentioning, the scope of the rights is determined by other people's rights – that is to say, there are limitations to the copyright in order to guarantee other rights or the access to works in specific situations. Hereinafter, we analyze the limitations provided by the Panamanian law. To begin with, we can mention communications within the family; in this situation, communications are considered legal and without any right to receive an authorship payment:

- Communications during official events or religious ceremonies.
- Communications for didactic purposes in academic institutions.
- Communications for the blind.
- Communications inside commercial premises for demonstrative purposes to clients through receivers, recorders or similar devices, or for selling sound or audiovisual supports containing works.
- Communications during judicial or administrative procedures as part of a judicial or administrative process.

All these communications are considered legal, provided a profit-earning interest is not sought with the execution thereof, and they constitute limitations to the copyright of the creator. Legally distributed works: in connection with the works distributed, published and on sale to the general public, we can point out that they may constitute limits to the copyright in the following cases:

- The person who acquires the work has the right to reproduce a copy of such work for personal use or for avoiding its deterioration, which constitutes a limitation to the copyright.
- The person who acquires the work has the right to make photomechanical reproductions such as photocopy or microfilm, provided such reproduction is made in small numbers and for personal use.
- Reproduction by means of reprography of articles, and extracts of works, legally published for didactic purposes to prepare exams.
- Individual reproduction to a library, whether the issue is at the permanent collection thereof, or because the work is lost, or for preservation or replacement purposes.
- Reproduction of a work for judicial or administrative purposes.
- Reproduction of a work of art when it is exhibited to the public on streets, in squares or in other similar public places, provided such reproduction is made with a technique different from the original one.
- Software is allowed to be reproduced in one backup copy.
- Adding software to the memory of a computer by the user who bought it.



Such group of rights or guarantees is acquired by those persons who legally buy a work, limited, in turn, by the justification of use and by not seeking a profit-earning interest with the reproduction of it. Likewise, we can include here the right of any person, when consulting a book in a library or purchasing a work, to quote any work, provided they include the name of the author, publishing house and full name of the consulted work.

In the same way, the publication and distribution of articles published in newspapers regarding financial, political, social, artistic, and religious current affairs is allowed, provided they are not of a confidential nature. The distribution by sound or audiovisual means of current affairs – and of images or sounds of works seen or watched during said affairs – is also legal, provided they comply with the right of information.

In the case of speeches, lectures, presentations, sermons, and works of a similar nature given in public, the distribution is allowed. Furthermore, broadcasting entities are allowed to record works employing their own equipment and without any authorization, provided they have broadcasting rights and with the restriction of destroying the record in a term of six months; if the work has documentary content, it can be kept. Likewise, a broadcasting entity, without the author's authorization, may transmit or broadcast the work which was broadcast without alterations.

Regarding software, a user may legally make a software adjustment for their own exclusive use. It is important to point out that legal texts, laws, decrees, and all texts related to judicial, administrative, and commercial processes and procedures in general can be reproduced, any time a general and full distribution is needed, with the consequently public knowledge of the laws issued by the government and the easy compliance with them.

### 3.7 Duration of Copyright Protection

The law is clear when it establishes that the protection of the economic right lasts the life of the author and fifty years from the date of their death. We can find many cases in which it is important to know when this protection starts. For example, in the case of works made in collaboration, the fifty *mortis causa* years will start from the death of the last of the collaborators; in the cases of anonymous and pseudonymous works, the protection lasts fifty years from the year of the distribution thereof (in the case that the author became known, it would last the life of the author plus fifty years); in the case of collective works, software, and audiovisual works, the right is exhausted fifty years after the first publication thereof. All these terms come into force as from the first day of the month of January of the year following the death of the author or publication of the work.<sup>14</sup>

### 3.8 Related Rights

Related rights are the rights which protect persons other than the author, such as performers, phonogram producers, and broadcasting organizations. The objective of these rights is to protect certain artistic or technical-corporative activities, the result of which is not the creation of a work but auxiliary activities for the diffusion of protected creations. These rights correspond to performers, phonogram producers, and broadcasting organizations.

The recognized protection of the related rights does not affect in any way the protection of the copyright upon scientific, artistic, or literary works; therefore, none of the provisions connected to the related rights may be construed to the detriment of such protection (the "hardship" clause of the Rome Convention). When authorization is required both from the author of a work established in a phonogram and from the artist, performer, or executor of the phonogram, the requirement of the author's authorization does not exempt the artist, performer, or executor's authorization, and vice versa.

Author's moral rights are more substantial than related rights. Author's moral rights are not applicable in the case of rightholders of related rights, because in the latter case the rights protect organizational and technical-corporative activities and not activities of a personal nature.

<sup>14</sup>The difference between a work in collaboration and a collective work is that the first is a work jointly or interdependently created by two or more natural persons; the second is a work created by several authors under the responsibility of one (1) natural or legal person who publishes it under his or her own name, and which, by the number of contributions of the participating authors or by the indirect character of the contributions, are merged in the whole work in such a way that it is impossible to identify the different contributions of the participating authors involved in its creation.

On the other hand, economic rights are those attributed by law to each one of the related rights categories. These are applicable to all the intellectual rights protected by law, for example rights of equitable compensation for private copy, presumption of illegality of activities carried out without the consent of the respective rightholders of rights, joint responsibility of those who authorize or support the performance of illegal acts, actions or procedures destined to defend the powers recognized by law, and limitations and restrictions to exclusive rights. Among them we can include the following rights:

### 3.8.1 Performers' Rights

The performers have the exclusive right to authorize or not to authorize the fixation, reproduction, or public communication, by any means or procedure, of their interpretations or performances.

They may not oppose communication when such communication has been made with their prior approval, and has been published for commercial purposes. They have also the moral right to link their name or pseudonym to the performance and to prevent any deformation of the work which may endanger their reputation or integrity.

### 3.8.2 Rights of Phonogram Producers

Phonogram producers have the exclusivity to authorize or not to authorize the reproduction of their phonograms, as well as the right to receive remuneration for the communication of the phonogram to the public. This right grants protection for fifty years.

### 3.8.3 Broadcasting Rights

It is the right of broadcasting organizations to authorize or prohibit the retransmission or reproduction of broadcasts. It has the same term of protection of fifty years starting from January 1<sup>st</sup> following the broadcasting.

## 3.9 Copyright Markets

The various rights described above constitute the legal framework in which the economic transactions of the cultural industries take place. Copyright and related rights have economic functions of great importance in our economy. Economic transactions involve many rights, the values of which are determined by different market factors.

**Table 8: Copyright and Scope of Respective Markets**

RIGHTS	SCOPE OF THE MARKET
Reproduction right	Reproduction of works, both materially and immaterially. It also involves the adaptation, arrangement, and transformation of works.
Distribution rights	Distribution of material copies, resale, sale and leasing, and loan of copies of musical works included in phonograms, audiovisual works, software.
Communication to the public	Transmission by cable TV, retransmission of works by means of telecommunication or interactive communications, or digital networks.
Public performance	Live representations of works to the public including phonograms and recordings.
Broadcasting	Transmission of works by wireless or non-interactive means to be received by the public. It includes satellite transmission.

It is important to mention that the interrelation of rights protected by national legislations encompasses an entire field of business. In other words, it involves several economic activities which generate wealth and employment. It is possible to establish a calculation methodology to measure the contribution made by the cultural industries to the economic activity of Panama, and the employment generated by these industries, as long as it is possible to measure and/or quantify their real contribution to the national economy.

### 3.10 Compliance Measures

Compliance measures play an important role in the safeguarding of the economic interests of authors and rightholders, by having an effective system of civil, criminal, and administrative sanctions which helps cultural industries to grow. This creates a proper framework to attract investments, which has a positive impact on the economic and social indicators of our economy.

The effective application of the copyright laws which have come into force in our country in the field of copyright and intellectual property has contributed to significant development of the entities in charge of the implementation of copyright law and related rights. Both executive and judicial entities have been involved in executing copyright law, thus protecting copyright and reducing fraudulent use of original works.

In accordance with the reports of the Ministry of Commerce and Industries, the legal system has the aim of enforcing intellectual property rights. The national government has been making a constant, effective, and consistent effort during recent years to protect intellectual property rights, a fact that has been recognized by the member states of the World Trade Organization. This is evidenced by the fact that, by means of Resolution No. 13 of March 9<sup>th</sup>, 2006, the National Attorney General's Office established that the Superior Public Prosecutor's Office would specialize in crimes against intellectual property and would exclusively deal with denunciations and claims as well as commence summary proceedings for crimes "against copyright and related rights" and "against intellectual property rights" committed in the whole territory of the Republic of Panama.

In 2006, 47,918 formats, comprising 33,065 videograms and 14,927 phonograms, were apprehended. The estimation of the damage which would have been caused in the event that the above-mentioned illegal material had not been apprehended is calculated at US\$ 661,300.00 in the case of the videograms and US\$ 223,905.00 in the case of the phonograms. In the same way, during 2006, the customs authority had twenty-seven cases regarding the retention of presumably counterfeit merchandise in the Panamanian territory.

During 2006, the Intellectual Property Department of the Colón Free Trade Zone carried out forty-five inspections, of which thirty-one were ex officio, twelve were by means of a lodged complaint and two were registered by exercise of the Competent Judicial Authority. From said procedures, twenty retentions of merchandise were carried out, since they were presumably violating rights protected by intellectual property law. In those cases of merchandise retention, the due process of law was respected in each of the administrative procedures, seeking the continuity of the commercial activities within the free zone.

The laws created since 1994 in all copyright fields have been applied by the competent authorities on a daily basis. The efforts of the Republic of Panama to strengthen intellectual property rights have improved the country's image in the eyes of investors, which has boosted domestic and foreign investment and services related to intellectual property.

In order that there is real compliance in the copyright field, it is important to keep an interrelation through permanent networks for cooperation in such a way that the copyright protection is real and effective. In fact, the Ministry of Education, by means of the National Office of Copyright, hears on offenses against Law 15 of 1994 on copyright and related rights and has powers to fine offenders in the range of one-thousand US Dollars (US\$ 1,000.00) to twenty-thousand US Dollars (US\$ 20,000.00).

Likewise, this Office may practice preventive measures in order to try to stop the violation of intellectual rights; it may investigate and sanction behaviors which, despite not constituting crimes in themselves, may damage copyright and related rights; it may control the functioning of collective management corporations; it may foster the diffusion of intellectual creations and the protection thereof; and it may act as mediator in the case of conflicts and differences.

The Public Ministry of Justice, through the Superior Specialized Public Prosecutor's Office, has the ability to commence summary procedures, whether ex officio (when the crime is heard through institutions in charge of apprehending) or by means of complaints which may be lodged by any citizen or by means of complaints lodged by the affected party. The Ministry of Government and Justice, through the Specialized Division of the Office of Legal Investigation of the National Police Department, investigates and is in charge of the surveillance in the country.

The Judicial Body – through the criminal circuit courts, the criminal superior courts, and the civil circuit courts, which are specialized courts with civil jurisdiction, created by Law 29 of February 1<sup>st</sup>, 1996 – is in charge of examining the summary proceedings and constructing and applying the laws.

The Ministry of Economy and Finance, through the Intellectual Property Department of the General Office of Customs, who apply the “border measures”, may carry out inspections and retain merchandise, whether ex officio, upon request of an interested party, or by order of authority.

Executive Decree 79 of 1<sup>st</sup> August, 1997, which regulates Articles 177 and 178 of Law 35 of 10<sup>th</sup> May, 1996, created the Intellectual Property Department of the Colón Free Trade Zone. This department has inspection and retention capabilities, whether ex officio, upon request of an interested party, or by order of authority.

Finally, the Presidency of the Republic created, by Law 23 of 1996, the Intellectual Property Interdisciplinary Commission, with the aim of ensuring better coordination and application of intellectual property laws. In this sense, representatives of the different entities, bodies and institutions with competence and application in the intellectual property system were appointed<sup>15</sup>.

<sup>15</sup>The Intellectual Property Interdisciplinary Commission (or CIPI, for its Spanish acronym) comprises the following institutions: National Office of International Trade Negotiations, National Office of Copyright, General Office of Intellectual Property Registration, Superior Public Prosecutor’s Office of Intellectual Property, Intellectual Property Department of the General Office of Customs, and Intellectual Property Department of the Colón Free Zone General Administration. In the future, it is expected to include institutions such as The Office of Judicial Investigation (or DIJ, for its Spanish acronym) and the National Environmental Authority (or ANAM, for its Spanish acronym).

## 4. Assessment of the Contribution of the Copyright-Based Industries in Panama: 2002–2006

### 4.1 General Performance of the Panamanian Economy

The period 2002–2006 can be characterized as a period of economic growth which started with a 2.2% growth rate of the GDP in 2002, and continued growing in the subsequent years, reaching a rate of 8.6% in 2006. Such growth continued up to 2007, when the GDP reached the highest growth rate of 11.2% and later grew at a rate of 8.5%. In the period 2002–2006 the average growth rate was 9.2%. The main economic indicators show that between 2002 and 2006 the Panamanian economy showed positive signs of economic development. The GDP growth rate increased 6.3% and the inflation rate increased 1.9% due to the greater demand for goods and services; however, the increment is low considering the terms being compared.

The unemployment rate decreased by 5.4%, going from a 2-digit rate to a 1-digit rate, which indicates that the governmental employment policies had been positive in some way. This fact had an influence on the per capita income (measured at 1986 prices) which increased by B/. 816, going from US\$3,821 in 2002 to US\$4,640 in 2006. Table 9 shows the changes experienced by these indicators.

**Table 9: Main Macroeconomic Indicators of Panama**

INDICATOR	YEAR		DIFFERENCE
	2002	2006	
Growth rate of the GDP	2.2	8.5	6.3
Inflation Rate	1	2.9	1.9
Unemployment Rate	13.8	8.7	-5.4
Per Capita Income (In US\$ of 1986)	3,821.00	4,640.00	816

Source: The author, based on data provided by the General Comptroller's Office of the Republic.

### 4.2 Sectorial Performance of the Panamanian Economy

The tertiary sector is the largest sector of the national economy; it represented, in 2002, 86.4 per cent of the GDP and a similar proportion in 2006. The main economic activities of the country are included in this sector, such as the Panama Canal, the Colón Free Trade Zone, the banking center, telecommunications, port activities, and tourism.

The primary sector has a tendency to reduce its relative share in the GDP. Traditional products such as banana, marine products, and sugar cane exports tend to lose market share and agricultural exports do not achieve a steady growth. That is the reason why this sector only represented 8.9% of the GDP in 2002 and 7.8% in 2006.

Within the secondary sector, the manufacturing industry has not been a major sector in the national economy. Manufacturing is in practice replaced with assembly. Beverage, paper, and metal industries, in fact, import semi-manufactured products which are later assembled here. The dairy industry, for example, imports more than 50% of its raw material, powdered milk. Electricity, gas, and water supply, together with construction, contributed about 40% to the GDP of the secondary sector in 2002 and a little bit more than 50% in 2006. The secondary sector's contribution to the economy was 14.8% in 2002, and 14.4% in 2006.

These structural characteristics generate an open economy with a foreign trade that results in an increasing commercial deficit. In 2002, the commercial deficit of exports in relation to imports was US\$ –2,275,682; in 2006, this deficit had grown to US\$ –3,809,084.



In 2002, the economically active population was 1,250,874 persons, 62.7 % of the population, of which about 14% were unemployed. In 2006, the unemployment rate had fallen to 8.7%. Although these figures do not reflect the real state of unemployment, if we include informal labor, they do reflect a correct diminishing tendency before the economic growth. In 2006, the employed population was 1,294,937 persons, 62% of whom were concentrated in the tertiary sector. In turn, this sector tends to be concentrated in urban areas, where 63.5% of the population is concentrated; 57% of the population of the country is located in the Province of Panama and Colón, where the Trans-Isthmian Route is located.

## 4.3 Contribution of the Copyright-Based Industries to Employment

### 4.3.1 Methodology Used

#### 4.3.1.1 Information Sources

As mentioned in Chapter 2, the information used for the analysis of the employment generated by the copyright-based industries corresponds to the last two databases of the Business Directory (2002 and 2006), taken and provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. The Business Directory is a statistical publication prepared by this official statistical institution of Panama, in accordance with the national legal regime, which is published every five years.

To carry out a comparative analysis of the employment generated in this sector and the employment generated by other traditional sectors in the Panamanian economy, the definitions and concepts provided by the above-mentioned Continuous Home Poll of the General Comptroller's Office of the Republic to determine the condition of the Panamanian population's activity were taken into consideration. In this sense, the population can be classified, according to condition of activity, into two basic groups which provide information on the participation of their different components in the economy of the country:

- **Economically Active Population (EAP):** Comprises people of fifteen years of age and above, who provide the available labor force for producing goods and services in the country, classified as employed and unemployed.
  - **Employed Population:** This group includes persons who:
    - had an occupation or paid job, in money or in kind.
    - regularly worked for a company belonging to a member of their own family, even when they did not receive payment or salary.
    - had a fixed, paid job but did not work at all during the reference period due to a transitory circumstance.
    - did not work during the entire period under consideration, but they work for fixed terms.
  - **Unemployed Population:** This group includes:
    - **Population with open unemployment:** This group comprises persons who, during the term of reference:
      - did not have a job, but were looking for one.
      - did not look for a job because they had got a job which would start at a later date.
      - had never worked and were looking for their first job.
      - looked for a job during the last four weeks.
    - **Population with hidden unemployment:** This group comprises persons who, during the term of reference:
      - got tired of looking for a job.
      - looked for a job but did not take specific actions to get it.
      - looked for a job, took specific actions to get it, but were not available to take the specific job.
      - were not looking for a job, but had been looking for one before and were waiting for some news.



- **Non-Economically Active Population (NEAP):** Comprises housewives and other categories, such as students, persons who do not work and do not look for a job, retired persons, pensioners, and renters. Two inactive population groups can be identified within this category:
  - **Pure inactive persons:** Non-economically active persons who reported on the poll that they were “Not looking for a job during the last four weeks”, or that they did not have the intention of “looking for a job in the six subsequent months” after the date of the poll.
  - **Potentially active persons:** Non-economically active persons who reported that they “have the intention of looking for a job in the six subsequent months” after the date of the poll.

#### 4.3.1.2 Handling of Information

The used databases have differences in relation to the rank or interval size of the scales utilized to present the final results. The 2002 database uses shorter intervals in the levels of generated employment than those used in the 2006 database. The 2002 database showed more disaggregated information in at least 20 ranks in the employment level, so it showed ranks of five employees each; however, the 2006 database showed larger ranks and summarized just seven ranks of at least 40 employees each. In order to correct this difference and to obtain comparable results, the ranks which most affected the results were validated, that is to say, the ranks corresponding to levels of between one and ten employees, those being the most frequent for enterprises related to copyright.

In connection with the handling of available information, in a first analysis, general aspects of the Panamanian labor market are described for the years under study, that is to say, 2002 and 2006. Regarding the labor market analysis referring to 2002 and 2006, some data for 2008 are herein highlighted as well. Later on, in an internal analysis of the structure of the copyright-based industries, the general participation in the employment generation of the enterprises within each industry category is calculated; the rank established for the levels of generated employment is averaged; and, afterwards, the volume of employment generated by each category for each year is calculated, applying the relevant copyright factor to each obtained result. Finally, in a third analysis, the results obtained from the copyright-based industries regarding employment at a national level are compared to measure the impact on the national economy through this indicator.

#### 4.3.2 General Aspects of the Panamanian Labor Market

According to the Continuous Home Poll carried out by the General Comptroller’s Office of the Republic, in 2002 Panama had an EAP of 1,250,874 people, of whom 13.8% (170,351) were unemployed. For the following year (2003), the unemployment rate decreased to 13.0% and continued decreasing to end in 2006 to a rate of 8.68%, as shown in Chart 02 and Graphic 01. Currently (2008), this rate corresponds to 5.56% of the EAP, which is the lowest rate historically registered in the country.

It is necessary to highlight that the period 2005–2008 was characterized by a rapid reduction in levels of unemployment, as, in 2008, there were 1,506,104 economically active persons, 1,422,309 of whom were employed, which corresponds to 85,336 more employed persons than the previous year. However, 44% of the population is informally employed, mainly in the commercial sector, private workers, and self-employed.

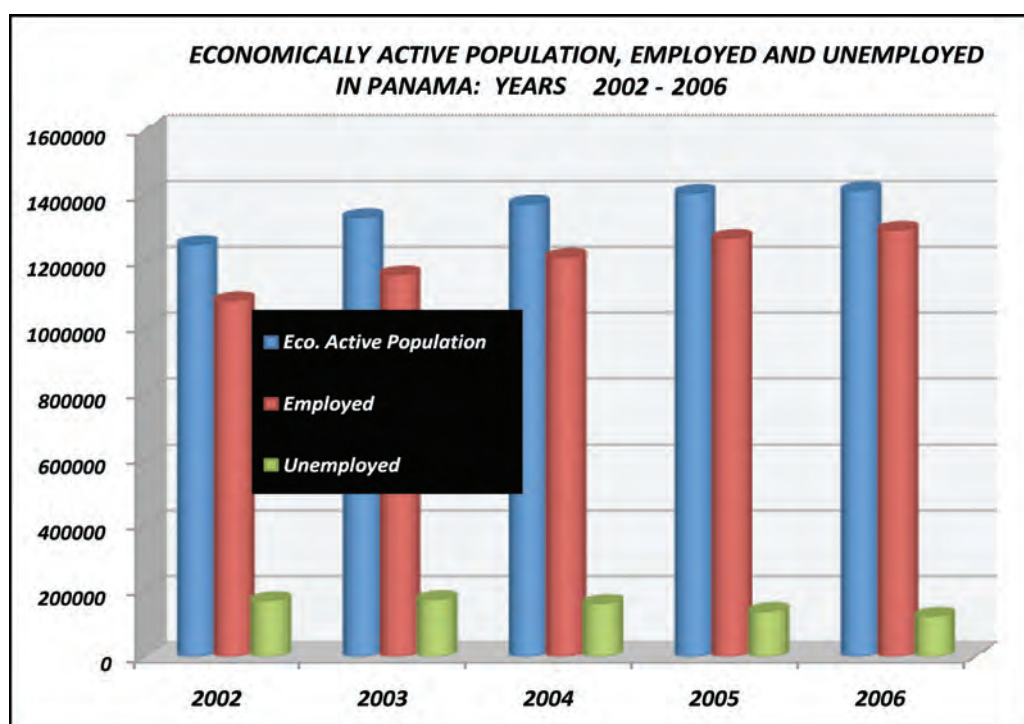
**Table 10: Population of 15-year-olds and Older in the Republic of Panama, according to Economic Activity Condition**

Years: 2002-2006

Indicator	2002	2003	2004	2005	2006
Population of 15-year-olds	1,992,844	2,121,904	2,169,184	2,216,195	2,260,342
Economically Active Population	1,250,874	1,333,000	1,374,148	1,407,458	1,415,080
Employed	1,080,523	1,159,155	1,212,705	1,269,885	1,294,937
Unemployed	170,351	173,845	161,443	137,663	122,799
Open	141,781	144,689	126,409	107,084	95,140
Hidden	28,570	29,156	35,034	30,579	27,659
Unemployment Rate	13.80%	13.04%	11.75%	9.78%	8.68%
Formal Employment	42.5	47.4	50.25	53.1	53.47
Informal Employment	57.5	52.6	49.75	46.9	46.6
Not Economically Active Population	741,970	788,904	795,036	808,737	845,262

Source: Own Preparation based on data provided by the Continuous House Poll Survey of the General Comptroller's Office of the Republic.

**Figure 1: Economically Active Population, Employed and Unemployed in Panama**



Source: Own Preparation Based on Chart 02.

In 2006, 62.5% of the employed persons (809,849) worked in the tertiary sector. Of these, 322,454 were employed in the wholesale and retail, commercial, transportation, storage, and communication sectors. The rest of the employed population – that is to say, 37.5% (485,088) – were employed in the primary and secondary sectors, as shown in Table 11.

**Table 11: Employed Population of 15 years and Older, according to Sector and Economic Activity in the Republic of Panama. Years: 2002 -2006**

Sector and economic activity	2002	2003	2004	2005	2006
<b>Total EAP</b>	<b>1,333,000</b>	<b>1,333,000</b>	<b>1,374,148</b>	<b>1,407,458</b>	<b>1,415,080</b>
<b>Employed EAP</b>	<b>1,159,155</b>	<b>1,159,155</b>	<b>1,212,705</b>	<b>1,269,795</b>	<b>1,294,937</b>
Primary Sector	242,101	244,430	233,916	244,655	252,857
Agriculture, cattle raising	230,224	232,553	219,816	230,224	237,811
Fishing	11,877	11,877	14,100	14,431	15,046
Exploitation of Mines and Pits	1,032	1,032	698	1,038	2,310
Secondary Sector	196,883	196,883	214,506	216,305	232,231
Manufacturing Industries	107,349	107,349	114,871	115,793	118,277
Supply of electricity, gas and water	8,834	8,834	8,434	7,728	8,583
Construction	80,700	80,700	91,201	91,746	103,061
Tertiary Sector	715,906	715,906	735,862	808,835	809,849
Retail / wholesale trade	198,342	198,342	212,055	230,151	231,405
Rest. and hotels	53,930	53,930	61,289	70,281	64,599
Transportation, storage and communications	86,791	86,791	89,802	92,627	91,049
Financial interm.	21,719	21,719	24,956	24,305	26,384
Real estate act.	44,897	44,897	54,092	61,793	62,767
Public administration and defense	75,067	75,067	74,557	70,055	71,207
Education	65,833	65,833	68,468	67,366	67,249
Social services and health	38,645	38,645	44,200	48,022	49,200
Other social and personal act.	66,385	66,385	36,792	73,381	69,731
Home / Domestic services	64,297	64,297	69,651	70,282	75,434
Extraterritorial Org.	925	1,004	723	572	824

Source: Own preparation based on data bank of the General Comptroller's Office of the Republic, House Poll Survey

### 4.3.3 Contribution of the Copyright-Based Industries to Employment

#### 4.3.3.1 Total Employment

Theoretically, it is alleged that the higher the value added rates are, the higher the employment generated will be; however, in Panama, such relation, although being direct, is not proportional due to the productivity problem. Thus, there is great development of tertiary activities linked to the provision of services which, added to the introduction of new technologies, eliminate a great part of the labor force; for this reason, the growth of the employment generated is not proportionally direct to the growth of the value added, considering that the Panamanian economy is basically sustained by the service sectors.

In a first analysis, it is evident that most of the copyright-based industries, both in 2002 and in 2006, generated between one (1) and five (5) employments; thus, from the 3,756 enterprises which in total belonged to the copyright-based industries category, 81.12% showed an average level of 1 to 5 workers in 2002. A similar performance was observed in 2006, when they represented more than 82.49%. Conversely, enterprises generating more than 200 employments represented only 0.29% of the total employment generated by the copyright-based industries in 2002; in 2006, this figure had fallen to 0.24%. The information shown in Tables 12 and 13 and their respective graphics lead us to conclude that the copyright-based industries are

not generators of employment in large units; on the contrary, in 2006, only 27 enterprises generated more than 200 employments.

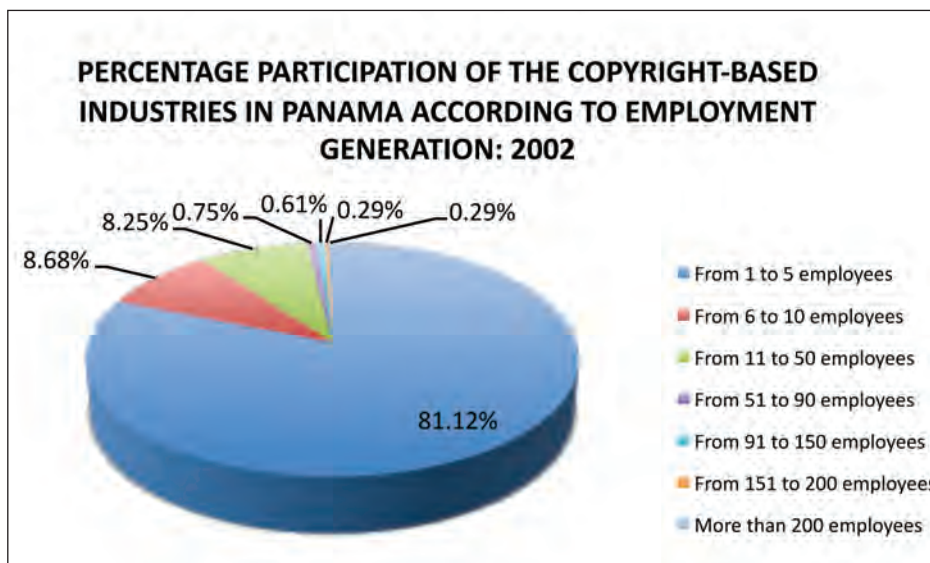
**Table 12: Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees**

Year 2002

Number of Enterprises	Proportion	Average Level	Level of Employees	Employment Generated
11	0.29%	250	201-300	2,750
11	0.29%	175.5	151-200	1,931
23	0.61%	120.5	91-150	2,772
28	0.75%	70.5	51-90	2,772
310	8.25%	30.5	11-50	1,974
326	8.68%	8	6-10	2,608
3,047	81.12%	3	1-5	9,141
3,756	100.00%			30,627

Source: Managerial Directory , General Offices of Statistics and Census, General Comptroller's Office of the Republic.

**Figure 2: Percentage Participation of the Copyright-based Industries in Panama according to Employment Generation**





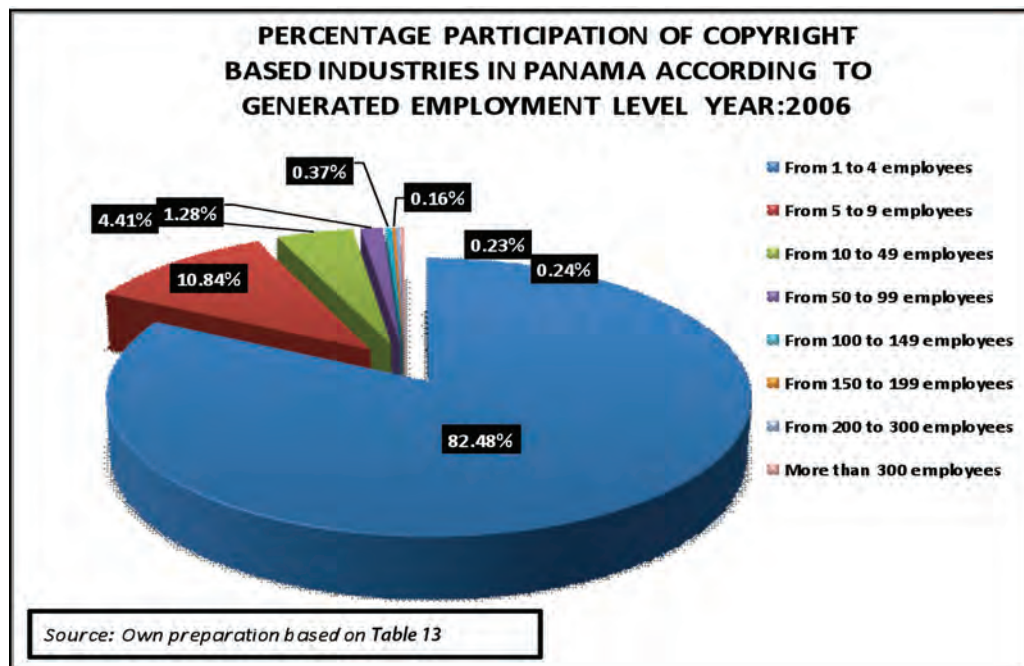
**Table 13: Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees: Year 2006**

Number of Enterprises	Proportion	Average Level	Level of Employees	Employment Generated
14	0.24%	352	301-349	4,550
13	0.23%	250	200 to 300	3,250
9	0.16%	174.5	150 to 199	1,571
21	0.37%	124.5	100 to 149	2,615
73	1.28%	74.5	50 to 99	5,439
252	4.41%	29.5	10 to 49	7,434
620	10.84%	7	5 to 9	4,340
4,717	82.49%	2.5	1 to 4	11,793
<b>5,718</b>	<b>100.00%</b>			<b>40,990</b>

Source: Managerial Directory , General Offices of Statistics and Census, General Comptroller's Office of the Republic.

In general, it is possible to assert that for the period under analysis the industries which provided the greatest number of enterprises and had more participation in employment generation were the core copyright industries, which increased in number during the period, from 1,563 enterprises in 2002 to 2,170 enterprises in 2006.

**Figure 3: Percentage Participation of Copyright-based Industries in Panama according to Generated Employment Level**



In the same way, the core copyright industries showed continuous growth in the number of employments generated, from 15,867 employments in 2002 to 19,714 employments in 2006. Such figures can be observed in a general way in Table 14 and Figure 4. Results also show that industries of lower impact with regard to employment generation are non-dedicated support industries, which in 2006 contributed 1,241 employments, divided between 200 enterprises in total.

According to the above-mentioned facts, the core copyright industries accounted in 2002 for about 51.8% of the employment generated by the entire copyright-based industries sector; such participation continued to be significant in 2006, when it represented 48.1% of the total. Likewise, but under better conditions,

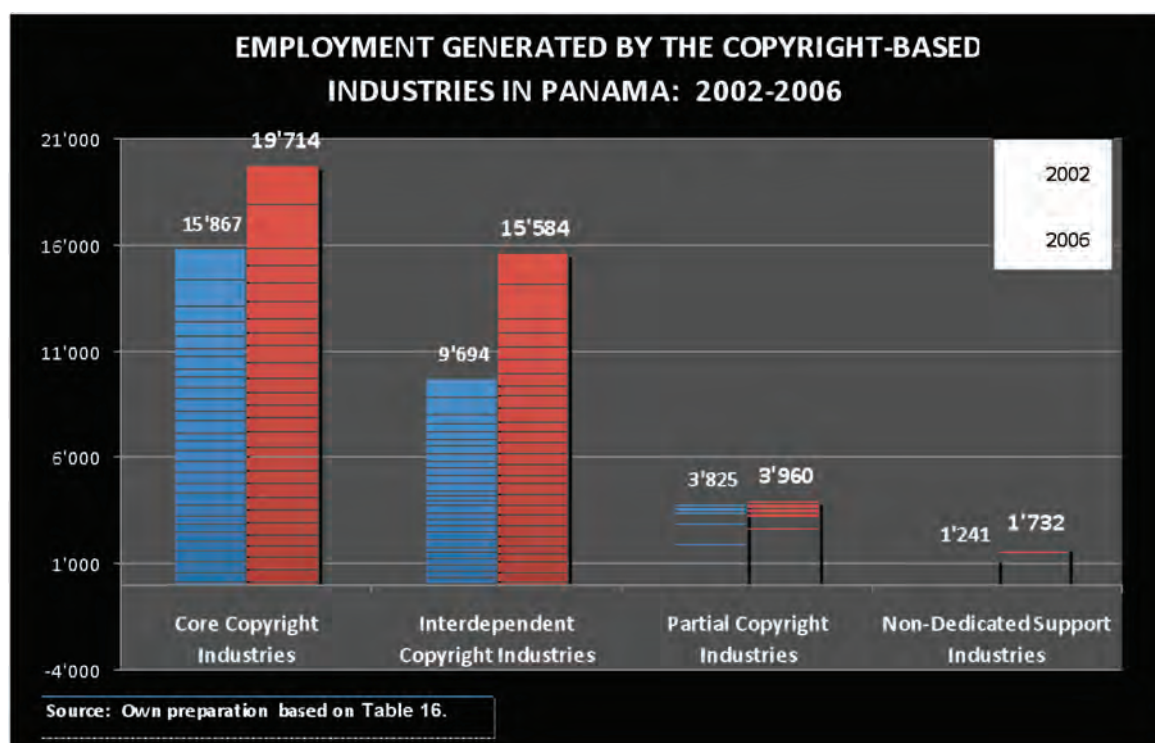
interdependent copyright industries made a significant contribution in terms of both the number of industries within the category and the generation of employment. Interdependent industries accounted for 31.7% of the employment generated in 2002 and about 38.0% of the total in 2006.

**Table 14: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category in the Republic of Panama**

Category of Industries	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
Total	3,756	30,627	100%	5,718	40,999	100%
Core Copyright Industries	1,563	15,867	51.81%	2,170	19,714	48.1%
Interdependent Copyright Industries	1,481	9,694	31.17%	2,546	15,584	38.0%
Partial Copyright Industries	512	3,825	15.5%	624	3,960	9.7%
Non-Dedicated Support Industries	200	1,241	4.1%	378	1,732	4.2%

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 4: Employment Generated by the Copyright-based Industries in Panama**



The general results for each activity can also be broken down and divided into the number of employments generated by enterprises in each specific copyright industry. The summary table below (Table 15) presents the results for each industry, which are explained in sections 4.3.2, 4.4.3.3, 4.4.3.4 and 4.4.3.5. The results reflect the individual performance of each category and subcategory of copyright-based industries in relation to the employment variable.



**Table 15: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Industries and categories	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>	<b>3,756</b>	<b>30,627</b>	<b>100</b>	<b>5,718</b>	<b>40,99</b>	<b>100</b>
<b>1. Core Copyright Industries</b>	<b>1,563</b>	<b>15,867</b>	<b>51.81</b>	<b>2,17</b>	<b>19,714</b>	<b>48.09</b>
1.1 Press and publications:	735	7,300	46.01	840	7,841	39.77
1.2 Music, theater production and opera:	156	1,513	9.54	549	4,603	23.35
1.3 Cinematographic films and videos	26	353	2.22	34	554	2.81
1.4 Radio and television	190	2,220	13.99	172	3,063	15.54
1.5 Photography	168	1,644	10.36	161	662	3.36
1.6 Software and Databases	30	63	0.4	41	316	1.6
1.7 Visual and Graphic Arts	133	1,809	11.4	252	1,150	5.83
1.8. Advertising Services	124	910	5.73	120	1,524	7.73
1.9 Copyright collecting societies	1	56	0.35	1	3	0.02
<b>2. Interdependent Copyright Industries</b>	<b>1,481</b>	<b>9,694</b>	<b>31.65</b>	<b>2,546</b>	<b>15,584</b>	<b>38.02</b>
2.1 Television sets, radios, recorders and similar equipment	321	1,951	20.12	329	3,158	20.26
2.2 Computers and equipment	282	1,234	12.73	468	1,436	9.21
2.3 Musical Instruments	132	1,101	11.36	243	3,037	19.49
2.4 Photographic and cinematographic instruments	687	5,019	51.77	1,393	7,020	45.04
2.5 Blank recording material	11	116	1.19	24	139	0.89
2.6 Paper	48	275	2.83	89	795	5.1
<b>3. Partial Copyright Industries</b>	<b>512</b>	<b>3,825</b>	<b>12.49</b>	<b>624</b>	<b>3,960</b>	<b>9.66</b>
3.1 Garments, textiles and shoes	277	2,010	52.55	221	2,059	51.99
3.2 Jewelry and coins	76	547	14.3	133	362	9.13
3.3 Other handicrafts	3	27	0.71	5	34	0.87
3.4 Furniture	89	683	17.84	168	753	19.01
3.5 Household goods, porcelain and glass items	6	38	1	3	32	0.8
3.6 Tapestry paper and carpets	0	1	0.03	0	9	0.22
3.7 Toys and games	25	173	4.53	35	198	5.01



**Table 15: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

3.8 Architecture, Engineering and Land Surveying	35	325	8.49	54	494	12.48
3.10 Interior design	1	20	0.51	4	15	0.39
3.11 Museums	1	2	0.04	2	4	0.09
<b>4. Non-Dedicated Support Industries</b>	<b>200</b>	<b>1,241</b>	<b>4.05</b>	<b>378</b>	<b>1,732</b>	<b>4.23</b>
4.1 Whole and Retail Trade in general	125	914	73.63	300	835	48.2
4.2 Transportation in general	72	315	25.37	68	701	40.45
4.3 Telephony and Internet	2	12	1	9	197	11.35

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory

#### 4.3.3.2 Core Copyright Industries

Of the subcategories that make up the core copyright industries, the activities related to press and publishing are the most prominent, employing 7,300 people in 2002 and 7,841 in 2006; this sector comprises activities related to publication of newspapers, magazines and periodic publications; activities of news agencies; editions of books, booklets and other publications; activities of printing; services related to printing; retail sale of materials, books and newspapers; and activities of libraries and archives.

The activity which showed the highest participation, both in 2002 and 2006, was printing and books; this activity comprised more than 200 enterprises, which contributed about 32% of core copyright industry employments within the national territory in both years, as shown in Table 16.

The subcategory of press and publishing, together with the subcategory of music, theater and opera productions, produced in 2006 more than 63% of the employments of the core industries, as shown in the above-mentioned chart.

In 2006, the outstanding subcategory was that of radio and television, which increased its participation from 14% in 2002 to about 16% in 2006. The reason for this, according to the Census of Population and Housing of the General Comptroller's Office of the Republic, which is carried out every 10 years, is that 77% of houses have access to television sets and to television programs, which represents a high percentage of incidence of this communication means at a national level. Similarly, the subcategory of advertising services generated not less than 1,500 employments, strengthening its participation from 5.7% in 2002 to 7.7% in 2006.

The performance in the music, theater and opera productions subcategory is notable, for it represented in 2002 only 9.5% of the total employment generated by the core industries in 2002; however, in 2006, it represented 23.3%, mainly due to the emergence of more than 300 enterprises devoted to the sale of furniture and domestic appliances, used in the production of both music and theater activities.

The subcategories with lower performance in terms of employment generation included software and databases, which contributed 1.6% of the employment generated by the core industries in 2006. Here, we have to take into account that Panama is not a software-producing country; most software is imported from the United States, Mexico, Spain, Singapore, etc., and databases are made in each company or institution.

**Table 16: Nominal and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>		<b>1,563</b>	<b>15,867</b>	<b>100</b>	<b>2,17</b>	<b>19,714</b>	<b>100</b>
<b>1. 1. Press and publications</b>		<b>735</b>	<b>7,300</b>	<b>46.01</b>	<b>840</b>	<b>7,841</b>	<b>39.77</b>
7499	Other managerial activities, n.e.c. (Photocopies, collection, decoration)	84	655	8.97	263	1,476	18.82
2212	Publication of newspapers, magazines and periodic publications.	13	59	0.81	19	403	5.14
9220	Activities of news agencies	2	6	0.08	1	7	0.09
2211	Publication of books, booklets, scores and other publications.	4	17	0.23	4	13	0.17
2219	Other publication works, graphic arts.	32	156	2.14	49	229	2.92
2221	Printing activities, dutigrafía, notebooks	206	2,273	31.14	208	2,487	31.72
2222	Service activities related to printing and bookbinding	3	77	1.05	4	34	0.43
51392	Wholesale of books, newspapers, magazines and stationery.	29	605	8.28	44	845	10.77
52391	Retail sale of office material and equipment	243	2,857	39.13	187	1,990	25.38
52392	Retail sale of books, newspapers, magazines and stationery.	118	594	8.14	58	352	4.49
9231	Library activities and archives	1	3	0.04	3	6	0.08
<b>1. 2. Music, theater and opera production</b>		<b>156</b>	<b>1,513</b>	<b>9.54</b>	<b>549</b>	<b>4,603</b>	<b>23.35</b>
9214	Theatrical and musical activities and other artistic activities	8	80	5.29	13	58	1.26
9249	Other entertaining activities (parks, cockpits, moving discos)	6	111	7.3	14	66	1.43

**Table 16: Final and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama (continued)**

	2213	Editions of recorded materials	1	3	0.2	2	7	0.15
	2230	Reproduction of recorded materials	1	3	0.2	-	-	0
	52331	Retail sale of furniture and domestic appliances	9	27	1.78	327	3,153	68.5
	52333	Retail sale of musical instruments, image and sound reproducers and related items, except for photographic equipment	92	824	54.43	112	860	18.69
	52339	Retail sale of domestic appliances, equipment and devices, n.e.c., household	39	466	30.8	81	459	9.97
<b>1.3 Cinematographic films and videos</b>			<b>26</b>	<b>353</b>	<b>2.22</b>	<b>34</b>	<b>554</b>	<b>2.81</b>
	9211	Production and distribution of films and videos	6	258	73.09	18	92	16.61
	9212	Exhibition of films and videos	20	95	26.91	16	462	83.39
<b>1.4 Radio and television</b>			<b>190</b>	<b>2,220</b>	<b>13.99</b>	<b>172</b>	<b>3,063</b>	<b>15.54</b>
	9213	Telecommunications	89	882	39.73	123	1,335	43.59
	6420	Telecommunications	101	1,338	60.27	49	1,728	56.41
<b>1.5 Photography</b>			<b>168</b>	<b>1,664</b>	<b>10.36</b>	<b>161</b>	<b>662</b>	<b>3.36</b>
	7494	Photography activities	100	780	47.45	107	426	64.4
	52393	Retail sale of photographic, optical and precision material and equipment	68	864	52.55	54	236	35.6
<b>1.6 Software and Databases</b>			<b>30</b>	<b>63</b>	<b>0.4</b>	<b>41</b>	<b>316</b>	<b>1.6</b>
	7240	Activities related with databases	1	3	4.76	4	109	34.55
	7230	Data processing	29	60	95.24	37	207	65.45
<b>1.7 Visual and Graphic Arts</b>			<b>133</b>	<b>1,809</b>	<b>11.4</b>	<b>252</b>	<b>1,150</b>	<b>5.83</b>
	7499	Other managerial activities, n.e.c.(Photocopies, collection, decoration)	105	1,435	79.33	224	776	67.48
	52399	Retail sale at specialized stores n.e.c.	28	374	20.67	28	374	32.52

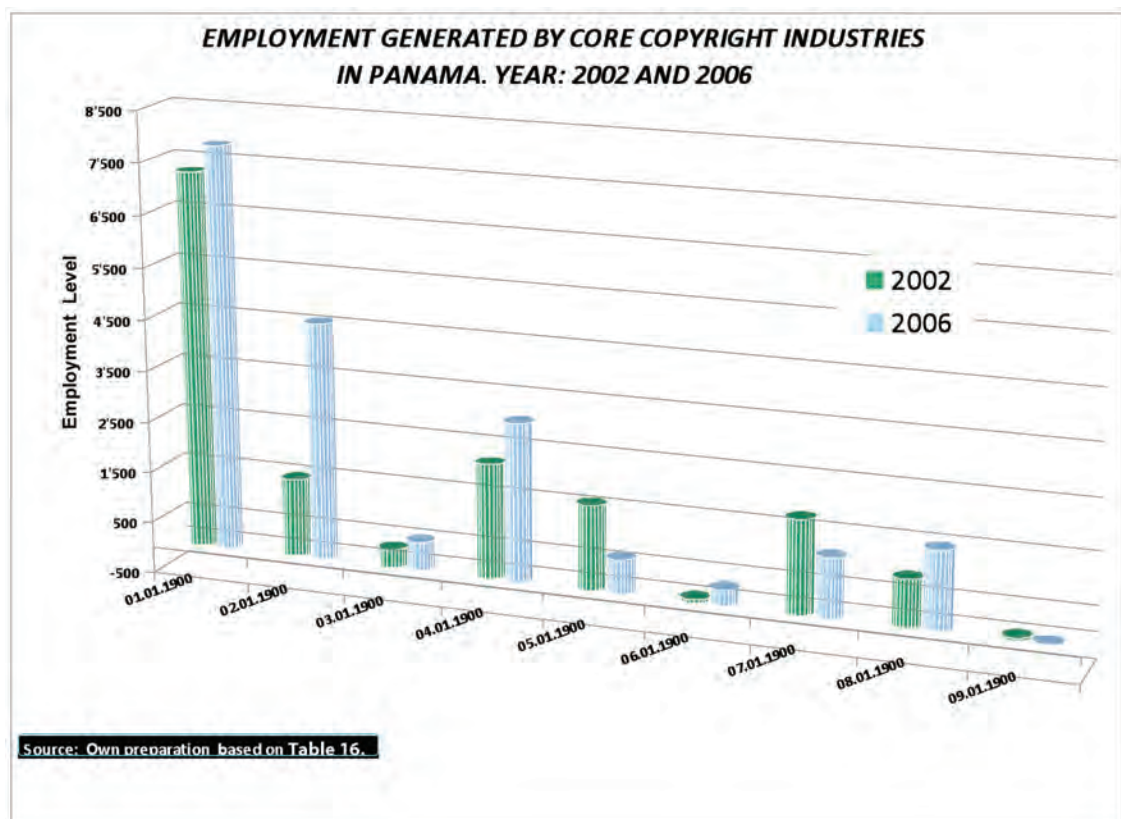
**Table 16:** Final and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama (continued)

<b>1.8. Advertising Services</b>		<b>124</b>	<b>910</b>	<b>5.73</b>	<b>120</b>	<b>1,524</b>	<b>7.73</b>
7430	Advertisement	124	910	100	120	1,524	100
<b>1.9 Copyright collecting societies</b>		<b>1</b>	<b>56</b>	<b>0.35</b>	<b>1</b>	<b>3</b>	<b>0.02</b>
9112	Activities of professional organizations	1	56	100	1	3	100

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

Interestingly, one of the activities which declined between 2002 and 2006 was visual and graphic arts and photography; although in 2002 fewer enterprises (133) existed than in 2006 (252), this category generated more employments in 2002 (1,809) than in 2006 (1,150). The decline in the number of employments is due mainly to the size of said enterprises; for example, in 2006, four enterprises which generated between 151 and more than 200 employments did not report operations, while enterprises generating between 1 and 10 employments increased.

**Figure 5:** Employment Generated by Core Copyright Industries in Panama



#### 4.3.3.3 Interdependent Copyright Industries

Within the subcategories that make up the interdependent industries, the activities linked to photographic and cinematographic instruments can be emphasized; in 2002, they contributed about 51.8% of the employment generated by the interdependent industries, and in 2006 their contribution had increased to 72.41%, going from 5,019 employments in 2002 to 7,020 in 2006. This subcategory comprises activities such as manufacturing of optical instruments and photographic equipment, wholesale of specialized stores, and leasing of several kinds of machinery and equipment. See Table 17 and its corresponding Graphic 06.

A similar performance is observed for the subcategories of television sets, radios, players and similar equipment and musical instruments, which in 2006 contributed 3,158 and 3,037 employments, respectively. Combined, the subcategories of photographic instruments and television sets and musical instruments stand for more than 63.9% of the employments generated by the interdependent industries.

Other activities are noteworthy within the interdependent industries category, such as leasing of computers and equipment, which in 2002 comprised 282 enterprises generating 1,234 employments, and in 2006 had increased to 1,436 employments. This is explained by the proliferation of cybercafés, computer centers used by the public, as barely one in ten Panamanians owns a computer, a fact that determined the leasing of this equipment.

**Table 17: Nominal and Percentage Value of the Contribution of the Interdependent Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>TOTAL</b>		<b>1,481</b>	<b>9,694</b>	<b>100</b>	<b>2,522</b>	<b>15,445</b>	<b>100</b>
<b>2.1 Television sets, radios, players and similar equipment</b>		<b>321</b>	<b>1,951</b>	<b>20.12</b>	<b>329</b>	<b>3,158</b>	<b>32.57</b>
3230	Manufacturing and repair of radio receptors and television sets and related products to the consumer, electronics	11	68	3.49	2	5	0.26
52331	Retail sale of furniture and domestic appliances	310	1,883	96.51	327	3,153	161.63
<b>2.2 Computers and equipment</b>		<b>282</b>	<b>1,234</b>	<b>12.73</b>	<b>468</b>	<b>1,436</b>	<b>14.81</b>
7123	Office machines and equipment rental (including computers)	282	1,234	100	468	1,436	116.38
<b>2.3 Musical Instruments</b>		<b>132</b>	<b>1,101</b>	<b>11.36</b>	<b>243</b>	<b>3,037</b>	<b>31.33</b>
52333	Retail sale of musical instruments, image and sound reproducers and related items, except for photographic equipment	3	54	4.9	73	466	42.33

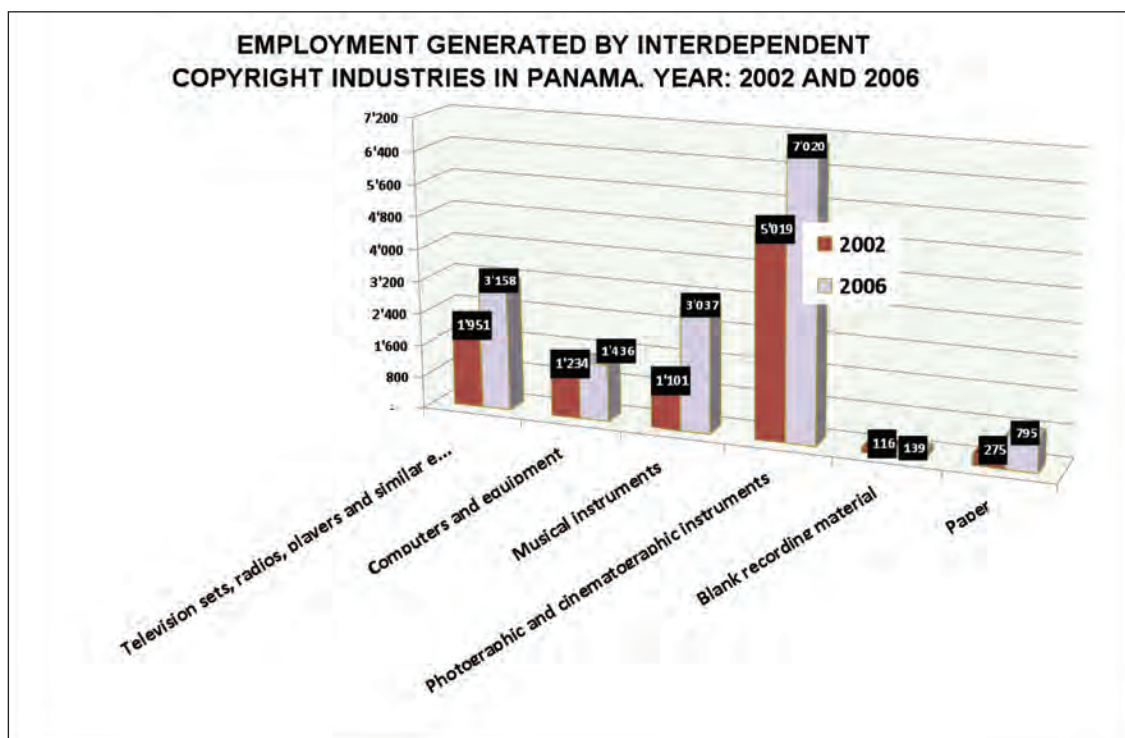


**Table 17: Nominal and Percentage Value of the Contribution of the Interdependent Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

51399	Wholesale of personal items and several products for the consumer, n.e.c.	129	1,047	95.1	170	2,571	233.51
<b>2.4 Photographic and cinematographic instruments</b>		<b>687</b>	<b>5,019</b>	<b>51.77</b>	<b>1,393</b>	<b>7,020</b>	<b>72.41</b>
3320	Manufacturing of optical instruments and photographic equipment	5	20	0.21	11	108	1.11
52399	Retail sale at specialized stores n.e.c.	671	4,741	48.9	1,366	6,710	69.22
7129	Other kind of machines and equipment rental n.e.c.	11	258	2.66	16	202	2.08
<b>2.5 Blank recording material</b>		<b>11</b>	<b>116</b>	<b>1.19</b>	<b>24</b>	<b>139</b>	<b>1.43</b>
2429	Manufacturing of other chemical products, n.e.c.; Pyrotechnical	11	116	100	24	139	120.35
<b>2.6 Paper</b>		<b>48</b>	<b>275</b>	<b>2.83</b>	<b>89</b>	<b>795</b>	<b>8.2</b>
5149	Wholesale of other intermediate products, wastes and remains, sale of plastic	42	249	90.53	85	442	161.02
2101	Manufacturing of paper pulp, paper and cardboard	6	26	9.47	4	353	128.6

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 6: Employment Generated by Interdependent Copyright Industries in Panama**



In the interdependent industries, the manufacturing of television sets and radio receivers, recorders, sound and video players and connected products provides for only an average of 0.05% of the employments generated by this category of industries for the full term; the same happens in segments devoted to the manufacturing of photographic and cinematographic devices and recording material, the contribution of which reaches 1.1%.

#### 4.3.3.4 Partial Copyright Industries

About 64.8% of the employments generated by the partial copyright industries are generated by the subcategory of garments, textiles and shoes, closely followed by the subcategory of architecture, engineering and land surveying, which contributed 8.5% of employments in this category in 2002 and 9.2% in 2006 (Table 18). In connection with the activity of handicrafts and manufacturing of glass, wood and metal products, it is important to mention that Panama, as of 2002, has had a special regime in intellectual property regarding the collective rights of the indigenous population for the protection and safeguarding of its cultural identity and its traditional knowledge<sup>16</sup>.

On the other hand, the contribution to employment of activities such as museums and preservation of historic sites, which was low (0.001) in 2002, did not show significant increases in 2006. It contributed 0.1% of the employment generated by the partial copyright industries, registering only 4 employments (see Figure 7).

#### 4.3.3.5 Non-Dedicated Support Industries

Lastly, between 2002 and 2006, the non-dedicated support industries, according to the Business Directory, increased their participation in the total employment generated by copyright-based industries from 4.1% to 4.2%. This can mainly be explained by the subcategory of transportation in general, which in 2002 contributed about 315 employments and in 2006 contributed 701 employments.

<sup>16</sup>Official Gazette of the Republic of Panama, No. 24,083 of June 27<sup>th</sup>, 2000, which enacts Law No. 20 of June 26<sup>th</sup>, 2000, regulated by Executive Decree No. 12 of March 20<sup>th</sup>, 2001.

New communication technologies have changed preferences and demands; this fact is demonstrated by telecommunication activities, which increased participation in employment from 0.01% to 0.5%, resulting in 185 new employments being generated by 2006, as shown in Table 19 and Figure 8.

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>TOTAL</b>		<b>512</b>	<b>3,824</b>	<b>100.00</b>	<b>723</b>	<b>5,352</b>	<b>100.00</b>
<b>3.1 Garments, textiles and shoes</b>		<b>276.5</b>	<b>2,010.1</b>	<b>52.57</b>	<b>324</b>	<b>3,466</b>	<b>64.76</b>
1721	Manufacturing of items made with textile materials, except for garments, cushions, pillows and bags	4.3	17.8	0.88	2	7	0.35
51311	Wholesale of textile products	2.0	8.5	0.42	1	42	2.02
51312	Wholesale of garments and accessories, except for shoes	9.5	136.0	6.77	5	142	6.90
51313	Wholesale of shoes	3.8	13.8	0.68	2	4	0.18
51319	Wholesale of textile products, garments and shoes, n.e.c.	2.5	11.3	0.56	2	26	1.26
51321	Retail sale of textile products	8.0	47.8	2.38	13	50	2.43
51322	Retail sale of garments and accessories, except for shoes	177.3	1,322.4	65.79	133	1,265	61.44
51323	Retail sale of shoes	44.0	270.8	13.47	40	337	16.36
51324	Retail sale of leather items	7.8	50.1	2.49	8	30	1.46
51325	Retail sale of textile (fabrics)	17.5	131.9	6.56	16	157	7.62
51329	Retail sale of textile products, garments and shoes, leather items, n.c.p., boutique	100.3	820.8	40.83	103	1,407	68.32
<b>3.2 Jewelry and coins</b>		<b>75.9</b>	<b>547.2</b>	<b>14.31</b>	<b>133</b>	<b>362</b>	<b>6.76</b>
51393	Wholesale of watches and jewelry products	3.3	15.9	2.91	50	12	3.44
51394	Retail sale of watches and jewelry products and novelty jewelry	69.9	523.2	95.61	80	325	89.80
3691	Manufacturing of jewelry and related items.	2.7	8.1	1.48	3	24	6.76

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

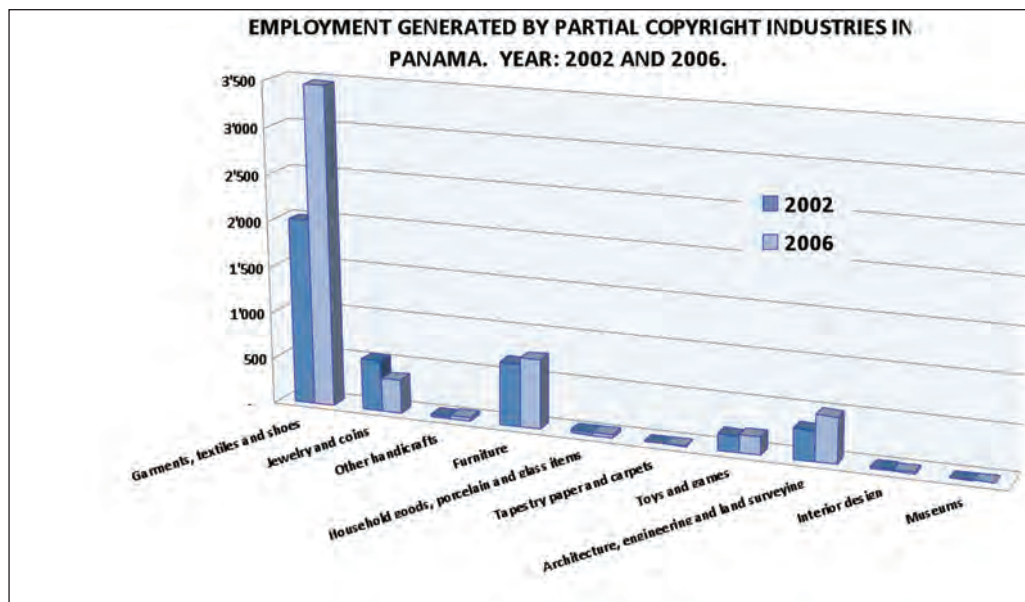
<b>3.3 Other handicrafts</b>		<b>3.2</b>	<b>27.0</b>	<b>0.71</b>	<b>5</b>	<b>34</b>	<b>0.64</b>
9199	Activities of other associations n.e.c. club, support to communal services	3.2	27.0	100.00	5	34	100.00
<b>3.4 Furniture</b>		<b>89.0</b>	<b>682.5</b>	<b>17.85</b>	<b>168</b>	<b>753</b>	<b>14.07</b>
3611	Manufacturing of wood furniture, tapestry	89.0	682.5	100.00	168	753	100.00
<b>3.5 Household goods, porcelain and glass items</b>		<b>6.3</b>	<b>38.3</b>	<b>1.00</b>	<b>3</b>	<b>32</b>	<b>0.59</b>
2610	Manufacturing of glass and glass products	0.5	2.0	5.23	1	24	74.13
2029	Manufacturing of other wood products; manufacturing of cork and straw products and materials able to be interlaced	0.5	2.3	5.88	1	3	10.09
2899	Manufacturing of other products made of metal, n.c.p., turnery, wires	5.2	33.6	87.72	1	5	15.38
173	Manufacturing of fabric, knitting, and crochet articles	0.2	0.5	1.18	0	0	0.39
<b>3.6 Tapestry paper and carpets</b>		<b>0.2</b>	<b>1.0</b>	<b>0.03</b>	<b>0</b>	<b>9</b>	<b>0.16</b>
2109	Manufacturing of other paper articles and cardboard	0.2	1.0	100.00	0	9	100.00
<b>3.7 Toys and games</b>		<b>24.8</b>	<b>173.4</b>	<b>4.53</b>	<b>35</b>	<b>198</b>	<b>3.71</b>
3694	Manufacturing of toys and games	1.2	5.6	3.23	0	12	5.95
52395	Retail sale of sport items (bicycles)	23.6	167.8	96.77	35	187	94.05

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Cctivity in the Republic of Panama (continued)**

<b>3.8 Architecture, engineering and land surveying</b>			<b>34.8</b>	<b>324.9</b>	<b>8.50</b>	<b>54</b>	<b>494</b>	<b>9.24</b>
	7421	Activities of architecture and engineering and related services of technical assessment.	34.8	324.9	100.00	54	494	100.00
<b>3.10 Interior design</b>			<b>1.1</b>	<b>19.6</b>	<b>0.51</b>	<b>4</b>	<b>15</b>	<b>0.29</b>
	7499	Other managerial activities, n.e.c. (Photocopies, collection, decoration)	1.1	19.6	100.00	4	15	100.00
<b>3.11 Museums</b>			<b>0.5</b>	<b>1.5</b>	<b>0.04</b>	<b>2</b>	<b>4</b>	<b>0.07</b>
	9232	Activities of museums and preservation of historical sites and buildings	0.5	1.5	100.00	2	4	100.00

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 7: Employment Generated by Partial Copyright Industries in Panama**



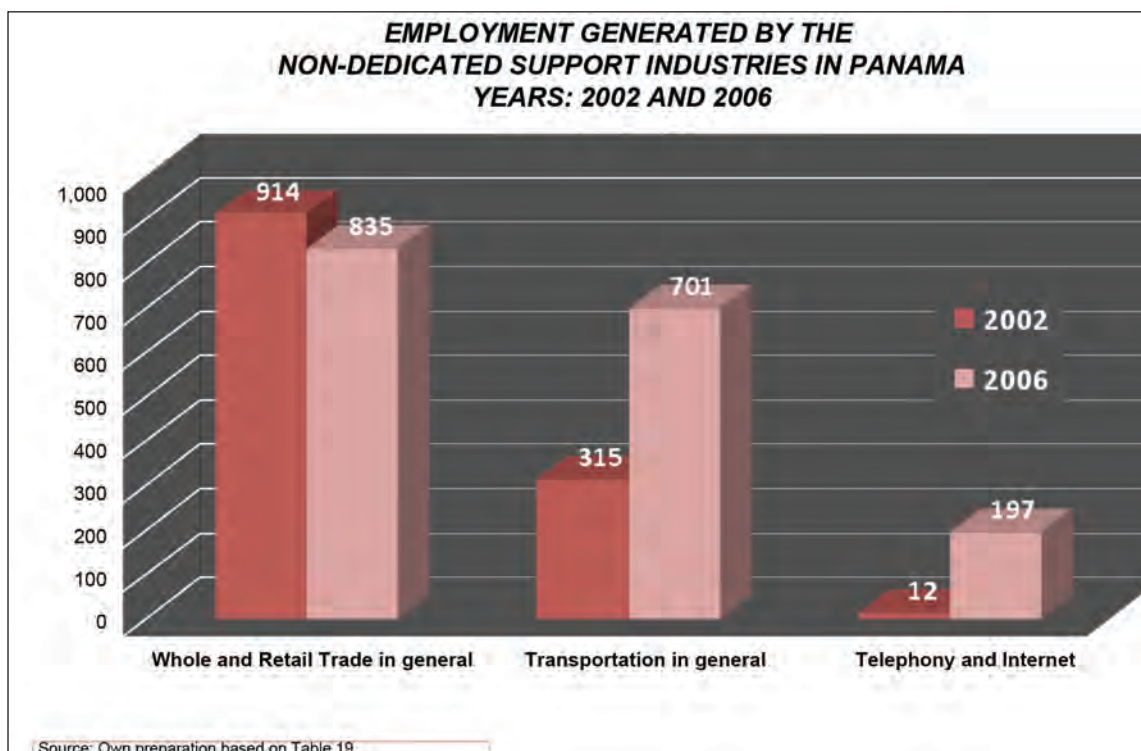
**Table 19: Nominal and Percentage Value of the Contribution of the Non-dedicated Support Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>		<b>199.51</b>	<b>1241.13</b>	<b>100</b>	<b>378.14</b>	<b>1732.485</b>	<b>100.00</b>
<b>4.1 General wholesale and retail trade</b>		<b>125</b>	<b>914</b>	<b>2.98</b>	<b>300</b>	<b>835</b>	<b>2.04</b>
51101	Import and/or export agencies, commissioners	4	12	1.33	5	65	7.84
51900	Wholesale of other products	1	9	0.97	3	33	3.94
52111	Retail sale of groceries	102	737	80.66	268	675	80.83
52520	Retail sale at sale stalls and markets	19	156	17.05	24	62	7.38
<b>4.2 Transportation in general</b>		<b>72</b>	<b>315</b>	<b>1.03</b>	<b>68</b>	<b>701</b>	<b>1.71</b>
6010	Railway transportation	0	0	0.10	0	0	0.02
602	Other kind of regular passenger transportation by land	23	132	41.99	30	299	42.69
630	Activities of other transportation agencies; custom brokers and transport inspectors	46	166	52.84	34	350	49.93
6411	National post mail activities	0	0	0.05	0	0	0.04
6412	Post mail activities other than national post mail activities, courier	3	16	5.03	4	51	7.33
<b>4.3 Telephony and Internet</b>		<b>2</b>	<b>12</b>	<b>0.04</b>	<b>9</b>	<b>197</b>	<b>0.48</b>
6420	Telecommunications	2	12	100.00	9	197	100.00

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.



**Figure 8: Employment Generated by the Non-dedicated Support Industries in Panama**



#### 4.3.4 Contribution of the Copyright-Based Industries to the Total Employment of Panama

Regarding the employment generated by the copyright-based industries as a proportion of the total employment of the country, it is necessary to point out that some data relating to the employment generated by the copyright-based industries were assessed based on the growth rate of industries, in accordance with each category and the different terms, 2002 and 2006. Based upon this, the participation of the copyright-based industries in the total employment at national level is analyzed from two approaches: according to the population status, and according to the industry category.

##### 4.3.4.1 According to the Population Status

As mentioned before, in the case of the total employment at national level, there is complete information available. Once the estimates of the copyright-based industries had been obtained, we could observe that the participation of the copyright-based industries in the national employment was 2.92% in 2002 and 3.17% in 2006 – an increase of 0.25% in 4 years, as shown in Table 20.

The contribution of the copyright-based industries to employment among the total EAP is slightly lower; when considering the EAP, as opposed to the employed EAP, the participation drops to 2.51% in 2002 and to 2.90% in 2006.

**Table 20: Contribution of the Copyright-based Industries in the Economically Active Population in the Republic, according to Population's Condition**

Indicator	2002	2006
Population of 15-year-olds and older	1,949,717	2,260,342
Economically Active Population (EAP)	1,221,914	1,415,080
Employed EAP	1,049,525	1,294,937
Unemployed EAP	172,389	122,799
Unemployment Rate	14.1%	8.7%
Employed population at Copyright-based industries	30,627	40,990
Contribution of the EAP	2.51%	2.90%
Contribution of the Employed EAP	2.92%	3.17%

Source: Own Preparation based on data provided by the Continuous Home Poll of the General Comptroller's Office of the Republic.

Despite increasing slightly, the copyright-based industries stayed at practically the same level, as the total number of Panamanians in employment has increased at a greater pace than the population employed by the copyright-based industries. This can be explained mainly by the fact that this industry does not pick up intensive labor work, due to the fact that there is a tendency to use more capital factors than human resources in the copyright-based industries, evidenced by the fact that more than 80% of these enterprises generated between one and four employments.

#### 4.3.4.2 According to Industry Category

In 2006, the core copyright industries comprised 48.09% of the copyright-based industries' total contribution of 3.17% in the EAP, representing a contribution by the core industries of 1.52% to the employed EAP. This implied that activities such as press and publishing, music, theater and opera productions, cinematographic films and videos, radio and television, photography, software and databases, visual and graphic arts, advertising services, and copyright collecting societies were the most significant activities within the copyright-based industries, as they made the most significant contribution to the national EAP. This data is shown in Table 21.

While the participation of interdependent industries in 2006 was 38.02%, the production of television sets and radios, computers, photographic and cinematographic instruments, blank recording material, and paper generated 15,445 employments out of a total employed EAP of 1,294,937.

The individual performance of each of the industry categories showed a fairly good contribution in general terms, with the exception of the non-dedicated support industries, which increased their participation only slightly, from 0.12% in 2002 to 0.13% in 2006, mainly because in Panama this category just includes transportation activities in general, and telephony and the Internet, while the other activities, related to facilitating the diffusion, distribution or sale of copyright-protected works, such as libraries, were carried out with public funding.

**Table 21: Participation of the Copyright-based Industries in Total Employment in the Republic of Panama, according to Category of Industry.**

Indicator	2002			2006		
	Population	Participation in total employment	Copyright Based Industries Participation	Population	Participation in total employment	Copyright Based Industries Participation
Employed Economically Active Population	1,049,525	100.00	–	1,294,937	100.00	–
Population Employed by Copyright-Based Industries	30,627	2.92	100.00	40,990	3.17	100.00
Core Copyright Industries	15,867	1.51	51.81	19,714	1.52	48.09
Interdependent Copyright Industries	9,694	0.92	61.09	15,584	1.20	79.05
Partial Copyright Industries	3,825	0.36	39.46	3,960	0.31	25.41
Non-Dedicated Support Industries	1,241	0.12	32.44	1,732	0.13	43.75

Source: Own Preparation based on data provided by the Continuous Household Survey 2002 – 2006 of the General Comptroller's Office of the Republic.

#### 4.4 VALUE ADDED GENERATED BY THE COPYRIGHT-BASED INDUSTRIES

The years 2002 and 2006 have been used by this study as periods of reference for measuring the value added. The value added in gross terms is represented, in accordance with WIPO, by the difference between values of gross products and values of inputs of other industries or intermediate consumption and represents a contribution measure to the GDP (gross domestic product) of a single product, industry or sector.

In this way, when the so-called GDP is conceptualized, we are referring to the sum of market values of final goods which are produced during a determined term, generally of one year, by resources owned by the country.

The value added calculated for the aforementioned years represents to each of the activities hereby mentioned the effort, capital, work, and technology of the producer units, which, when properly combined, generate such value added.

##### 4.4.1 Methodology Used

###### 4.4.1.1 Definition of the Copyright-Based Industries

The Business and Service Directories corresponding to 2002 and 2006 were utilized to identify the industries categorized in accordance with WIPO (2000), obtaining the copyright-based industries which carried out productive activities in Panama. As mentioned in section 2.3, the adjustment factor has only been applied for those activities with respect to which there were statistical data.

###### 4.4.1.2 Information Sources

The information on value added in the case of Panama comes from only one source. The statistics of macroeconomic accounts are centralized and carried out by the General Office of Statistics and Census, currently the National Institute of Statistics and Census<sup>17</sup>, through its Department of Economic Studies, National Income Section.

<sup>17</sup>The National Institute of Statistics and Census (INEC, for its Spanish acronym) was created by means of Law 10 of January 22<sup>nd</sup>, 2009, to replace the General Office of Statistics and Census of the General Comptroller's Office of the Republic.

#### **4.4.1.3 Limitations of the Information for Estimating the Value Added**

All matters regarding the calculation of the gross value added (GDP) are carried out by the National Income Section. It is limited by the fact that the Business Directory does not currently request information on the production value or on the intermediate consumption; therefore, this information is not entirely appropriate for calculation of the value added of the copyright-based industries.

In consultation with Tilcia Chu, Esq., Director of the National Income Section, and Dimas Quiel, Esq. Director of Statistics and Census of the General Comptroller's Office of the Republic, we were informed that the National Income Section does not calculate in a specific way the value added to the copyright activities at disaggregation levels as it appears in the WIPO list (4 and 5 digits ISIC). Some activities appear at a 3-digit ISIC level mixed with other components. For that reason, it was requested by the technical body of the National Income Section to work in the disaggregation of activities as much as possible, resulting in the subsequent charts. Because of that, the estimations herein considered shall be taken as approximations of the values which would be obtained at the proper disaggregation levels. The technical body tried to avoid double counting in those activities susceptible to such double counting.

#### **4.4.1.4 Methodology Utilized to Estimate the Approximated Value Added**

The technical body of the National Income Section of the General Office of Statistics and Census reviewed the copyright-related economic activities for which it had information. Some of these activities were included at a 3-digit ISIC level and it was possible to separate them at a 4-digit level and in a few cases at a 5-digit level; therefore, the value added is elaborated for these activities based on the methodologies already mentioned.

The value added calculation at those levels of activities faced many limitations, as the information is usually available at highly aggregated levels (2 and 3 digits ISIC). In the future, field information will need to be obtained at a higher disaggregation level in order to obtain the required results for a greater number of economic activities. For such purposes, the Annual Business Survey shall be utilized.

The methodology used for the calculation of the copyright activities is similar to that used for the calculation of the value added of other activities in Panama. In Panama, the value added (GDP) is calculated on the basis of the methodology used by the National Income Section of the General Office of Statistics and Census. The following methodologies are used:

- a. The sum of the gross value added of all resident production units (institutional or industries), plus taxes, minus subsidies on products not included in the production estimation.
- b. The sum of the final use of goods and services (all uses, except intermediate consumption), measured at purchase prices, minus the value of the imports of goods and services.
- c. The sum of the primary incomes distributed into the resident production units. The net domestic product (NDP) is obtained by subtracting the consumption of fixed capital from the GDP.

For example, in the case of judicial activities (7411), a weighted index of quantum is elaborated from the main indicators and with this quantum the gross production value (GPV) of the base year is extrapolated; to this gross production value, the coefficient IC/GPV of the base year is applied to obtain the intermediate consumption (IC) and the value added by difference.

In the case of the value added (VA) for the copyright-based industries, the total value added results from the sum of each of the components or categories considered in this study (core, interdependent, partial, and non-dedicated support industries). In turn, the value added of each category results from the sum of the activities considered within each of them.

#### **4.4.2 Value Added Generated by the Copyright-Based Industries**

The calculation of the contribution made by the copyright-based industries to the gross domestic product (GDP) is the ratio between the VA of the copyright-based industries and the GDP of the country, both measured in thousands of US dollars at 1996 prices. The information comes from the statistical data of the Panamanian National Accounts, elaborated by the National Income Section of the General Office of Statistics and Census of the Comptroller's Office of the Republic.

As previously noted, in Panama, the value added is not calculated in a specific way for the copyright-based industries; therefore a proxy<sup>18</sup> is estimated. Based on the available information, this study has made a first attempt to estimate the contribution made by the copyright-based industries to value added in Panama.

The contribution of the copyright-based industries to the GDP for the years under consideration, 2002 and 2006, has been measured in thousands of United States dollars at 1996 prices. It is expected that the participation of these industries will increase over the next few years, as long as new industries are incorporated into the market.

In the Panamanian case, the copyright-based industries represent a significant contribution to the GDP of about 6.4% in 2006 (see Table 22). This means a positive economic contribution, because of the impact on employment and foreign trade. The core industries make the most significant contribution of the four categories suggested by WIPO, as shown in graphic 09.

**Table 22: Contribution of the Copyright-based Industries to the Gross Domestic Product in Panama, according to Category of Industry**

Category of Industries	YEARS	
	2002	2006
<b>Total</b>	<b>812,057.30</b>	<b>967,697.10</b>
Core Copyright Industries	708,049.70	823,477.90
Interdependent Copyright Industries	9,650.00	8,400.00
Partial Copyright Industries	6,595.60	7,662.70
Non-Dedicated Support Industries	87,762.00	128,156.50
GDP – PANAMA	11,691,100	15,238,600
<b>PERCENTAGE CONTRIBUTION TO THE GDP</b>	<b>6.95</b>	<b>6.35</b>

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic.

The weighting factors obtained by the research team to measure the contributions to employment made by each of the four copyright-based industry categories were applied to the estimated value added corresponding to each category. The underlying information for establishing weighting factors, as well as the weighting factors themselves, appear in detail on page 241 of this report.

As mentioned previously, for the interdependent, partial, and non-dedicated support industries, measurements of the value added at the disaggregation level required to carry out this study did not exist. Thus, the measurements had to be elaborated from the available information at a 3-digit and 2-digit ISIC level. In this way, the disaggregation required for the main copyright activities in Panama was achieved for the three above-mentioned categories.

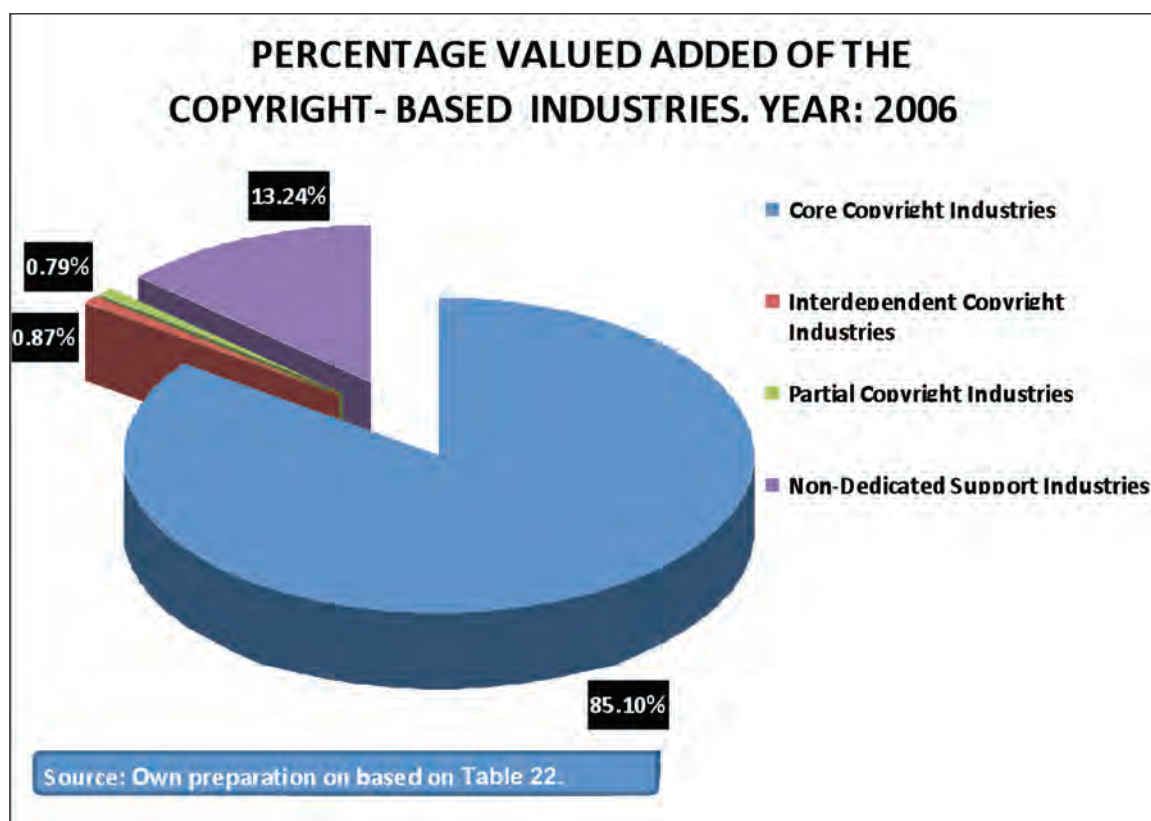
Some of the copyright activities in the interdependent, partial, and non-dedicated support industries could not be analyzed, because the information did not exist directly in Panama. These figures come from the estimates carried out for each activity by the team of the National Income Section of the General Office of Statistics and Census, which, as mentioned before, is in charge of elaborating the National Accounts of the country.

The core industries contributed about 85.1% of the value added generated by these industries, followed by the non-dedicated support industries, with 13.2%; the interdependent and partial industries made lower contributions. Within the core industries, some outstanding activities are worth mentioning in terms of their contributions; these can be seen in Table 23.

<sup>18</sup>Maddala, (1985), *Econometrics*. McGraw-Hill Publishing House, Mexico. According to Maddala, it frequently occurs that the variables measured are replacements of the variables which in fact are intended to be measured. It is very common to call the variables measured "proxy" variables, which are an approximation of the real variable.



**Figure 9: Percentage Valued Added of the Copyright-based Industries**



In 2006, activities of press and publishing (28.4%) were the activities with the greatest contribution to the value added, followed by activities related to software and databases (9.1%) and activities related to radio and television (8.2%), as shown in Table 23.

Other notable contributions were made by activities related to cinematographic films and videos (7.2%), visual and graphic arts (6.9%), advertising services (6.7%), and music, theater and opera productions (6.4%). The copyright collecting societies made a contribution of 7.2% in 2006.

**Table 23: Value Added of the Core Copyright Industries according to Main Activity**

Category and activity of Industries	YEARS			
	2002	%	2006	%
<b>Total</b>	<b>812,057</b>	<b>100.00</b>	<b>967,697</b>	<b>100.00</b>
<b>Core Copyright Industries</b>	<b>708,050</b>	<b>87.19</b>	<b>823,478</b>	<b>85.10</b>
1.1 Press and publications	247,782	30.51	275,293	28.45
1.2 Music, theater and opera productions	57,236	7.05	62,459	6.45
1.3 Cinematographic films and videos	58,229	7.17	69,404	7.17
1.4 Radio and television	69,817	8.60	79,683	8.23
1.5 Photography	60,000	7.39	47,950	4.96
1.6 Informatic programs and databases	57,196	7.04	87,530	9.05
1.7 Visual and graphic arts	57,391	7.07	66,990	6.92
1.8 Advertising services	46,717	5.75	64,765	6.69
1.9 Copyright collecting societies	53,683	6.61	69,404	7.17

Source: Own preparation based on data furnished by General Office of Statistics and Census, National Income Section and Panama in figures



Tables 27 and 28, which can be found in the annexes, show the details of the calculation of the contribution to the value added of the four categories. In general terms, we can assert that copyright activities as a whole significantly contribute to the gross domestic product.

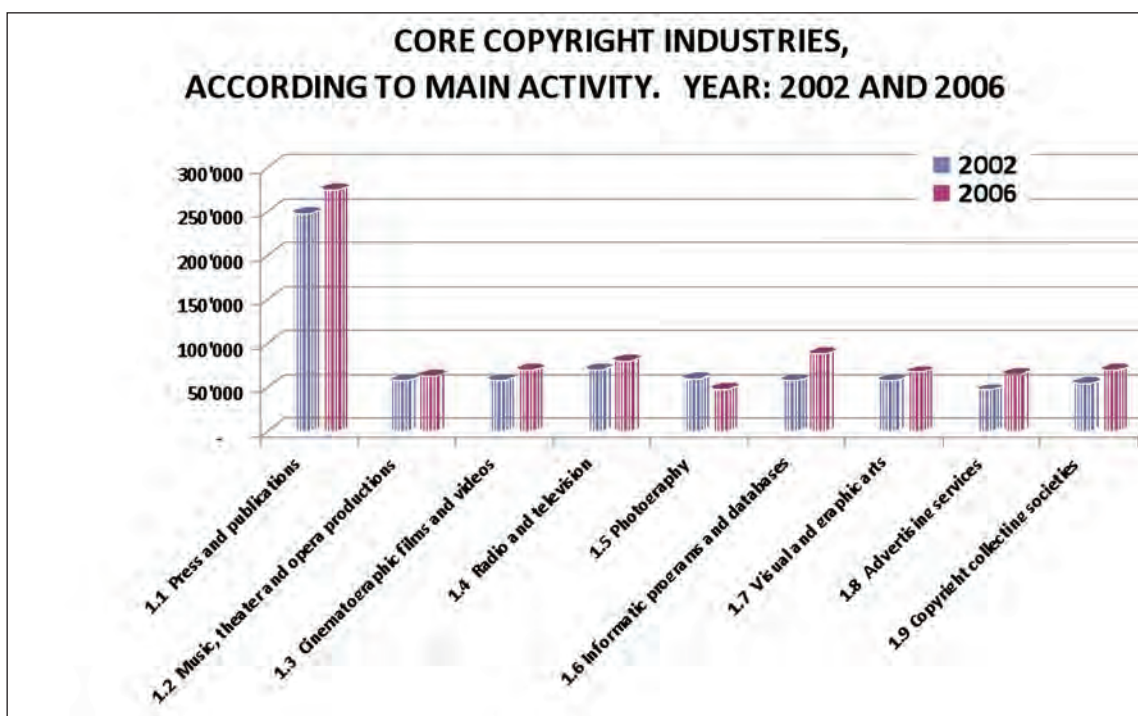
The participation of the copyright-based industries as components of the GDP for the years considered is about 6.6%, which, compared with other sectors of the economy, could be considered as important. Moreover, the comparison with the analyzed countries to elaborate the study shows that the participation of the copyright-based industries in the case of Panama is of an acceptable level.

## 4.5 Foreign Trade Generated by the Copyright-Based Industries

### 4.5.1 Methodology Used

#### 4.5.1.1 Information Sources

**Figure 10: Core Copyright Industries according to Main Activity**



To measure the foreign trade balance in Panama we mainly used information from the General Comptroller's Office of the Republic of Panama. The General Comptroller's Office of the Republic of Panama is the official institution in charge of elaborating the statistical reports available to the Panamanian society. Other information sources used were elaborated by the Ministry of Commerce and Industries of Panama. Said Ministry provided us with annual reports of the work they carry out, but not figures of the performance of imports and exports in Panama. In addition, we used information provided by the Economic Commission for Latin America and the Caribbean (ECLAC), specifically the "International Statistical Classification included in the ECLAC Foreign Trade Data Bank for Latin America and the Caribbean, Revision 1".<sup>19</sup>

Through exchanges between the General Comptroller's Office of the Republic of Panama and the School of Economics of the University of Panama, figures corresponding to the required terms to be used in this research (2002 and 2006) were obtained.

<sup>19</sup>ECLAC Statistical Workbooks: [www.eclac.cl/deype/cuadernos36/esp/index.htm](http://www.eclac.cl/deype/cuadernos36/esp/index.htm).

#### 4.5.1.2 Handling of Information

By checking the figures obtained at the General Comptroller's Office of the Republic of Panama we found that the Tariff Code used by the Office did not match the ISIC proposed by the WIPO guidelines. For this reason, we located the ECLAC documentation using the "International Statistical Classification included in the ECLAC Foreign Trade Data Bank for Latin America and the Caribbean #36".

In this document, some of the correspondence items between the ISIC and the Tariff Code are identified. However, the Tariff Code of Panama, for the most part, does not classify the items in the same way as ECLAC. In Panama, the register is made by larger sectors and, within each sector, some items are located which are considered to be included in accordance with some nomenclatures already defined. In view of the above-mentioned facts, the ECLAC statistical report was not very useful for this work.

Therefore, in order to identify the copyright-based industries in relation to foreign trade, the documents of the Tariff Code of Panama and the ISIC proposed by WIPO were used in accordance with the following procedure:

- The foreign trade statistical data were selected for years 2002 and 2006, respectively.
- The data were classified in two large items: exports and imports.
- The Tariff Code of Panama was revised chapter by chapter to locate those accounts which matched the ISIC proposed by the research.
- This classification was carried out with exports and imports.
- A tabulation by categories was made, as, in many cases, there are crossings of tariff items which had to be located in other chapters of the Tariff Code of Panama.
- Only the items which effectively matched the copyright criteria were identified.
- In the whole Tariff Code of Panama, there are no classifications of said international transactions which match the requests. We are referring to services related to travels, royalties and license rights, private services or other services.
- It is not possible to identify those classifications recognized at international level for any kind of research of this nature. We mean the classifications identified by the World Bank or the World Trade Organization and much less the classifications proposed by the International Monetary Fund.
- Once the items for the research had been identified, the research team applied weighting factors to the values for each category. The two main categories did not have weighting factors applied to them. An average of 0.23 and 0.045 was applied to the third and fourth categories, respectively.

#### 4.5.2 General Aspects of Foreign Trade in Panama

The performance of foreign trade in Panama has for a long time been connected with the performance of the service sector, which contributes about 70% to the GDP, while the other two sectors together contribute about 30%.

#### 4.5.3 Foreign Trade Generated by the Copyright-Based Industries

From the statistical data of the records selected for this research, we observe that, of the four categories into which copyright-based industries were divided, and for the selected terms, the largest category was that of the core copyright industries. The contribution of this category of industries was 37.1% of imports in 2002 and 34.5% in 2006. This sector contributed 28.6% of the exports in 2002 and 40.1% in 2006. Within the interdependent industries, the activity which generates most of the exports is paper (5,149).

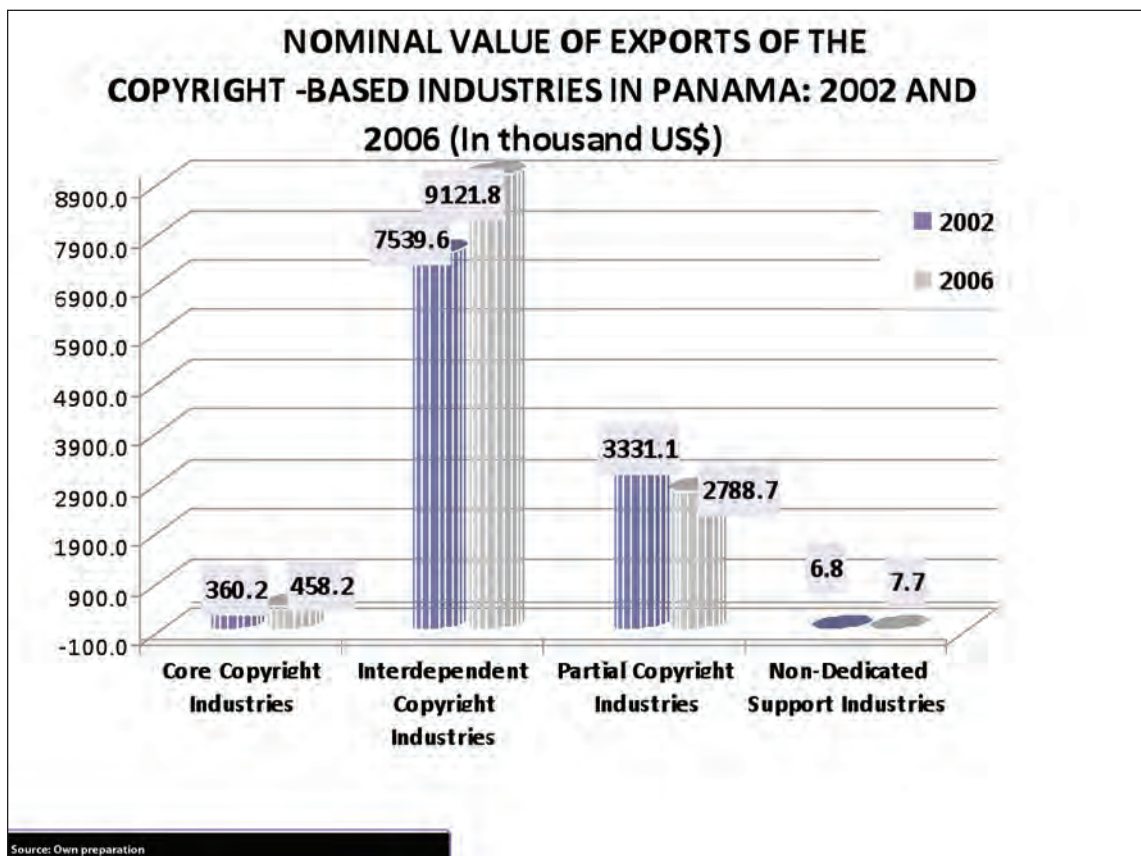
With regard to the contribution to foreign trade, exports and imports totaled US\$ 443,816,625 in 2002; in 2006 this amount was US\$ 504,167,164. We also observed that net exports (XN) in 2002 showed a negative balance of US\$ -406,982,491; in 2006 this figure amounted to US\$ -462,086,946. If we compare both terms, we observe an increase of 13.54% between 2002 and 2006 (see Table 24 and Figures 11 and 12).

**Table 24: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
<b>Total</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>425,399,558</b>	<b>483,127,055</b>
Core Copyright Industries	360,215	458,206	113,757,444	181,663,994
Interdependent Copyright Industries	7,539,607	9,121,838	173,008,924	185,055,234
Partial Copyright Industries	3,331,053	2,788,749	63,778,966	85,218,990
Non Dedicated Support Industries	6,800	7,683	15,602,744	27,797,597

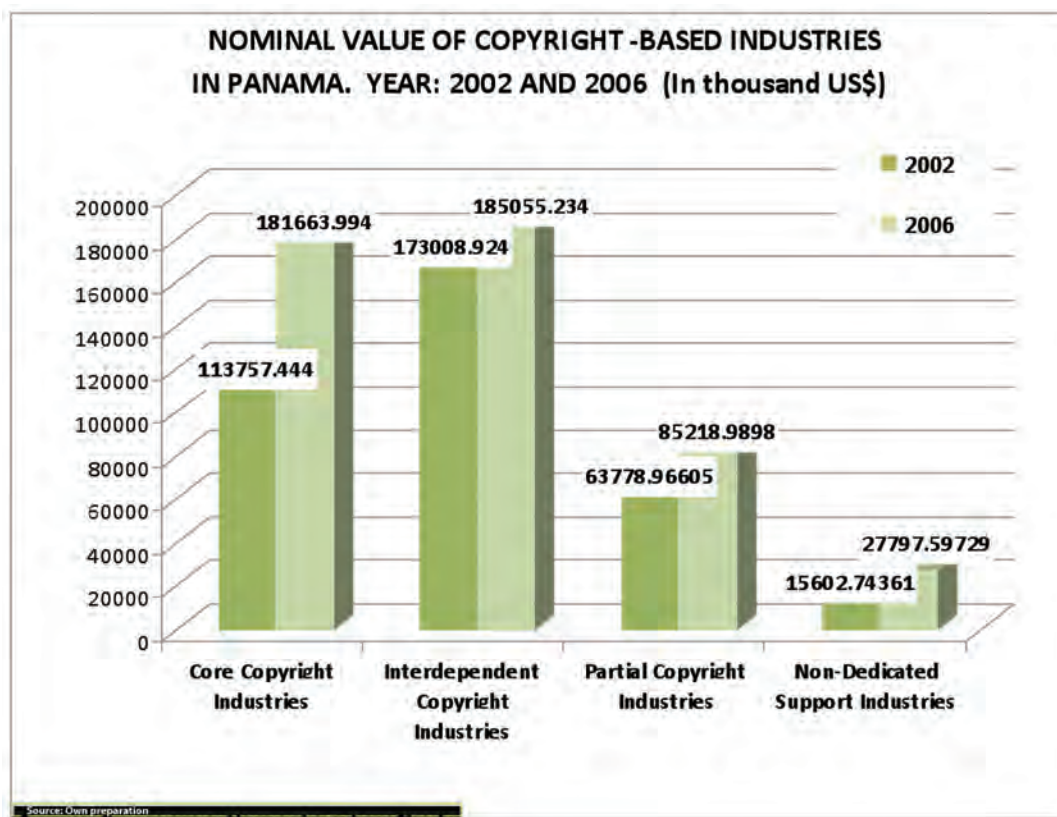
Source: Own preparation based on data provided by the General Comptroller's Office of the Republic.

**Figure 11: Nominal Value of Exports of the Copyright-based Industries in Panama**





**Figure 12: Nominal Value of Copyright Interdependent Industries Imports in Panama**



#### 4.5.3.1 Core Copyright Industries

The core copyright industries in Panama have had a slight impact on exports for many decades. Chart 16 shows that the exports of this category of industries totaled US\$ 360,215 in 2002, while imports totaled US\$ 113,757,444, an enormous difference. Within the core industries, the subcategories which had some kind of operating capacity in 2002 were press and publishing, and music, theater and opera productions. The core industries showed an increase of 27.2% between 2002 and 2006. The press and publishing subcategories increased by 39.7%, while the music, theater and opera productions subcategory decreased by 8.2%, with exports for this subcategory falling from US\$ 93,705 in 2002 to US\$ 85,998 in 2006.

In 2002, the imports of the subcategory of visual and graphic arts totaled US\$ 73,624,383, which represented 70.0% of the total imports for this category. In 2006, the participation of this subcategory amounted to US\$ 127,222,158, an increase of 72.8%.

#### 4.5.3.2 Interdependent Copyright Industries

In 2002, the exports of the interdependent copyright industries totaled US\$ 7,539,607; item 5149 (paper) was the most dynamic subcategory. These exports increased by 21.0% between 2002 and 2006. In 2002, no other subcategories or itemized activities experienced any kind of export operations. Between 2002 and 2006, the imports for this category of industries increased by US\$ 12,146,310. It is important to mention that, within this category, the subcategories of musical instruments and paper both had a good dynamic (see Table 25).



**Table 25: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
<b>Total</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>425,399,558</b>	<b>483,127,055</b>
<b>1. Core Copyright Industries</b>	<b>360,215</b>	<b>458,206</b>	<b>113,757,444</b>	<b>181,663,994</b>
1.1 Press and publications	266,510	372,208	37,750,094	48,225,211
1.2 Music, theater and opera productions	93,705	85,998	2,382,967	6,216,625
1.3 Cinematographic films and videos	–	–	–	–
1.4 Radio and television	–	–	–	–
1.5 Photography	–	–	–	–
1.6 Informatic programs and databases	–	–	–	–
1.7 Visual and graphic arts	–	–	73,624,383	127,222,158
1.8 Advertising services	–	–	–	–
1.9 Copyright collecting societies	–	–	–	–
<b>2. Interdependent Copyright Industries</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>173,008,924</b>	<b>185,055,234</b>
2.1 TVs, radios, players	–	–	–	–
2.2 Computers and equipment	–	–	–	–
2.3 Musical instruments	–	–	159,201,907	166,850,939
2.4 Photographic and cinematographic	–	–	2,860	175
2.5 Blank recording material	–	–	44,040	53,702
2.6 Paper	7,539,607	9,121,838	13,760,117	18,150,418
<b>3. Partial Copyright Industries</b>	<b>3,331,053</b>	<b>2,788,749</b>	<b>63,778,966</b>	<b>85,218,990</b>
3.1 Garments, textiles and shoes	2,701,835	1,698,265	38,671,934	49,494,537
3.2 Jewelry	405,424	386,622	6,344,266	7,764,764
3.3 Other handicrafts	–	–	–	–
3.4 Furniture	–	–	1,357,671	2,070,416
3.5 Ehousehold goods, porcelain and glass items	223,793	703,863	5,048,652	7,737,663
3.6 Tapestry paper and carpets	–	–	–	–
3.7 Toys and games	–	–	13,372,515	19,539,933
3.8 Architecture, engineering and Land Surveying	–	–	5,367	89,974
3.10 Interior design	–	–	–	–
3.11 Museums	–	–	336,233	592,120
<b>4. Non-Dedicated Support Industries</b>	<b>6,800</b>	<b>7,683</b>	<b>15,602,744</b>	<b>27,797,597</b>
4.1 Wholesale and retail trade in general	–	–	–	–
4.2 Transportation in general	7,286	8,232	14,404,140	26,410,883
4.3 Telephony and Internet	–	–	2,313,085	3,372,257

Source: Own preparation based on data provided by the General Comptroller's Office of the Republic.

#### 4.5.3.3 *Partial Copyright Industries*

The largest subcategory of this group of industries was garments, textiles and shoes. In 2002, exports for this subcategory totaled US\$ 5,403,670; in 2006, this figure had increased to US\$ 3,396,530. Exports for this category as a whole fell by 37.1%. Imports had an opposite performance. In 2002, imports for this category of industries totaled US\$ 105,494,997, a figure that reached US\$ 139,125,585 in 2006 (31.9% more than in 2002). The subcategory with the greatest contribution to imports in both 2002 and 2006 was, again, garments, textiles and shoes (see Table 25.).

#### 4.5.3.4 *Non-Dedicated Support Industries*

This sector contributed to exports during 2002 and 2006 as follows: In 2002, exports in the general transportation activity totaled US\$ 6,558. In 2006, such exports totaled US\$ 7,409 (13.0% more than in 2002). In connection with imports, we can observe that in 2002 imports totaled US\$ 15,045,503; in 2006, this figure had risen to US\$ 26,804,826. It is important to highlight that, within this sector, transportation activities in general made the most significant contribution, which rose from US\$ 14,404,140 in 2002 to US\$ 26,410,883 in 2006, an increase of 83.4%, as shown in Chart 17.

### 4.6 Comparison of Results at an International Level

Many studies have been carried out worldwide to determine the contributions of the copyright-based industries to the respective country's economic activity. As these studies have used the methodology suggested by WIPO, the results of this study can easily be compared with those of other countries. Such uniformity in the methodology used is very important, as it enables comparisons to be made with other countries of the region, or others worldwide, in terms of the copyright-based industries' contribution to selected indicators, such as GDP, employment, and foreign trade. The international comparison helps in raising the awareness among public and private institutions involved in copyright on the economic importance of this sector, which was not fully appreciated until recently.

Countries such as Colombia, Mexico, Singapore, Canada, the United States, Hungary, Australia, the Philippines, Latvia, Ukraine, Croatia, the Netherlands, and Jamaica, among others, with very few variations in the application of the WIPO methodology, have finished their studies on the contribution made by the copyright-based industries to their country's economy.

The main methodological variation among countries is that not all of them assign the same weighting factor or economic importance to the activities by the industries belonging to each industry category, as it depends on the specific chain value of the industries of each country. This meant that any of the studies to be compared with this research needed to be carefully checked in order to obtain the best possible comparison.

In general terms, previous studies have reached a common conclusion: a substantial growth in the contribution of this sector to the economic activity through the years, whereby the number of persons employed within this sector has increased, with corresponding contributions in the fiscal and social security fields. The main variables included to assess the studies which were carried out are the following: value added as a measure of the contribution to the GDP; employment as a percentage contribution to the national total; and foreign trade balance as a measure of the balance between exports and imports.

Among the main international studies mentioned above, it is important to mention the annual measurement studies of the contribution of the copyright-based industries to the gross domestic product carried out by the United States, which have allowed this country greater precision in measurement. In Panama, even though the copyright-based industries analyzed cannot be presented with as much precision as in the United States, the results found constitute an approximation which can be improved in later studies based on the experience acquired in this study.

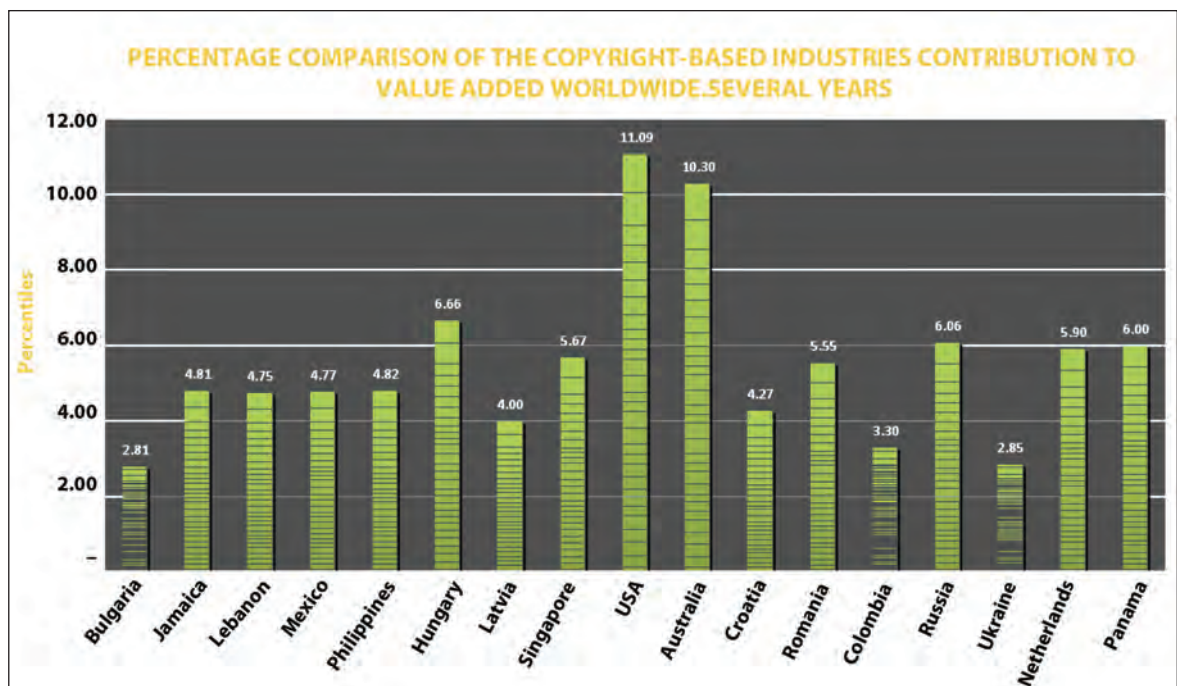
The results show that the contribution made by the copyright-based industries to the GDP in Panama in 2006 was 6.30%. This is larger than the contribution made by copyright-based industries in other countries of the region, such as Mexico (4.80%) and Colombia (3.40%). This shows good performance in terms of the contribution to the GDP. This could be considered a positive fact, since the regulation of copyright in Panama is still growing and developing as an industry, and has not yet been granted the importance reflected in its



contribution to the GDP and to employment generation. The core copyright industries made the greatest contribution to the GDP in Panama – 86% of the total contribution made by the copyright-based industries. The same category of industries contributed 33% in Mexico and 57% in Colombia. Such differences between countries mainly occur because of the chain value of the industries of each country.

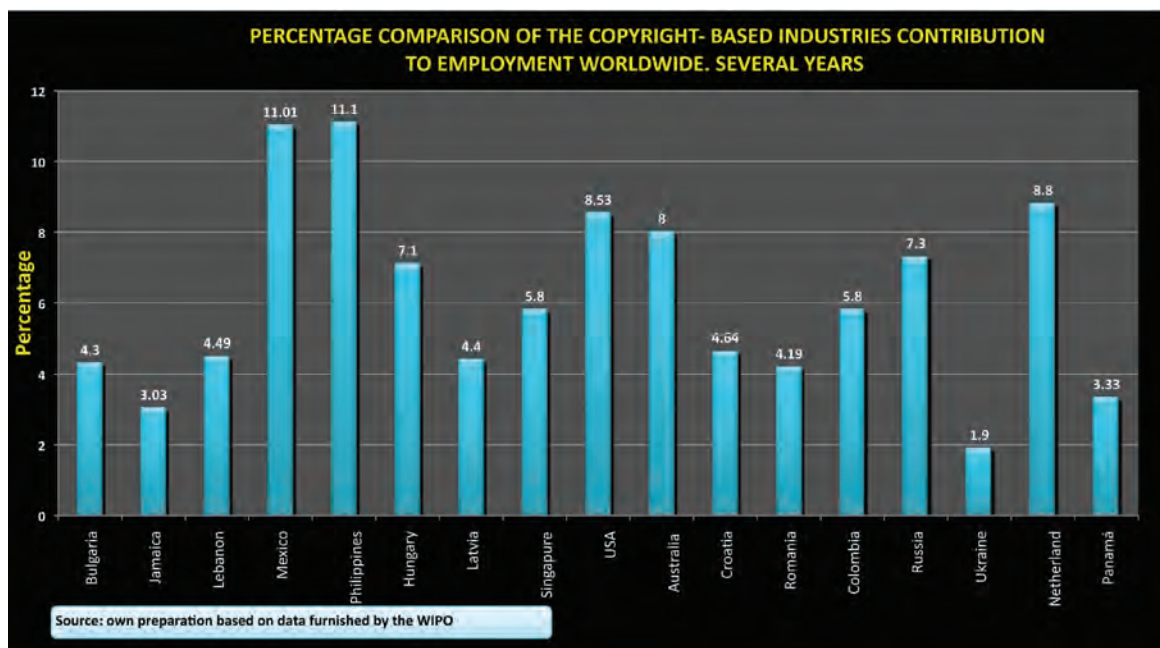
Finally, comparing the contribution to the GDP of countries worldwide which have carried out the study applying the WIPO methodology, we can observe that the contribution level to the GDP of such countries, regardless of their economic development, varies from 11.09% (the United States) to 2.80% (Bulgaria). The United States (11.09%) and Australia (10.30%) are the countries which show the greatest contribution levels. After them, we can find Hungary and Russia, with contributions of 6.60% and 6.10%, respectively. The average contribution to the GDP for all countries that have undertaken studies is 4.85%. In accordance with the method of value added used to calculate the contribution made by the copyright-based industries to the GDP in Panama, this figure was 6.29% in 2006, which places us above the regional and worldwide average. Figure 13 shows the performance of the contribution of the copyright-based industries in Panama compared with countries in the same region and other countries worldwide.

**Figure 13: Percentage Comparison of the Copyright-based Industries Contribution to Value Added Worldwide**



In terms of employment, the contribution of 3.17% by the copyright-based industries in Panama places us just above countries such as Jamaica (3.03%) and Ukraine (1.90%). However, it places us under the regional average of 6.10%. This indicates that the copyright-based industries in Panama are less intensive in terms of employment generation than those of the majority of countries studied in the same region. As mentioned previously, this could be a consequence of the fact that in Panama the participation of the copyright-based industries in the economic activity is mostly through the commerce of goods and services which are identified by a specific brand, and not by the creation of goods and services which allow significant levels of employment to be generated. The employment performance at a regional and a worldwide level can be observed in Figure 14.

**Figure 14: Percentage Comparison of the Copyright-based Industries Contribution to Employment Worldwide**



## 5. Conclusions and Recommendations for Further Studies

---

- The study shows that the economic contribution of the copyright-based industries is important to the Panamanian economy in terms of value added, employment and foreign trade.
- Regarding the value added, the average contribution made by the copyright-based industries to the gross domestic product is 6.65% (6.95% in 2002 and 6.35% in 2006).
- The copyright-based industries contributed 3.17% of the employment of the economically active population in 2006. By comparing this result with the value added contribution to the GDP, we can conclude that the copyright-based industries in Panama are not intensive in their use of labor. This is mainly due to the fact that the copyright-based industries in Panama are linked more with the use of brands than with the creation of goods and services. Nevertheless, their contribution to employment generation is significant, since in 2006 copyright-based industries generated 43,166 employments.
- Within the category of core copyright industries, press and publishing is the subcategory which contributed the most to the economic growth of Panama. This subcategory contributed about 40% of the employment and the value added of this category of industries to the gross domestic product.
- The foreign trade balance of the copyright-based industries in 2006 was a negative balance of US\$ 186,205,788, due to the fact that imports were superior to exports. Nevertheless, this had a positive effect on the internal Panamanian economy, as it generated a marginal value added as a consequence of the transformation required by some imported goods.
- We can observe a constant negative trade balance in copyrighted goods, which leads us to conclude that the greatest value added of this activity will continue in the industrialized countries. This is verified by the comparative analysis of the statistical data regarding the value added of the industry, where the United States and Australia show the greatest contributions to the GDP of 11.08% and 10.30%, respectively.
- Regarding the copyright factor, after evaluating the researches carried out by Mexico, Singapore, Canada, Hungary, Latvia, and Colombia, among others, we concluded that the factors which would best apply to the research in Panama were those factors applied by Colombia, due to the similarity of the socioeconomic context and the characteristics of the copyright-based industries in the two countries.
- Panama has a legal framework and public institutions to implement the copyright laws. The Copyright Interdisciplinary Commission was created by means of Law 23 of 1996 in order to coordinate the efforts of these institutions.
- The laws created since 1994 in all the copyright fields have been rigorously applied by the competent authorities. The efforts made by the Republic of Panama to strengthen intellectual property rights have improved their image, a fact that has promoted the economic activity linked to intellectual property.
- The study reveals that it is necessary to have a better disaggregation of the activities corresponding to copyright, as the current information sources do not allow that. This means that, taking into account the way in which the available information at the General Office of Statistics and Census, currently the National Institute of Statistics and Census, is currently recorded, information must be extended to meet the particular requirements of copyright activities.
- Currently, the Business Directory does not properly disaggregate the contribution of the industry according to economic activity related to copyright, as the majority of activities are coded at 3 and 4 digits; these should be extended to 5 or even 6 digits (ISIC).
- With the objective of improving the quality of information, it is currently required that the Business Directory includes within its information the production gross value and the intermediate consumption, or, failing that, information on salaries and benefits, for the purpose of obtaining a more appropriate way of calculating the value added.

- The information contained in this directory for the purposes of calculating the employment contribution to the economy must have a greater disaggregation regarding the ranks of employment levels shown on the databases, since the greater the disaggregation, the better the approximation of the assessment.
- Based upon the above-mentioned facts, it is required that the National Institute of Statistics and Census coordinates with the National Office of Copyright of the Ministry of Education in order to include in the research instrument which supports the database of the Business Directory the necessary information to measure the contribution of the copyright-based industries to the economy in relation to value added, employment, and foreign trade indicators. Thereby, it will be possible to obtain greater precision in the calculation of the economic impact of the copyright-based industries in Panama.

## 6. Bibliography

---

### A. Codes and Laws

- [1] Republic of Panama. Political Constitution of the Republic of Panama 1972. Amended by Amendatory Acts of 1978, by the Constitution Act 1983 and Legislative Acts No. 1 and No. 2 of 1994.
- [2] Republic of Panama. Administrative Code. Law No. 15 of August 8<sup>th</sup>, 1994, "By means of which Law on Copyright, Related Rights is approved and other provisions are set forth".
- [3] Republic of Panama. Administrative Code. Decree No. 261 of October 3<sup>rd</sup>, 1995, by means of which Law No. 15 of August 8<sup>th</sup>, 1994, on Copyright and Related Rights, is regulated.
- [4] Republic of Panama. Judicial Code of Panama.
- [5] Republic of Panama. Criminal Code of the Republic of Panama.
- [6] Republic of Panama. Civil Code.

### B. Laws

- [1] Universal Copyright Convention (Geneva, 1952), ratified by Panama by means of Law 35 of January 31<sup>st</sup>, 1962.
- [2] Universal Copyright Convention (as revised at Paris, 1971), ratified by Panama by means of Law 8 of October 24<sup>th</sup>, 1974.
- [3] International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome, 1961), ratified by Panama by means of Law 4 of November 9<sup>th</sup>, 1982.
- [4] International Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms (Geneva, 1971), ratified by Panama by means of Law 5 of November 8<sup>th</sup>, 1973.
- [5] Convention Relating to the Distribution of Program Carrying Signals Transmitted by Satellite (Brussels, 1974), ratified by Panama by means of Law 6 of November 9<sup>th</sup>, 1982.
- [6] Washington Convention on Copyright (1946), ratified by Panama by means of Law No. 5 of December 30<sup>th</sup>, 1982.
- [7] Bern Convention for the Protection of Literary and Artistic Works (Paris Text, 1971), ratified by Panama by means of Law No. 3, of January 3<sup>rd</sup>, 1996.
- [8] World Trade Organization's Agreement, ratified by Panama by means of Law 23 of July 15<sup>th</sup>, 1997, the annex of which (1C) contains the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS).
- [9] WIPO Copyright Treaty (TODAWCT), ratified by Panama by means of Law 92 of December 15<sup>th</sup>, 1998.
- [10] WIPO Performances and Phonograms Treaty (TOIEF/WPPT), ratified by Panama by means of Law 93 of December 15<sup>th</sup>, 1998.
- [11] Free Trade Agreement with the United States of America, ratified by Panama by means of Law 42 of 2007.



### C. Research Reports

- [1] Castañeda, Alberto; Cubillos, Rafael; Sarmiento Armando and Vallecilla, Jaime (2008), Colombia: "La Contribución Económica de las Industrias Protegidas por el Derecho de Autor y los Derechos Conexos en Colombia", WIPO.
- [2] WIPO (2006): National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. Creative Industries Series No. 1.
- [3] Antequera Parilli, Ricardo: "Aspectos adjetivos en el Convenio de Berna y en el Acuerdo sobre los ADPIC", 1998.
- [4] Medina Rangel: Copyright Mexican Federal Law in Official Gazette of the Federation, of December 24<sup>th</sup>, 1996, articles 11 and 13.
- [5] Moreno Samuel: Graduate thesis to opt for Postgraduate in Copyright: Los Andes University, Mérida, Bolivarian Republic of Venezuela, 2001.
- [6] Report of the National Office of Copyright of January 17<sup>th</sup>, 2008.
- [7] Republic of Panama, Ministry of Commerce and Industry. Report sent to the United States Embassy in Panama on February 1<sup>st</sup>, 2007. M. No. 161–2007. Ambassador Susan C. Schwab Office (January 1<sup>st</sup> to December 31<sup>st</sup>, 2007).

### D. Others

- [1] Gantchev, Dimiter (2003), Geneva: Guide to Determine the Economic Contribution of Copyright-related Industries, WIPO.
- [2] General Comptroller's Office of the Republic, General Office of Statistics and Census of Panama: Statistical Directory of Businesses and Premises, 2002 and 2006 final results.
- [3] General Comptroller's Office of the Republic, General Office of Statistics and Census, Economic Studies, National Income Section.
- [4] General Comptroller's Office of the Republic, General Office of Statistics and Census, Economic Situation: Foreign Trade Year Book, 2002 and 2006.
- [5] Ministry of Commerce and Industry. General Office of the Intellectual Property Registration. Guide to Applicants, Department of Patents and Inventions. Panama, 2006, p. 58.
- [6] Ministry of Commerce and Industry. General Office of the Intellectual Property Registration. Kuna Knowledge, Biodiversity and Intellectual Property. Panama, ARTICSA Publishing House. 2006. p. 32.
- [7] Ministry of Commerce and Industry. General Office of the Intellectual Property Registration. Law No. 35, Law of Industrial Property and Regulation. Panama, 2006, p. 133.
- [8] Morales, Távara and others. An Estimate of the Economic Contribution of Copyright-Based Industries in Peru. University of Panama, Research Center of the School of Economics. Panama, 2008. p. 148.
- [9] World Intellectual Property Organization (WIPO). National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. Creative Industries Series No. 1. 2006. p. 387.
- [10] World Intellectual Property Organization (WIPO). Guide on Surveying the Economic Contribution of the Copyright-Based Industries. 2003. p. 11.
- [11] World Intellectual Property Organization. National Studies on Assessing the Economic Contribution of the Copyright-Based Industries. Creative Industries. Series No. 2. p. 550.



## 7. ANNEXES

**Table 26: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Industries and categories	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>	<b>3,756</b>	<b>30,627</b>	<b>100</b>	<b>5,718</b>	<b>40.99</b>	<b>100</b>
<b>1. Core Copyright Industries</b>	<b>1,563</b>	<b>15,867</b>	<b>51.81</b>	<b>2,17</b>	<b>19,714</b>	<b>48.09</b>
1.1 Press and publications:	735	7,300	46.01	840	7,841	39.77
1.2 Music, theater production and opera:	156	1,513	9.54	549	4,603	23.35
1.3 Cinematographic films and videos	26	353	2.22	34	554	2.81
1.4 Radio and television	190	2,220	13.99	172	3,063	15.54
1.5 Photography	168	1,644	10.36	161	662	3.36
1.6 Software and Databases	30	63	0.4	41	316	1.6
1.7 Visual and Graphic Arts	133	1,809	11.4	252	1,150	5.83
1.8. Advertising Services	124	910	5.73	120	1,524	7.73
1.9 Copyright collecting societies	1	56	0.35	1	3	0.02
<b>2. Interdependent Copyright Industries</b>	<b>1,481</b>	<b>9,694</b>	<b>31.65</b>	<b>2,546</b>	<b>15,584</b>	<b>38.02</b>
2.1 Television sets, radios, recorders and similar equipment	321	1,951	20.12	329	3,158	20.26
2.2 Computers and equipment	282	1,234	12.73	468	1,436	9.21
2.3 Musical Instruments	132	1,101	11.36	243	3,037	19.49
2.4 Photographic and cinematographic instruments	687	5,019	51.77	1,393	7,020	45.04
2.5 Blank recording material	11	116	1.19	24	139	0.89
2.6 Paper	48	275	2.83	89	795	5.1
<b>3. Partial Copyright Industries</b>	<b>512</b>	<b>3,825</b>	<b>12.49</b>	<b>624</b>	<b>3,960</b>	<b>9.66</b>
3.1 Garments, textiles and shoes	277	2,010	52.55	221	2,059	51.99
3.2 Jewelry and coins	76	547	14.3	133	362	9.13
3.3 Other handicrafts	3	27	0.71	5	34	0.87
3.4 Furniture	89	683	17.84	168	753	19.01
3.5 Household goods, porcelain and glass items	6	38	1	3	32	0.8
3.6 Tapestry paper and carpets	0	1	0.03	0	9	0.22
3.7 Toys and games	25	173	4.53	35	198	5.01
3.8 Architecture, Engineering and Land Surveying	35	325	8.49	54	494	12.48
3.10 Interior design	1	20	0.51	4	15	0.39
3.11 Museums	1	2	0.04	2	4	0.09

**Table 26: Nominal and percentage value of the contribution of the copyright-based industries to total employment, according to category and economic activity in the republic of Panama (continued)**

<b>4. Non-Dedicated Support Industries</b>	<b>200</b>	<b>1,241</b>	<b>4.05</b>	<b>378</b>	<b>1,732</b>	<b>4.23</b>
4.1 Whole and Retail Trade in general	125	914	73.63	300	835	48.2
4.2 Transportation in general	72	315	25.37	68	701	40.45
4.3 Telephony and Internet	2	12	1	9	197	11.35

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory

**Table 27: Nominal and Adjusted Value According to Copyright Factor of the Contribution of Copyright-based Industries to Total Employment, Value Added and Foreign Trade according to Industry Category in the Republic of Panama**

Years 2002 and 2006. In US\$

Industry Categories	Employment				Value Added				Foreign Trade							
	Real		Adjusted		Real		Adjusted		Exports				Imports			
	2002	2006	2002	2006	2002	2006	2002	2006	Real	2002	2006	Adjusted	2002	2006	Adjusted	2002
<b>Total</b>	<b>71,433</b>	<b>91,270</b>	<b>30,627</b>	<b>40,990</b>	<b>2,797,521</b>	<b>3,884,247</b>	<b>812,057</b>	<b>967,697</b>	<b>24,680,167</b>	<b>31,903,746</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>938,411,199</b>	<b>1,401,682,039</b>	<b>425,399,558</b>	<b>483,127,055</b>
<b>1. Core Copyright Industries</b>	<b>15,867</b>	<b>19,714</b>	<b>15,867</b>	<b>19,714</b>	<b>708,050</b>	<b>823,478</b>	<b>708,050</b>	<b>823,478</b>	<b>360,215</b>	<b>458,206</b>	<b>360,215</b>	<b>458,206</b>	<b>113,757,444</b>	<b>181,663,994</b>	<b>113,757,444</b>	<b>181,663,994</b>
1.1 Press and publications	7,300	7,841	7,300	7,841	247,782	275,293	247,782	275,293	266,510	372,208	266,510	372,208	37,750,094	48,225,211	37,750,094	48,225,211
1.2 Music, theater and opera productions	1,513	4,603	1,513	4,603	57,236	62,459	57,236	62,459	93,705	85,998	93,705	85,998	2,382,967	6,216,625	2,382,967	6,216,625
1.3 Cinematographic films and videos	353	554	353	554	58,229	69,404	58,229	69,404	-	-	-	-	-	-	-	-
1.4 Radio and television	2,220	3,063	2,220	3,063	69,817	79,683	69,817	79,683	-	-	-	-	-	-	-	-
1.5 Photography	1,644	662	1,644	662	60,000	47,950	60,000	47,950	-	-	-	-	-	-	-	-
1.6 programs and data bases	63	316	63	316	57,196	87,530	57,196	87,530	-	-	-	-	-	-	-	-
1.7 Visual and graphic arts	1,809	1,150	1,809	1,150	57,391	66,990	57,391	66,990	-	-	-	-	73,624,383	127,222,158	73,624,383	127,222,158
1.8 Advertising services	910	1,524	910	1,524	46,717	64,765	46,717	64,765	-	-	-	-	-	-	-	-
1.9 Copyright collection societies.	56	3	56	3	53,683	69,404	53,683	69,404	-	-	-	-	-	-	-	-
<b>2. Interdependent Copyright Industries</b>	<b>9,694</b>	<b>15,445</b>	<b>9,694</b>	<b>15,584</b>	<b>9,650</b>	<b>8,400</b>	<b>9,650</b>	<b>8,400</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>173,008,924</b>	<b>185,055,234</b>	<b>173,008,924</b>	<b>185,055,234</b>
2.1 TVs, radios, players	1,951	3,158	1,951	3,158	-	-	-	-	-	-	-	-	-	-	-	-
2.2 Computers and equipment	1,234	1,436	1,234	1,436	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Musical instruments	1,101	3,037	1,101	3,037	-	-	-	-	-	-	-	-	159,201,907	166,850,939	159,201,907	166,850,939
2.4 Photographic and cinematographic	5,019	7,020	5,019	7,020	-	-	-	-	-	-	-	-	2,860	175	2,860	175
2.6 Blank recording material	116	139	116	139	-	-	-	-	-	-	-	-	44,040	53,702	44,040	53,702
2.6 Paper	275	795	275	795	9,650	8,400	9,650	8,400	7,539,607	9,121,838	7,539,607	9,121,838	13,760,117	18,150,418	13,760,117	18,150,418

**Table 28: Nominal and Adjusted Value according to Copyright Factor of the Copyright-based Industries Contribution to Total Employment, Value Added and Foreign Trade, according to Industry Category in Panama**

Year: 2002 and 2006.

Industry categories	Employment						Value Added						Foreign Trade					
	Real		Adjusted		Real		Adjusted		Real		Adjusted		Exports		Imports			
	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006		
<b>Total</b>	71,433	91,270	30,627	40,990	2,797,521	3,884,247	812,057	967,697	24,680,167	31,903,746	18,417,067	21,040,109	938,411,199	1,401,682,039	425,399,558	483,127,055		
<b>3. Partial Copyright Industries</b>	16,480	17,287	3,825	3,960	64,121	73,369	6,596	7,663	16,634,621	22,159,058	3,331,053	2,788,749	317,718,325	439,300,012	63,778,966	85,218,990		
3.1 Clothes, textiles and footwear	8,041	8,237	2,010	2,059	-	-	-	-	10,807,340	6,793,059	2,701,835	1,698,265	154,687,734	197,978,146	38,671,934	49,494,537		
3.2 Jewelry and coins	1,824	1,206	547	362	-	-	-	-	1,351,414	1,288,739	405,424	386,622	21,147,552	25,882,546	6,344,266	7,764,764		
3.3 Other crafts	675	860	27	34	-	-	-	-	-	-	-	-	-	-	-	-		
3.4 Furniture	3,413	3,765	683	753	-	-	-	-	-	-	-	-	6,788,353	10,352,082	1,357,671	2,070,416		
3.5 Household goods, porcelain and glass articles	766	634	38	32	3,850	3,800	193	190	-	-	223,793	703,863	100,973,043	154,753,252	5,048,652	7,737,663		
3.6 Wallpapers and carpets	51	435	1	9	-	-	-	-	-	-	-	-	-	-	-	-		
3.7 Toys and games	434	496	173	198	-	-	-	-	-	-	-	-	33,431,287	48,849,833	13,372,515	19,539,933		
3.8 Architecture, engineering and surveying	1,083	1,648	325	494	1,880	2,579	-	-	-	-	-	-	17,890	299,914	5,367	89,974		
3.10 Interior design	196	154	20	15	58,391	66,990	5,839	6,699	-	-	-	-	-	-	-	-		
3.11 Museums	-	8	2	4	-	-	-	-	-	-	-	-	672,466	1,184,239	336,233	592,120		
<b>4. Non-Dedicated Support Industries</b>	29,392	38,825	1,241	1,732	2,015,700	2,979,000	877,62	1,281,57	145,724	164,644	6800	7683	334,344,506	595,662,799	15,602,744	27,797,597		
4.1 Wholesale and retail trade in general	22,847	20,877	914	835	868,200	983,900	30,387	34,437	-	-	-	-	-	-	-	-		
4.2 Transportation in general	6,298	14,015	315	701	607,350	1,126,600	30,368	56,330	145,724	164,644	7286	8232	288,082,799	528,217,651	14,404,140	26,410,883		
4.3 Telephony and Internet	248	3,934	12	197	540,150	868,500	27,008	37,390	-	-	-	-	46,261,707	67,445,148	2,313,085	3,372,257		

(-) Non-available information

Source: Own preparation based on data furnished by the General Comptroller's Office of the Republic.

## SURVEY QUESTIONNAIRE TO COPYRIGHT ENTERPRISES

### *PART A: CHARACTERISTICS OF THE COMPANY*

Year of incorporation: \_\_\_\_\_

Number of years on copyright activities: \_\_\_\_\_

Main business activity: \_\_\_\_\_

Ownership (please, mark only one):

Totally local  Mostly local

Totally foreign  Mostly foreign

Name of the person to be contacted: \_\_\_\_\_ Telephone number: \_\_\_\_\_

#### *A. 1. Amount/Sales of the year (please circle one of the options) in accordance with the AMPYME classification:*

Up to B/.150,000 \_\_\_\_\_

From B/.150,001 to B/.1,000,000 \_\_\_\_\_

From B/.1,000,001 to B/.2,500,000 \_\_\_\_\_

More than B/.2,500,000 \_\_\_\_\_

#### *A. 2. Labor work (including Management)*

Number of full-time employees: \_\_\_\_\_ persons

Number of part-time employees: \_\_\_\_\_ persons

**PART B: ASSESSMENT OF COPYRIGHT ACTIVITIES OF THE COMPANY**

**B 1. How important is copyright in the daily operations of your company? (Please circle one of the options.)**

very significant  significant  hardly significant  insignificant

**B 2. Does your company pay or receive in any way payments for using intellectual property as royalties, patents or other payments of licences in the functioning of its business?**

Yes  No (go to question B5)

**B 3. On average, what percentage of the total annual expenses does your company assign to the payment of royalties, patents or other licence payments?**

\_\_\_\_\_

**B 4. In your opinion, what percentage of the amount generated by your company is attributable to copyright or creative activities?**

\_\_\_\_\_

**B 5. What percentage of the labor force in your company is related to creative activities? Creative activities include the creation of products/services and development. For example "a craft jeweler drawing the designs of jewels".**

Number of full-time employees: \_\_\_\_\_ persons

Number of part-time employees: \_\_\_\_\_ persons





# The Economic Contribution of Copyright-Based Industries in Slovenia

---

**PREPARED BY:**

Urša Chitrakar  
Ljubica Knežević Cvelbar  
Karmen Hren  
Mojca Marc  
Anže Podnar  
Peter Rebec  
Sonja Šlander Wostner

# Table of Contents

---

<b>Executive Summary</b>	<b>306</b>
<b>1. INTRODUCTION</b>	<b>308</b>
1.1 Background	308
1.2 Study objectives	308
1.3 Methodology	308
1.4 Research team	309
1.5 Structure of the study	309
<b>2. LEGAL FRAMEWORK</b>	<b>310</b>
2.1 A Brief History of Copyright Legislation in Slovenia	310
2.2 International and EU Copyright and Related Rights Legislation	311
2.3 Copyright and Related Rights Act	311
2.3.1 Subject of Protection	311
2.3.2 Author	312
2.3.3 Copyright (Types and Scope of Rights)	312
2.3.4 Transfer of Copyright	312
2.3.5 Limitations on Copyright	313
2.3.6 Term of Copyright Protection	313
2.3.7 Related Rights	313
2.4 Management and Enforcement of Copyright and Related Rights	314
2.4.1 Individual and Collective Management of Copyright and Related Rights	314
2.4.2 Measures of Legal Protection of Copyright and Related Rights	316
<b>3. ECONOMICS OF COPYRIGHT</b>	<b>318</b>
3.1 Characteristics of Intellectual Property and Copyright	318
3.2 Economic Functions of Copyright: Benefits and Costs	319
3.3 Copyright Effects in the National Economy	320
3.4 References for Chapter 3	322
<b>4. METHODOLOGY OF THE STUDY</b>	<b>323</b>
4.1 Identification and Classification of Industries	324
4.2 Data Collection	324
4.2.1 Output, Intermediate Consumption and Value Added	324
4.2.2 Employment	326
4.2.3 Foreign Trade	326
4.2.4 Supplementary Secondary Data	326
4.2.5 Copyright Factors and Primary Data	327
4.3 Data Analysis and Presentation	329
<b>5. ECONOMIC CONTRIBUTION OF THE COPYRIGHT-BASED INDUSTRIES</b>	<b>330</b>
5.1 Copyright-Based Industries in Slovenia	330
5.1.1 Overview	330
5.1.2 Distribution of Copyright-Based Industries	332
5.1.3 Industry Comparison	333
5.1.4 Foreign Trade	335

5.2	Core Copyright Industries	337
5.2.1	Overview	338
5.2.2	Output	338
5.2.3	Value Added	340
5.2.4	Employment	341
5.2.5	Productivity	343
5.2.6	Summary	343
5.3	Interdependent Copyright Industries	344
5.3.1	Overview	344
5.3.2	Output	345
5.3.3	Value added	346
5.3.4	Employment	347
5.3.5	Summary	348
5.4	Partial Copyright Industries	348
5.4.1	Overview	349
5.4.2	Output	349
5.4.3	Value added	350
5.4.4	Employment	351
5.4.5	Summary	352
5.5	Non-Dedicated Support Industries	352
5.5.1	Overview	352
5.5.2	Output	353
5.5.3	Value added	354
5.5.4	Employment	355
5.5.5	Summary	356
5.6	Comparison with Previous Studies	356
5.7	The Direct and Indirect Macroeconomic Effects of Copyright-Based Industries in Slovenia	358
5.7.1	Introduction with Methodology	358
5.7.2	Input-Output Analysis of the Macroeconomic Impact of Copyright-Based Industries in Slovenia	359
5.7.3	Sources used in Chapter 5.7	361
5.8	Developments in Selected Core Copyright-Based Industries	361
5.8.1	Press and Literature	362
5.8.2	Radio and Television	366
5.8.3	Film and Video	367
5.8.4	Music, Theatre Productions, Opera	369
5.8.5	Revenues	372
5.8.6	Copyright Awareness and Enforcement	373
	<b>6. CONCLUSIONS AND RECOMMENDATIONS</b>	<b>376</b>
	<b>Appendix</b>	<b>379</b>

## Tables

---

<b>Table 1:</b> Copyright Factors Adopted in the Slovenian Study	328
<b>Table 2:</b> Economic Contribution of Copyright-Based Industries in 2007	330
<b>Table 3:</b> Economic Contribution of Copyright-Based Industries in 2002	331
<b>Table 4:</b> Average Annual Real Growth Rates for Copyright-Based Industries in 2002 – 2007	332
<b>Table 5:</b> Foreign Trade of Copyright-Based Industries in 2007	335
<b>Table 6:</b> Foreign Trade of Copyright-Based Industries in 2002	336
<b>Table 7:</b> Detailed Output of Core Copyright Industries	339
<b>Table 8:</b> Detailed Value Added of Core Copyright Industries	340
<b>Table 9:</b> Detailed Employment of Core Copyright Industries	342
<b>Table 10:</b> Interdependent Industries' Detailed Output Structure in 2002 and 2007	345
<b>Table 11:</b> Interdependent Industries' Detailed Value Added Structure in 2002 and 2007	346
<b>Table 12:</b> Interdependent Industries' Detailed Employment Structure in 2002 and 2007	347
<b>Table 13:</b> Partial Industries' Detailed Output Structure in 2002 and 2007	349
<b>Table 14:</b> Partial Industries' Detailed Value Added Structure in 2002 and 2007	350
<b>Table 15:</b> Partial Industries' Detailed Employment Structure in 2002 and 2007	351
<b>Table 16:</b> Non-Dedicated Industries' Detailed Output Structure in 2002 and 2007	353
<b>Table 17:</b> Non-Dedicated Industries' Detailed Value Added Structure in 2002 and 2007	354
<b>Table 18:</b> Non-Dedicated Industries' Detailed Employment Structure in 2002 and 2007	355
<b>Table 19:</b> Total (Direct and Indirect) Macroeconomic Contribution of Copyright-Based Industries in Slovenia, 2007	359
<b>Table 20:</b> Number of book titles published in the period 2000-2007	363
<b>Table 21:</b> Press by frequency of publication, 1995-2007	365
<b>Table 22:</b> Activity of film and cinema industry, 2004 – 2007	368
<b>Table 23:</b> Activity of theatres by type of theatre	369
<b>Table 24:</b> Activity of orchestras and choirs, 2004-2007	371
<b>Table 25:</b> Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology	380
<b>Table 26:</b> Determination of the Copyright Factors – A Semi-Structured Questionnaire	389
<b>Table 27:</b> Total (input-output) employment effect of copyright-based industries in Slovenia in 2007, by sector	390



## Charts

---

<b>Chart 1:</b>	The Chain of Direct Effects of Copyright in Creative Industries in the National Economy.	321
<b>Chart 2:</b>	Changes in Economic Contribution of Copyright-Based Industries between 2002 and 2007	331
<b>Chart 3:</b>	Distribution of Economic Contribution of Copyright-Based Industries in 2002 and 2007	333
<b>Chart 4:</b>	Comparison of Contributions Based on % of Value Added in GDP, 2007	334
<b>Chart 5:</b>	Comparison of Contributions Based on % of Employment in National Employment, 2007	334
<b>Chart 6:</b>	Comparison of Productivity Measured in Terms of Nominal VA per Employee, 2007	335
<b>Chart 7:</b>	Foreign Trade and Balance in Copyright-Based Industries in 2007	336
<b>Chart 8:</b>	Foreign Trade and Balance in Copyright-Based Industries in 2002	337
<b>Chart 9:</b>	Relative Size of Core Copyright Industries in 2002 and 2007	338
<b>Chart 10:</b>	Output Structure of Core Copyright Industries	339
<b>Chart 11:</b>	Value Added Structure of Core Copyright Industries	341
<b>Chart 12:</b>	Employment Structure in Core Copyright Industries	342
<b>Chart 13:</b>	Productivity of Core Copyright Industries in Real Terms	343
<b>Chart 14:</b>	Relative Size of Interdependent Copyright Industries in 2002 and 2007	345
<b>Chart 15:</b>	Interdependent Industries' Output Structure in 2002 and 2007	346
<b>Chart 16:</b>	Interdependent Industries' Value Added Structure in 2002 and 2007	347
<b>Chart 17:</b>	Interdependent Industries' Employment Structure in 2002 and 2007	348
<b>Chart 18:</b>	Relative Size of Partial Copyright Industries in 2002 and 2007.	349
<b>Chart 19:</b>	Partial Industries' Output Structure in 2002 and 2007	350
<b>Chart 20:</b>	Partial Industries' Value Added Structure in 2002 and 2007	351
<b>Chart 21:</b>	Partial Industries' Employment Structure in 2002 and 2007	352
<b>Chart 22:</b>	Relative Size of Non-Dedicated Copyright Industries in 2002 and 2007	353
<b>Chart 23:</b>	Non-Dedicated Industries' Output Structure in 2002 and 2007	354
<b>Chart 24:</b>	Non-Dedicated Industries' Value Added Structure in 2002 and 2007	355
<b>Chart 25:</b>	Non-Dedicated Industries' Employment Structure in 2002 and 2007	356
<b>Chart 26:</b>	The added value of copyright-based industries as % of GDP per country	357
<b>Chart 27:</b>	The Employment of Copyright-Based Industries as a % of Total Employment per Country	358

<b>Chart 28:</b>	Household consumption of copyright-related products in Slovenia	361
<b>Chart 29:</b>	Importance of copyright-related products in total household consumption in Slovenia	362
<b>Chart 30:</b>	Distribution of household consumption of sport and culture	362
<b>Chart 31:</b>	Publishing of books and press publications between 2000 and 2007	363
<b>Chart 32:</b>	Structure of published books: original works vs. translations	364
<b>Chart 33:</b>	Structure of literature book titles by type of literature	364
<b>Chart 34:</b>	Three largest categories of serial publications	365
<b>Chart 35:</b>	Radio and television programs in Slovenia	366
<b>Chart 36:</b>	Radio programs by program status	366
<b>Chart 37:</b>	TV programs by program status	367
<b>Chart 38:</b>	Origin of TV program	367
<b>Chart 39:</b>	Production and distribution of films in Slovenia	368
<b>Chart 40:</b>	Cinemas and seats	369
<b>Chart 41:</b>	New works performed	370
<b>Chart 42:</b>	Performances at theatres	370
<b>Chart 43:</b>	Attendance in theatres	371
<b>Chart 44:</b>	Public sources of cultural activities	372
<b>Chart 45:</b>	Structure of revenues for different cultural activities	373

## Executive Summary

---

This is the first study on the economic contribution of copyright-based industries to the Slovenian economy. It was initiated by the Slovenian Intellectual Property Office (SIPO) and financially supported by the World Intellectual Property Organization (WIPO) and the Ministry of Culture of the Republic of Slovenia, and was conducted between February 2009 and November 2009. The main purpose of the study is to quantify the economic contribution of industries based on copyright and related rights to the Slovenian national economy by measuring output, value added, employment and foreign trade. This study follows a methodology developed and proposed by WIPO based on best practices in the field. The main advantage of this methodology is that it allows for international comparability, since the study has already been conducted in more than 20 countries around the world.

It has to be stressed that the aim of the study was neither to measure the extent of illegal activity or piracy, nor to measure the impact of copyright on GDP (i.e. how much higher GDP is because of copyright). Instead, the main tasks were: i) to identify industries that are copyright-based according to WIPO; and ii) to measure their output, value added, employment, and foreign trade. The core of the study is based on official statistical data, but supplementary sources of information, including interviews with representatives of copyright-based industries, were also used. In order to identify relevant changes and trends, all data in this study was collected for the years 2002 and 2007.

The main conclusion based on analyzed statistical data is that copyright-based industries are significant to the Slovenian economy. In 2007 the total contribution of these industries was EUR 4.2 billion in production output, which represents 5.8 percent of national production output. Furthermore, these industries contributed EUR 1.7 billion in value added or 5.1 percent of national GDP. In terms of employment, copyright-based industries generated 54,506 jobs, which represented 6.8 percent of national employment. Our study showed that the productivity of copyright-based industries, measured as value added per employee, was EUR 32,025, which was below the national average of EUR 37,963. The balance of foreign trade of copyright-based industries was negative, meaning that imports were higher than exports, and amounted to EUR 279.1 million. The trend between 2002 and 2007 was mostly positive, but lower than the average for the economy.

Among the copyright-based industries, core industries make the largest economic contribution to the Slovenian economy. In 2007, core industries contributed approximately two thirds of the total contribution of copyright-based industries to GDP. Within core industries, press and literature was the most important in terms of the creation of output, value added and employment; however, software and databases, as a young and growing industry, is rapidly gaining economic importance.

Our findings show that the contribution of copyright-based industries to national GDP is similar to the contributions of public administration and common social services. The contribution is higher than the contributions of education; health and social work; financial intermediation; electricity, gas and water supplies; hotels and restaurants, etc. Compared to the findings of other national studies, the contribution of copyright-based industries to GDP in Slovenia was slightly lower than the average for 21 countries that have conducted a similar WIPO-methodology-based study (5.5 percent).

The core of the study analyzed the direct contribution of copyright-based industries to the Slovenian economy. However, in addition to this direct effect, copyright-based industries also indirectly generate demand for other industries that are linked to copyright-based industries (i.e. copyright-based industries need the products and services of financial, construction, food industries, etc.). To identify and estimate the total contribution of copyright-based industries (i.e. the direct as well as the indirect contribution, operating via backward linkages throughout the economy) on key macroeconomic variables, we applied input-output analysis. Results suggest that the total output impact of copyright-based industries across the economy in 2007 represented around 7 percent of total domestic production, and equated to 66,447 jobs (8.3 percent of total employment in Slovenia). Thus, the total value added that was created in 2007, directly and indirectly linked to copyright-based industries, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP.

The estimated output multiplier of copyright-based industries in Slovenia is 1.57, which means that each EUR 1,000 of copyright-based industries' final-use production will result in EUR 1,570 in total output production throughout the economy. Interestingly, this is comparable to the role of the tourism industry in Slovenia in terms of both the direct and the multiplication effect. Among the four groups of copyright-based industries, core and non-dedicated industries exhibited above-average multiplication effects. Core copyright industries alone have directly and indirectly provided 5 percent of national employment, 5 percent of total national value added, and 4.6 percent of GDP.

Considering the economic weight and results of the international comparison of copyright-based industries established by this study, we believe that copyright-based industries should receive more consideration from economic policies.

# 1. Introduction

---

## 1.1 Background

Copyright protects creativity, which is a source of competitive advantage and one of the key drivers of economic growth. Therefore, it is of vital importance that national governments and business communities become aware of the role of copyright industries in the national economy. Quantifying the contribution of the copyright-based industries provides insight into the extent to which the national economy is dependent on copyright-protected products and services. There have been a number of attempts to define and measure the contribution of copyright-based industries to national economies, the most broadly used approach is the one that has been developed and recommended by WIPO.

Until now, there has been no comprehensive economic analysis focusing exclusively on copyright-based industries in Slovenia. This is the first study on the economic contribution of copyright-based industries to the Slovenian economy. This study was initiated by the Slovenian Intellectual Property Office (SIPO) and financially supported by the World Intellectual Property Organization (WIPO) and the Ministry of Culture of the Republic of Slovenia, and was conducted between February 2009 and November 2009. In addition to financial support, WIPO provided the methodological framework and advice on the contents and scope of the study, which ensured consistency with similar studies in other countries.

It is expected that the quantification of the contribution of copyright-based industries to the national economy will indicate the importance and relevance of copyright-based industries to Slovenia and improve general awareness of the role of copyright and related rights. The decision-makers may include the findings of the study within the future development of national strategies of economic development and competitiveness. Further, it is anticipated that the study will be of use to the industry and the government when evaluating the existing legal framework and its enforcement, planning its future amendments, and facing the challenges of providing adequate protection of copyright and related rights.

## 1.2 Study objectives

In this study, the authors had the following four main objectives. The first was to quantify the economic contribution of industries based on copyright and related rights to the Slovenian national economy by measuring value added, employment and foreign trade. The second was to analyze selected copyright-based industries of importance to Slovenia, following the WIPO identification and categorization scheme. The third was to compare the results with other surveys carried out using the WIPO methodology, and the fourth was to propose policy and institutional interventions to develop the copyright-based industries in Slovenia.

## 1.3 Methodology

In recent decades, countries have undertaken studies attempting to evaluate the contribution of copyright and related rights using a plethora of approaches. Because of the inherently complex nature of the topic, these approaches vary substantially. A disadvantage of these studies was that it was difficult to compare them directly. Therefore, WIPO developed a methodology based on best practices in the field and published a methodological guide for evaluating the contribution of copyright-based industries to national economies (Guide on Surveying the Economic Contribution of the Copyright Industries<sup>1</sup>). This study follows the proposed WIPO methodology.

The main advantage of the WIPO methodology is its international comparability, since the study has already been conducted in more than 20 countries around the world. It is also a systematic approach for the definition and analysis of copyright-based industries. However, there are also some limitations to the methodology: for example, it is not able to estimate the value of copyright or the impact<sup>2</sup> of copyright on the economy, but only its contribution, and it does not include illegal activities and piracy.

---

<sup>1</sup> WIPO Publication Number: 893, ISBN: 978-92-805-1225-0.

<sup>2</sup> Estimating the economic impact of copyright would mean how much bigger the industries would be with copyright (WIPO Guide, 2003, p. 19).

We followed the WIPO guide recommendations and took the following four steps:

1. identification and classification of industries;
2. data collection;
3. data analysis;
4. presentation of results

Within the first step the research team was set up, copyright legislation was reviewed, the copyright chain was analyzed, and ISIC codes' correspondence to national statistical classification was verified. Based on the availability of statistical data, we used the following indicators to measure the economic contribution of copyright-based industries: total output, value added, employment, and foreign-trade data.

Researchers from the National Statistical Office mainly carried out the data collection of the second step, when the industries were classified into four groups as recommended by the WIPO guide. In some of the cases, where identification of the industry group was difficult, we used expert opinions to help us make decisions about allocation rates. All data in this study was collected for the years 2002 and 2007, because the last available data was for 2007. We estimated that a period of at least five years was needed in order to track the relevant changes.

Within the third step we established the copyright factors. In order to define the copyright factors for specific industries we conducted personal interviews based on semi-structured questionnaires. Calculation of the value of selected indicators followed. Finally, input-output analysis was performed.

In the final step the results were analyzed and commented upon. A panel of representatives of the industries was consulted to get additional insight into the relevance of results. The results of the study were compared to the results of previous studies based on the WIPO methodology.

Based on our conclusions, we believe that it would be reasonable to plan further studies following the same methodology in order to observe the future development and the growth or decline of the economic importance of copyright-based industries.

## 1.4 Research team

Researchers contributing to the study are, firstly, expert economists who come from the academic sphere of the University in Ljubljana: Ljubica Knežević Cvelbar, Ph.D., Assistant Professor in the Faculty of Economics; Mojca Marc, Ph.D., Research and Teaching Assistant in the Faculty of Economics; Peter Rebec, M.Sc., Researcher at the Economic Institute of the Faculty of Law in Ljubljana; and Sonja Šlander Wostner, M.Sc., Research and Teaching Assistant in the Faculty of Economics. Secondly, the researchers included the following people from the Slovenian Statistical Office: Karmen Hren, M.Sc., Head of the National Accounts Sector; and Anže Podnar, BSc., National Accounts Sector. The national consultant appointed by WIPO was Urša Chitrakar, LL.M., Attorney, specializing in copyright and related rights issues and entertainment law.

The research team benefited from the international consultant appointed by WIPO, Mr Željko Topić, Director of the Croatian Intellectual Property Office and the author of the Croatian study on the economic contribution of copyright-based industries. In addition, the researchers were additionally advised by Mr Dimiter Gantchev, the Acting Director of the Creative Industries Division in the World Intellectual Property Organization (WIPO).

## 1.5 Structure of the study

The study is divided into six chapters: after the introductory chapter, the legal framework is presented in chapter II, followed by a brief review of the economics of copyright in chapter 3. In section 4, the methodology is elaborated, followed by the presentation of the results in chapter 5. The final part of the study contains conclusions and recommendations.



## 2. Legal Framework

---

### 2.1 A Brief History of Copyright Legislation in Slovenia

Historically Slovenia was a part of the Federal Republic of Yugoslavia; therefore, federal legislation regulated copyright and related rights until Slovenia gained its independence in 1991. After Slovenia's declaration of independence in June 1991, the then-enforced Yugoslavian Copyright Law of 1978 was still used in Slovenia. Nevertheless, copyright and related rights gained constitutional importance in Slovenia with the adoption of the Constitution in December 1991, when intellectual property rights were included among human rights and fundamental freedoms. Article 60 of the Slovenian Constitution provides for the protection of copyright and other rights deriving from artistic, scientific, research and invention activities.

The first Slovenian Copyright and Related Rights Act<sup>3</sup> (Copyright Act) was adopted in April 1995. The Copyright Act has so far been amended five times; the most recent amendment was made in 2008. In the past, the most frequent reasons for amendments to Copyright Law have been particular difficulties with the collective management of copyright and related rights and the harmonization of law with EU Directives. Legal provisions relating to the collective management of copyright and related rights have been changed four times and are once again under scrutiny; consequently, it is expected that further changes pertaining to collective management will be made.<sup>4</sup> Most of the other amendments to the Copyright Act were necessary in order to harmonize it with EU directives and other international treaties (i.e. the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty) and to ensure its appropriate implementation. In addition to the Copyright Act, there are several other acts pertaining to artistic property. The Libraries Act<sup>5</sup> and its implementing regulations prescribe the remuneration rules and conditions for the enforcement of the public lending right. The public lending right, as one of the author's rights, was extracted from the Copyright Act and diminished to the right to equitable remuneration, when the original or a copy of a work is made available for use, for a limited period of time, without direct or indirect economic advantage, and if done through organizations performing such activities as a public service.

Among other relevant legislation related to artistic property, the most relevant are the following acts:

- Act establishing the Public Agency of the Republic of Slovenia for Books<sup>6</sup>;
- Public Use of the Slovene Language Act<sup>7</sup>;
- Legal Deposit Act<sup>8</sup>;
- Act on Enforcing Public Interest in the Field of Culture<sup>9</sup>;
- Decree on Self-Employed Persons in the Field of Culture<sup>10</sup>;
- Media Act<sup>11</sup>;
- Radiotelevision Slovenia Act<sup>12</sup>;
- Film Fund of the Republic of Slovenia Act<sup>13</sup>; and
- Conditions for Reproductive Video and Audio Activities Act.<sup>14</sup>

---

<sup>3</sup> Published in the Official Gazettes of the Republic of Slovenia (OG RS) Nos. 21/95, 9/01, 43/04, 17/06, 139/06 and 68/08.

<sup>4</sup> In April 2009 the Slovenian Intellectual Property Office again invited the people concerned to propose amendments to the Copyright Act; therefore, new amendments are likely to happen soon.

<sup>5</sup> Official Gazette of the Republic of Slovenia Nos. 87/2001 and 96/2002.

<sup>6</sup> Official Gazette of the Republic of Slovenia Nu.: 112/2007.

<sup>7</sup> Official Gazette of the Republic of Slovenia Nu.: 86/2004.

<sup>8</sup> Official Gazette of the Republic of Slovenia Nu.: 69/2006.

<sup>9</sup> Official Gazette of the Republic of Slovenia Nos. 77/2007 and 56/2008.

<sup>10</sup> Official Gazette of the Republic of Slovenia Nos.: 9/2004 and 76/2006.

<sup>11</sup> Official Gazette of the Republic of Slovenia Nu.: 110/2006.

<sup>12</sup> Official Gazette of the Republic of Slovenia Nos. 96/2005, 109/2005, 105/2006, 26/2009 and 31/2009.

<sup>13</sup> Official Gazette of the Republic of Slovenia Nos.: 17/1994, 22/2000 and 59/2001.

<sup>14</sup> Official Gazette of the Republic of Slovenia Nos.: 42/1994, 50/1994, 1/1995 and 69/2006.

## 2.2 International and EU Copyright and Related Rights Legislation

Slovenia is bound by the following international instruments, which regulate the field of copyright and related rights:

1. Berne Convention for the Protection of Literary and Artistic Works (1886), entered into force by Slovenia as of the date of independence, June 25, 1991;
2. Universal Copyright Convention (1952), entered into force by Slovenia as of November 5, 1992 (by notification of succession);
3. Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (1974), entered into force for Slovenia as of November 3, 1992 by notification of succession;
4. Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms (1971), accessed by Slovenia as of July 9, 1996;
5. Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations – The Rome Convention (1961), ratified by Slovenia on October 9, 1996;
6. World Intellectual Property Organization Copyright Treaty – WCT (1996), ratified by Slovenia on March 6, 2002;
7. World Intellectual Property Organization Performances and Phonograms Treaty – WPPT (1996), ratified by Slovenia on May 20, 2002;
8. TRIPS Agreement (1994), which came into effect on January 1, 1995;
9. Convention establishing the World Intellectual Property Organization – WIPO Convention (1967), entered into force by Slovenia as of the date of independence, June 25, 1991.

The EU Directives harmonizing the copyright and related rights legislation of Slovenia with the *acquis communautaire* are:

1. Council Directive 91/250/EEC of May 14, 1991 on the legal protection of computer programs;
2. 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 (codified version);
3. Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission;
4. 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 (codified version);
5. Directive 96/9/EC of the European Parliament and of the Council on the legal protection of databases;
6. Directive 2001/29/EC of the European Parliament and of the Council on the harmonization of certain aspects of copyright and related rights in the information society;
7. Directive 2001/84/EC of the European Parliament and of the Council on the resale right for the benefit of the author of an original work of art;
8. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

## 2.3 Copyright and Related Rights Act

### 2.3.1 Subject of Protection

The Copyright Act defines protected works as individual intellectual creations in the domain of literature, science and art, which are expressed in any mode. The law does not restrict the types of protected works, but merely lists them as examples, in particular spoken works, written works, musical works, theatrical works, choreographic works, audiovisual works, etc. Therefore, any work can be protected by copyright if it has been individually created by a person (author) in the process of intellectual activity and is expressed in a way that enables (any kind of) perception.

Works that are excluded from copyright protection are:

1. ideas, principles, discoveries;
2. official legislative, administrative and judicial texts; and
3. folk, literary and artistic creations.

### 2.3.2 Author

An author is a natural person who created the work. A legal entity can be the holder of copyright, but is never considered to be the author of the work, even though it commissions the work or employs the author who created the work. A person whose name, pseudonym or artist's mark appears on the work or is indicated at the time of disclosure of the work is presumed to be the author of the work, until proved otherwise. If two or more persons cooperate in the creation of a work so that it constitutes an inseparable whole, they are considered co-authors and enjoy joint copyright in such work.

### 2.3.3 Copyright (Types and Scope of Rights)

Copyright belongs to the author by the mere fact of creation of a work. An author who creates a work does not have to register or publish the work in order to gain copyright protection. The copyright comes into existence automatically as soon as the work is created. Copyright is the indivisible right to a work, from which emanate exclusive personal powers (moral rights), exclusive economic powers (economic rights) and other powers of the author (other rights of the author). Exclusivity of copyright implies that it is absolute in its nature and that it affects everybody, and therefore has an *erga omnes* effect.

Moral rights protect the author's intellectual and personal ties to the work. Moral rights are inalienable and non-transferable and cannot be waived. The Copyright Act acknowledges four moral rights: the right to the first disclosure; the right to the recognition of authorship; the right to the integrity of the work; and the right to withdrawal.

Economic rights protect the author with respect to his economic interests by giving the author the exclusive right to authorize or to prohibit the use of his work or copies of his work. Unless otherwise provided for by the Copyright Act, the use of copyrighted work is only lawful if the author, under the conditions he has set, has assigned the respective economic right. The following economic rights are listed in the Copyright Act:

- the right of reproduction;
- the right of public performance;
- the right of public transmission;
- the right of public communication by phonograms and videograms;
- the right of public presentation;
- the right of broadcasting;
- the right of rebroadcasting;
- the right of secondary broadcasting;
- the right of making available to the public;
- the right of transformation;
- the right of audiovisual adaptation;
- the right of distribution; and
- the rental right

This list is not exhaustive; therefore, the author has as many rights as there are uses of his work. Every new type of use of copyright work generates a new economic right.

Other rights of the author protect the author's interests, which are not typically lucrative or strictly moral, but are still important for the author in relation to the protected work and the possibility of using it. Other rights of the author include the right of access (to the original or to a copy of the work, which is in the possession of another) and of delivery of the original work of fine art or of photographic work for the purpose of an exhibition; the resale right (*droit de suite*); the public lending right; and the right to remuneration for authorized private or internal use (photocopying and sound or visual fixation).

### 2.3.4 Transfer of Copyright

Copyright as a whole cannot be transferred. The author may assign to other persons single economic rights and other rights of the author, either by contract or by another legal transaction recognized by the law. Moral rights are inalienable and as such cannot be assigned to other persons. Any contractual stipulation by which the author assigns either copyright in its entirety or moral rights is considered null and void. The same rule applies to the assignment of economic rights with respect to all the future works of the author and to the

assignment of economic rights with respect to as-yet-unknown means of use of his work. An assignment of single economic rights or other rights of the author may be limited as to the extent (exclusive or non-exclusive assignment), territory, or time. Even though copyright as a whole cannot be transferred, it can be subject to succession. After the author's death, his heirs assume his legal status in relation to the protected works and therefore become the right-holders of the author's economic, moral and other rights.

Copyright is an insubstantial asset and, as such, independent from and compatible with ownership or other property rights in any material object in which the copyright work is embodied. The transfer of single economic rights or other rights of the author with respect to his work does not affect the ownership of the material object in which the work is embodied. Likewise, the transfer of ownership of the material object in which the work is embodied does not affect single economic rights or other rights of the author with respect to his work. However, with the exception of architectural structures, the owner of an original of a work shall not destroy such an original before offering it to the author at the cost of the material (presuming the author has a justifiable interest in its prevention).

### **2.3.5 Limitations on Copyright**

Even though copyright is exclusive in its effect, the Copyright Act limits it in some cases for the benefit of other rights and/or in the interests of society. In every such case, the limitation(s) on copyright are only permissible provided that the extent of such exploitation of copyrighted works is limited by the intended purpose, is compatible with fair practice, does not conflict with normal use of the work, and does not unreasonably prejudice the legitimate interests of the author. There are two basic levels of limitations of copyright provided for by the Copyright Act: 1. legal licenses and 2. free use of the work. Legal licenses enable the use of the work without the assignment of a respective economic right, but on payment of equitable remuneration (i.e. the reproduction of a work in textbooks intended for teaching, the reproduction of works for the benefit of disabled people), while free use means that the work may be exploited without the assignment of the respective economic right and without paying any remuneration to the author (i.e. the use of a work in order to enable access to information of a public nature, the use of a work in quotations, the private reproduction of a work, public performance in the form of teaching, and similar).

### **2.3.6 Term of Copyright Protection**

Copyright lasts for the life of the author and for 70 years after his death. On the expiration of the term of protection, the work ceases to enjoy copyright protection and moves into the public domain. If the work has been created by several authors (co-authors) the term of protection is calculated from the death of the last surviving co-author. In some cases, however, copyright does not last for the life of the author and 70 years after his death, but runs from the lawful disclosure of the work, for instance in the case of anonymous and pseudonymous works or collective copyright works (i.e. encyclopedias, anthologies).

### **2.3.7 Related Rights**

Related rights differ from copyright mainly in the subject matter of protection. While copyright protects individual intellectual creations, related rights provide protection to certain undertakings similar to intellectual creations (like performances) or other efforts (i.e. organization, production or investment) in relation to the production or communication of copyrighted works.

The following six types of rights related to copyright are provided for by the Copyright Act:

1. rights of performers (i.e. actors, singers, musicians, dancers and others), which enable performers to exercise:
  - exclusive economic rights (to fix their live performances, to reproduce, distribute and rent the phonograms or videograms containing their performances, to publicly transmit their live performances, to broadcast their live performances and to make available to the public the phonograms or videograms of their performances);
  - exclusive moral rights (the right to be identified as the performer and the integrity right); and
  - the right to remuneration in cases of public communication of a phonogram and remuneration for (allowed) private and internal use;

2. rights of producers of phonograms, which grant producers of phonograms the exclusive rights to reproduce, transform, distribute, rent, and make available to the public their phonograms as well as the right to remuneration (for public communication and private reproduction of its phonograms);
3. rights of film producers, which provide film producers with the exclusive right to reproduce, distribute, rent and present their videograms to the public and make their videograms available to the public as well as the right to remuneration for (allowed) private and other internal use;
4. rights of broadcasting organizations, enabling broadcasters to exclusively rebroadcast their broadcasts, to secondary broadcast their broadcasts, to fix their broadcasts and reproduce the fixations of their broadcasts, distribute them and make available to the public their broadcasts;
5. rights of publishers, which give the publishers the right to remuneration for reproduction for private or other internal use and give them certain additional legal protection for publications of previously unpublished works or scientific editions in the public domain; and
6. rights of makers of databases who have the exclusive rights to reproduce and distribute copies of their databases, to rent copies of their databases, to make available to the public their databases and to other forms of communication to the public of their databases.

The term of protection of related rights is shorter than the term of protection of copyrighted work and lasts for 50 years (for the rights of performers, the rights of producers of phonograms, the rights of film producers, the rights of broadcasting organizations and the remuneration right of publishers), 25 years (for the publishers of unpublished works in the public domain), 30 years (for the publishers of scientific editions of works in the public domain) or 15 years (for the rights of the makers of databases). The term of protection always lasts from an event, such as the date of the performance or fixation, or the first lawful publication or other communication to the public.

The protection of related rights does not affect in any way the protection of copyright and leaves copyright intact. However, certain relevant provisions of the Copyright Act apply *mutatis mutandis* to related rights, such as provisions concerning elements of copyrighted work, the presumption of authorship, the contents of economic rights and other rights of the author, the relationship between copyright and ownership, limitations on copyright, the beginning and effect of the running term of protection, the transfer of copyright, etc.

## 2.4 Management and Enforcement of Copyright and Related Rights

### 2.4.1 Individual and Collective Management of Copyright and Related Rights

The author's rights may be managed individually (separately for each protected work) or collectively (for a number of protected works of several authors at the same time). In most cases authors may choose whether to manage their rights individually or collectively, except in some specific cases. Collective management is compulsory in Slovenia for the following rights: communication to the public of non-theatrical musical and literary works (small rights), resale right (*droit de suite*), private reproduction (beyond the scale allowed by law), and cable retransmission of works. Collective management organizations are obliged by law to manage these rights for their members as well as non-members and therefore do not need to obtain a mandate from the right-holders. To manage any other rights, collecting organizations must enter into an agreement with the authors or right-holders.

Currently, only four collective management organizations are active in Slovenia: 1. SAZAS, which represents composers, authors and publishers in the field of music; 2. ZAMP, which manages the rights of authors of literary and scientific works and their translations; 3. IPF, licensed to manage the rights of performers and producers of phonograms; and 4. SAZOR, which is authorized to administer reprographic rights. Two other organizations have been established and are in the process of obtaining authorization to manage rights for authors and right-holders of audiovisual works.

The Slovenian Intellectual Property Office (SIPO) is the competent authority for granting authorizations to collecting societies. As a rule, only one collecting society is authorized to manage rights for a particular category of works. Due to the absence of organizations that would manage the rights for other categories of work, for instance audiovisual works, theatrical works, works of visual art, and photographs, SIPO is authorized to issue temporary permission for the collective administration of certain rights to legal entities which do not meet the conditions set by the Copyright Act for collecting societies. This is the case with IPF,



which was authorized to manage the right to remuneration for making sound and video fixations for private or other internal use, and SAZAS, which was temporarily permitted to manage the cable retransmission right. If SIPO does not grant permission for the collective administration of rights which by law may only be administered collectively, such rights may be administered individually, however this does not happen in practice.

The non-existence of collective administration organizations in certain fields is a problem specific to Slovenia. Many authors and right-holders are not at all interested in or even aware of the possible advantages of collective management of their rights. Fine artists, for instance photographers and illustrators, have not yet even attempted to start with the collective management of their rights. In reality, in such cases the rights that belong to authors or right-holders according to the provisions of the Copyright Act and the respective EU Directive are not being implemented at all in Slovenia and are therefore merely a lifeless letter of the law.

Collective rights management is obviously one of the most problematic areas of copyright law in Slovenia. Collective management of copyright and related rights has been the subject of four amendments to the existing Copyright Act since its adoption in 1995 and further amendments to collective management provisions are expected to be made soon. Complaints against the existing model of collective management from users as well as from authors (and right-holders) are pouring in. Often, authors refuse the mandate of a collecting society and decide to manage their rights individually instead.

Determining appropriate tariffs for the use of protected works is one of the major issues causing numerous difficulties. According to the Copyright Act, the tariffs are supposed to be negotiated between collecting societies and the representative association of users, and to be included in the agreements they execute. However, this is not the case with remuneration rates for private and other internal reproduction, where the government sets the levies by the Decree on the amounts of remuneration for private and other internal reproduction. Typically, the most common complaint from the users of a protected repertoire is that tariffs set by rights-managing organizations are unjust, unreasonable and inflexible, and that the collecting societies use them in an arbitrary way. Due to such convictions, many users refuse to obtain licenses for the use of repertoire works and to pay the due royalties. Such disagreements between the users of protected works (in particular bars, restaurants, hairdressers, hotels, shopping malls, etc.) often result in court disputes that last several years, during which protected works are being used free of charge or not used at all.

In 1998, several users lodged petitions with the Slovenian Constitutional Court to review the constitutionality of certain Copyright Act provisions on collective rights management. By decision No. U-I-149/98-36, in 2001, the Constitutional Court dismissed all petitions as manifestly unfounded and decided that the allegedly unconstitutional provisions of the Copyright Act and implementing regulations issued by a collective management organization are in compliance with the Slovenian Constitution.

In an effort to solve the ongoing disputes between collecting societies and users of protected works – inefficient and long-lasting negotiations and numerous attempts at a settlement that were repeatedly brought to a standstill – several solutions were eventually proposed. In the beginning the tariffs had to be approved by the Slovenian Intellectual Property Office (SIPO). This rule was abolished in 2004 when it was expected that negotiations between collecting societies and representative associations of users would have a better outcome if the state did not interfere. Instead, mediation was introduced as the recourse mechanism intended to help in resolving the disputes arising from failed negotiations. The amendments to the Copyright Act in 2006 introduced arbitration as a new alternative to dispute resolution between collecting societies and users of their repertoire, but it was deleted from the act several months later, before it could even be implemented. At the same time, the scope of mediation was reduced to the disputes concerning cable retransmission of broadcasts. To this day, mediation has never been used in practice to resolve such disputes. Following the amendments to the Copyright Act made in December 2006, the Copyright Board was introduced and appointed by the Minister of Economy in 2007. The Copyright Board is an independent and impartial authority competent to settle disputes between collecting societies and the representative association of users when they cannot agree on tariffs, or to decide on other issues regarding the use of the collecting society's repertoire. So far, the Copyright Board has dealt with one case (one had been withdrawn due to unpaid taxes) and issued a decision against which both parties had appealed to the Supreme Court; the case is now pending. It is unlikely that the Copyright Board will have any reasonable effect, since within three months of the date of the appointment of the Copyright Board, two members had been replaced by the Minister of Economy and three members consequently resigned.



On the other hand, authors and right-holders complain about the “notorious” non-transparency of the right-management organizations, in particular of the repartition of collected revenues and their general refusal to enable authors and right-holders to allow certain uses of their work under conditions that differ from those set by the management organizations (i.e. the use of works under the conditions of creative commons licenses or the free use of works for non-profit events). The Copyright Act in fact provides for one exception to mandatory collective management in the case where the main performer is at the same time the author or right-holder of all the works that are being performed in public. In such cases, the author is entitled to manage his/her rights individually and the collecting society cannot exercise the right on his/her behalf. Authors as well as venues and some event organizers frequently use this exception, in particular for non-profit concerts and events. Concert organizers very often provide SAZAS (the Slovenian organization that manages the rights of musicians) with a written statement signed by musicians (who are also authors of the music they perform) by which the musicians declare that they want to manage their rights individually instead of collectively. In this way, concert organizers avoid payment of fees prescribed by the collecting society, SAZAS. When asked why they are willing to sign such statements, the musicians say that they never see the money collected by SAZAS. That is why they prefer to negotiate their concert fees directly with concert organizers or venues.

The Copyright Act provides for certain supervising measures for the members of collecting societies as well as for the Slovenian Intellectual Property Office (SIPO) as the competent state authority. In fact, such measures have very little effect, because individual members do not have the knowledge to discover alleged accounting irregularities and demand proper corrections (usually pertaining to repartition). One of the collecting societies even diminished the scope of its members’ voting rights by linking such rights to the specific amount of remuneration earned from the use of their work. Consequently, a very small circle of authors (or right-holders) decides on issues crucial for the management of the rights of all members (including the setting of tariffs and rules of repartition of collected revenue).

On the other hand, SIPO does not have proper recourse in the case where a collecting society refuses their request for inspection. Since 2007, every decision by which SIPO demanded corrections of presumed infringements has been challenged by collecting societies at the administrative court, where all such cases are still pending. Even the possibility of withdrawing the authorization issued to a collecting society never seemed to be considered as an option, because under a system where, as a rule, only one collecting society may manage the rights vested in a certain category of works, the authors and right-holders may suffer undesirable consequences. According to the Copyright Act, SIPO also has the power to terminate previously granted authorization and issue such authorization to another society if such a society proves that it could provide more efficient and more economical management and that it could manage a more comprehensive repertoire of protected works than the existing collecting society. However, despite numerous complaints against the allegedly non-transparent operation of a certain collecting society, SIPO was never asked to cancel the existing authorization and grant it to another organization.

## **2.4.2 Measures of Legal Protection of Copyright and Related Rights**

### **2.4.2.1 Judicial Protection**

A wide range of civil measures is provided to authors and other right-holders in cases of copyright infringement. Civil claims against infringers include: the prohibition of infringement; the recall of infringing goods from the channels of commerce; the removal of the objects of infringement from the channels of commerce; the destruction of infringing goods and means of infringement; compensation for damage and punitive damages (remuneration increased by up to 200%); and monetary satisfaction for non-material damage and provisional measures. Copyright infringement claims all fall under the exclusive jurisdiction of the District Court in Ljubljana. Between 2006 and 2008, 269 cases were filed at the District Court in Ljubljana, of which 100 were decided (or settled) before October 2009. On average it took between five months and thirteen months (in some cases even more) before the court made its final decision on such disputes.

The violation of copyright and related rights is considered a criminal offence against human rights and liberties under the current Slovenian Criminal Code.<sup>15</sup> Even the violation of the moral rights of the author (i.e. the right of paternity or the right of integrity) may be punished by a fine or imprisonment of up to one

<sup>15</sup> Published in the Official Gazettes of the Republic of Slovenia Nos. 55/2008, 66/2008, 39/2009 and 55/2009.

year. The unlawful use of copyright-protected work or copies thereof that results in substantial property benefit may be punished by imprisonment of up to three years or more (eight in the extreme) in cases where the market value of copyrighted works from the offence represents large property benefits. In all such cases, copies of copyright-protected works and the equipment used for reproduction shall be confiscated. The same applies to violations of related rights. According to available official data, between 2006 and 2008 courts in Slovenia found 31 persons guilty of charges for criminal offences related to copyright violations. In 26 cases the accused were sentenced to short-term imprisonment (from min. 1 month to max. 6 months), in 4 cases the accused were punished by pecuniary penalties, and in 1 case only preventive measures were made.

#### **2.4.2.2 Administrative Protection**

Certain minor violations of copyright and related rights are considered as an offence for which the Copyright Act prescribes monetary fines. The Market Inspectorate is the administrative body under the Ministry of Economy responsible for the surveillance of the implementation of the Copyright Act. The Market Inspectorate may therefore order to remedy the offence within a certain time limit or decide on an infringement and impose a fine in the range of approximately EUR 250.00 to EUR 1,600.00 for each infringement of copyright or related rights, as well as seize the goods which were used or intended for the commission of the offence. The Market Inspectorate initiates the procedure *ex officio*. Moreover, anybody can report alleged infringements anonymously through the market inspection internet site; the Market Inspectorate is obliged to investigate all such reports.

According to its reports, the Market Inspectorate<sup>16</sup> most frequently investigates private companies for proper licensed software, as well as investigating the typical users of music, such as restaurants, bars, hotels, hairdressers and similar establishments, in relation to licenses for playing music on their premises. Other users of copyrighted works are inspected occasionally or following the reports of right-holders. Between 2006 and 2008, out of 2,860 inspected users (bars, restaurants, hairdressers) who play music from CDs or via radios, 470 (16.4 percent) did not have a proper license for public performance. From 396 companies that were investigated, 4,613 computers were inspected, and out of 19,853 computer programs installed on those computers, 1,540 (7.6 percent) were found not to be properly licensed. In addition, 112 copy shops and 8 companies providing clippings (from newspapers and other media) were inspected in 2007. In 22 cases (19.6 percent) the reproduction rights were infringed by copy shops and 97 copies of illegally photocopied books were confiscated. All companies that provide clipping facilities as their major service (4) had inadequate licenses and were ordered to comply with the Copyright Act.

Right-holders who suspect that their rights are or could be infringed by the importation or exportation of goods may also initiate proceedings with the custom authorities (which can also act *ex officio* in cases of infringement of intellectual-property rights). The General Custom Directorate is competent to temporarily detain goods suspected of infringing a certain intellectual property right or confiscate such goods until the final decision of the court is made. If infringement is established by the court's decision, the confiscated goods are destroyed. The proceedings may also be initiated *ex officio* by custom authorities in cases where goods are evidently counterfeit or pirated. Between 2006 and 2008 the custom authorities considered 884 requests, but all of them were related to counterfeit goods, not to copyright infringements.

<sup>16</sup> Available on the webpage of the Market Inspectorate of the Republic of Slovenia: <http://www.ti.gov.si/si/dokumenti/>

## 3. Economics of Copyright

---

The economics of copyright is a special field within the economics of intellectual property, thus much of what is said here addresses other forms of intellectual property besides copyright. By 'intellectual property', economists usually mean intangible property, as opposed to physical property like machines, buildings, and inventories. Allowing for a certain degree of overlapping, intellectual property can be divided into three main groups: industrial property (for example, patents, trademarks, and industrial design); intellectual property that can be protected by copyright; and intellectual property that can neither be protected as industrial property nor be copyrighted – for example, know-how, trade secrets, and other tacit knowledge of production or organization.

From an economic point of view, the first and second groups are similar in their characteristics and implications in terms of the legal protection they enjoy, while the third group is clearly different, since this intellectual property cannot be recorded in accounting statements as legal property, but is nevertheless a source of benefits, and even competitive advantages, for companies. However, most of the economic literature focuses on the first or third group of intellectual property, while there are only some relatively scarce examples of economic analysis of copyright.

In most cases, the economics of copyright is applied to *cultural, creative, or media* industries; therefore, these are often considered as synonyms for *copyright-based* industries. This is also established by the WIPO Guide (2003, p. 18), noting that some differences between these terms exist – e.g. copyright-based industries is a wider concept than cultural industries – although the delimitation is not always possible. This study focuses on a broad concept of copyright-based industries as defined in the Methodology section.

### 3.1 Characteristics of Intellectual Property and Copyright

Intellectual property is problematic from an economic point of view because, being a product of mind and intellect, it has a number of characteristics that make market transactions intrinsically much more complicated than for simpler goods. These characteristics lead to "market failures", which are instances when the markets for certain goods do not result in efficient production of these goods. The purpose of copyright is essentially to change some of these characteristics so that intellectual property becomes more like a private physical good and inherent market failures are overcome.

1. To begin with, it is difficult to identify and define intellectual property. Copyright gives a legal framework that facilitates the identification and definition of intellectual property that is expressed as an original work in any medium of expression.
2. Establishment of ownership is more difficult for intellectual property than for physical goods. Copyright gives a set of property rights to the author of intellectual work (or any other copyright-holder) embodied in the works entitled to copyright protection. In this way, the author (or any other copyright-holder) legally becomes the owner of his intellectual work. A necessary condition for copyright to work as intended is that the property rights given to authors of such works are respected and can be enforced.
3. Although intellectual property is obviously valuable to individuals and companies, it is difficult to put a value on it. By attaching property rights to intellectual work, copyright makes intellectual property a tradable good. The value of intellectual property can thus be determined through market transactions; this is still not a simple process, but is at least a possible one.

4. Intellectual property in general, and copyright more specifically, has characteristics similar to public goods that also require special treatment in economic analysis. A public good i) brings benefits to the community, but it is ii) not possible to prevent consumption of such a good by somebody who did not pay for it (i.e. avoid free-riders) and iii) consumption of the good by one person does not diminish the amount of consumption available for others.

Because of these characteristics, there would be no incentive to produce and trade such goods, so they would either not exist at all or, if they did exist, the quantity of them would be suboptimal. In other words, because of their benefits, people would like to have more of such goods, but since only individuals willing to produce them out of non-economic motives would offer these goods, the available quantity of public goods would be much lower than the demand for them. Copyright enables a correction of the incentive structure and transforms intellectual property into a private good, thus allowing the establishment of markets for copyrighted goods.

5. The means of intellectual product delivery and the intellectual property itself have to be considered separately: books allow us to read novels, CDs and concerts allow us to listen to music, and theatrical performances allow us to see and hear a play. Books, CDs, concerts, and theatrical performances are thus examples of “delivery goods”. As Watt (2004) notices, delivery goods are often private and not public like the content they carry; they can wear down while the creation itself cannot, and they can be traded legally downstream. Copyright protection is intended for the content and not the delivery good.
6. Products with high intellectual property input are mostly easily copied, especially with the development of modern technology and the digitalization of such works. Copyright theoretically allows protection against copying, but only if property rights are respected and can be enforced efficiently.
7. The production of products with high intellectual property input usually involves high fixed costs of creation and small marginal costs of reproduction – in the case of digitalization, the distribution of such products also has a small marginal cost – which in circumstances of intensive competition leads to prices set so close to marginal costs that fixed costs of creation cannot be covered; therefore, creators have no economic incentive to create.

### 3.2 Economic Functions of Copyright: Benefits and Costs

The characteristics and the functioning of copyright described in the above paragraphs give us a starting point for analyzing the economic functions of copyright in more detail.

The most important functions of copyright are to serve as an instrument of establishing ownership of an idea and as an instrument enabling transfer of rights over the protected product. By defining intellectual property and conferring property rights, copyright makes market transactions with copyrighted goods possible. Consequently, the value of copyrighted goods can be established and the authors can appropriate this value in market transactions; the negative effects of externalities of public goods are reduced; authors get market power over their work; and welfare is increased (WIPO Guide, 2003, pp. 20-21).

Effective copyright protection needs to balance a couple of trade-offs (Watt, 2004):

1. The most important of these is the trade-off between production (creation) and consumption (distribution). Since the creation of intellectual property has high fixed costs and can typically be reproduced with very low marginal costs, there is not enough incentive to produce such goods. By introducing some market power over the copyrighted good, creation is promoted, but at the same time this denies access to the good to consumers who are willing to pay a price that is above marginal costs but below copyright “monopoly” price. Effective copyright law tries to seek a balance between access and incentives by designing a system where consumers pay royalty payments to the author, thus covering the fixed costs of creation and giving the author an incentive to engage in creative intellectual work.
2. The trade-off between static and dynamic cumulative effects of copyright also calls for a balanced consideration of these effects by copyright law. The more protection copyright is offered today, the more second-generation creativity – based on copyrighted work, e.g. remakes of old movies or songs – is limited in the future.



3. The trade-off between different dimensions of copyright, like duration, depth and breadth, seeks to find an “optimal” mix of these dimensions. Duration refers to the length of copyright enforcement; depth refers to the aspects that are protected (e.g. only expressions of ideas are protected and never the idea expressed); and breadth refers to acts of copyright infringement. It can be shown analytically that the optimality of a particular solution is not robust, indicating that there will always be dilemmas regarding the proper solution. With copyrights being increasingly valuable, large corporations press for ever stronger, longer, and broader copyright protection, since they gain more from them (Towse, 2006).
4. The trade-off between intellectual property, and copyright, law and anti-trust law is becoming increasingly important, as stronger copyright protection and enforcement leads also to more market power (in the sense of copyright “monopoly”), sometimes even to levels that call for anti-trust regulation. A copyright “monopoly” is somewhat different from an economic monopoly because it only allows access to be excluded for people who are not willing to pay for a particular good; it does not exclude access to all other similar goods (Kitsch, 2000). Often, there is a misunderstanding that “property” and “monopoly” are the same from an economic point of view; in fact, “property” does not give you a “monopoly” over a good – it only allows some consumers to be excluded when desired, but these consumers cannot be prevented from buying similar products (Machlup, 1958).

Copyrights are much more useful for large distribution companies than for artists themselves (Towse, 2006). Artists must rely on distribution companies to market their work; the latter typically take a large share of the profits, while royalty payments to the former typically represent only a small share of revenues. Furthermore, distribution companies decide on the price charged for copyrighted goods, so they are interested in stronger copyright protection that allows them to charge higher prices.

It is common knowledge among cultural economists that a small number of superstars have high royalty earnings, while the vast majority typically earns very little. Research of authors’ revenues paid from copyright collecting organizations in Slovenia confirms this stylized fact about the extremely skewed distribution of artists’ earnings (Močnik et al., 2008). This fact clearly shows that economic value of copyright ultimately depends on demand and supply in the market. If the cost of dissemination is too high or demand is too low, copyright has no economic value (WIPO Guide, 2003, p. 22).

Copyright systems are thus not without their faults. Besides criticizing the above-mentioned asymmetric benefits in favor of distributors and not creators, some critiques are based on another economic ground: copying. Watt (2004) suggests a number of reasons why copying could actually be good for consumers and creators: besides higher consumer surplus because of cheaper copies, there are for example lower prices of original products; more jobs in third world countries, where most copies are produced, copying is free advertising for up-and-coming artists; and superstar artists are hit the hardest by copying, but their marginal utility of money is small, so there will only be a minimal effect on their behavior; and network effects.

Alternative mechanisms to copyright protection have been put forward, but so far none have been given wide support. Many of them seek to exploit new technologies to reduce the need for copyright, but the solutions are often only technical and fail to reduce the problem of free-riding in real life (Farchy and Rochelandet, 2003). Copyright-protection systems based on the existing rules and institutions therefore remain the principle element of creative intellectual property protection.

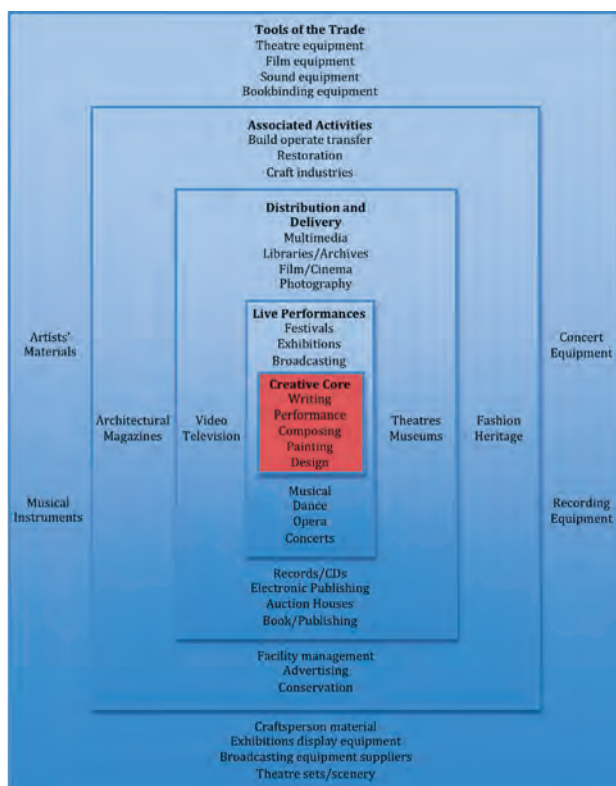
### 3.3 Copyright Effects in the National Economy

The economic effects of copyright are not limited to the process of creating products of intellectual work, but also include further stages like production, distribution and consumption of these products. The WIPO Guide (2003, p. 22) thus recommends that all activities resulting from the multiple effects of copyright on the economy are included in the measurement of the economic contribution of copyright. An example of the multiple effects of copyright is given in Chart 1.

As can be seen from Chart 1, in addition to the core creative copyright activities, the WIPO methodology of measuring copyright’s economic contribution also includes performance and distribution, supporting activities for preceding stages, and the manufacture of tools needed in preceding stages. The direct economic contribution of copyright-based industries is analyzed in this study in Sections 5.1 to 5.5.



**Chart 1: The Chain of Direct Effects of Copyright in Creative Industries in the National Economy.**



Source: WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries, 2003, p. 25.

Besides these direct multiple effects of copyright in the national economy, indirect effects are also present. Indirect effects of copyright in the national economy arise because copyright-based industries need domestic inputs for their products. For example, publishing companies need finance from banks in order to make and sell their products. Banking services are thus a direct input from the banking industry to publishing. Suppose banks require the direct input of construction services to be able to offer their own services – in this case, we would have an indirect input by the construction industry to the publishing industry (via banking). Such indirect effects of copyright-based industries can be estimated from input-output tables. This study investigates these effects in Section 5.7.

The aim of the study is not to estimate the economic impact of copyright-based industries in the sense of explaining how much economic growth would be lost if there was no copyright or how much additional economic growth the introduction of copyright (or a change in the degree of legal protection and enforcement) would entail. Following the WIPO Methodology, the aim of this study is to measure the size of copyright-based industries and to compare the contribution of these industries to GDP with other industries in the national economy and with the contributions of copyright-based industries in other countries.



### 3.4 References for Chapter 3

- [1] Farchy, J and F. Rochelandet (2003). Self-help Systems: Good Substitutes for Copyright or Barriers to Competition? in Gordon, W. J. and R. Watt (eds.), *The Economics of Copyright: Developments in Research and Analysis*. Cheltenham, UK and Northampton, MA: Edward Elgar.
- [2] Kitsch, E. (2000). Elementary and Persistent Errors in the Economic Analysis of Intellectual Property. *Vanderbilt Law Review*, 53, pp. 1727-1741.
- [3] Machlup, F. (1958). An Economic Review of the Patent System. United States Senate Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary.
- [4] Močnik, M. et al. (2008). Upravljanje avtorskih in sorodnih pravic v digitalnem okolju. Ljubljana: SIPO.
- [5] Towse, R. (2006). Copyright and Creativity: An Application of Cultural Economics. *Review of Economic Research on Copyright Issues*, 3(2), pp. 83-91.
- [6] Watt, R. (2004). The Past and the Future of the Economics of Copyright. *Review of Economic Research on Copyright Issues*, 1(1), pp. 151-171.
- [7] WIPO (2003). Guide on Surveying the Economic Contribution of the Copyright-Based Industries. Geneva: WIPO.

## 4. Methodology of the Study

---

In order to estimate the economic contribution of the copyright-based industries in Slovenia we used the recognized methodology suggested by WIPO. This methodology was published in the Guide on Surveying the Economic Contribution of the Copyright-Based Industries (2003), which has so far been used in 21 countries worldwide. The use of this methodology is highly beneficial, because it enables direct comparison with other countries and is a systematic and analytical tool for measuring the contribution of the copyright-based industries. Based on experiences from existing studies and expert opinions, the WIPO methodology identifies four groups of industries that have different degrees of copyright dependency:

- Core industries
- Interdependent industries
- Partial industries
- Non-dedicated industries

Each of these groups is clearly indicated and further presented in this Section and the Appendix (Table 25).

In order to carry out the research, we divided the research activities into three main parts:

- Review of literature
- Data collection (secondary and primary data collection)
- Presentation and discussion of the results

The first phase – the literature review – was essential for a better understanding of the copyright industries and their specifics and of the various methods used and results obtained in other international studies. In addition to the review of literature, we did an overview of the legal framework related to copyright in Slovenia, which provided us with a better understanding of the country's specifics. This phase was fundamental in developing and understanding the project requirements.

The second phase was data collection. This phase was divided into several sub-phases. We firstly identified the copyright-based industries (based on the WIPO Guide) and defined the proportions for the division of the industries within the groups (those steps are specified further in this section). After specification of the industries, we collected the secondary data on the following economic indicators:

- output;
- intermediate consumption;
- value added;
- employment; and
- foreign trade

The secondary data were collected for the years 2002 and 2007 and were available from the Statistical Office of the Republic of Slovenia. Besides stated secondary data, we also collected supplementary data in order to improve the understanding of the obtained results. Those data were available from the Statistical Office of the Republic of Slovenia.

Primary data were collected within the qualitative research. We conducted interviews with industry representatives and had group discussions with a panel of experts who evaluated the project's results. The interviews were conducted in August and September 2009 with representatives of companies from the interdependent and partial groups of copyright industries. The aim of the interviews was to obtain the copyright factors for the specific industries within the stated groups. Group discussions were used in order to obtain experts' opinions on the study results. Experts for group discussions were from core copyright industries. The group discussions were conducted during October and November 2009.

The third phase was dedicated to data analysis and presentation. We have summarized our findings in illustrative tables and figures to provide a clear overview. Within this phase we had to deal with the following challenges:

- evaluating and discussing the economic contribution made by industries that belong to the core, partial, interdependent, and non-dedicated groups (or to more than just one group) and the changes that had taken place during the observed period;
- decomposition of industries into subsectors and discussing the results for specific subsectors; and
- international comparison of the results.

The research team all had support from the WIPO expert and the appointed international consultant, which was a great help – their recommendations improved the quality of the project. The application of the WIPO methodology, however, is not just a process of simple copying. The work on the project requires a considerable effort by the national teams on the transfer of internationally applied standards and practices to the specific context of the national economy.

#### 4.1 Identification and Classification of Industries

Copyright-based industries were identified according to the Slovenian Standard Classification of Activities (SKD). It is the obligatory national standard used for recording, collecting, processing, analyzing, mediating and disseminating data, and is important for monitoring the situation and trends in the fields of economy, demography and social services, as well as in the field of the environment and natural resources. It is used to define the activity and to classify business subjects and their units for the needs of official and other administrative data collections (Business Register, VAT Register, Compulsory Social Security Register, etc.) and for the needs of national and international statistics and analyses.

For this study, SKD 2002 was used. It is harmonized with the European Classification of Economic Activities NACE Rev. 1.1. down to the fourth digit. For national purposes, many of these four-digit codes are additionally broken down to the fifth-digit code. These are used for activities that are very important in the structure of the Slovenian economy. By applying the methodology suggested by WIPO, relevant economic activities under each of the four groups were easily identified – core industries, interdependent industries, partial industries and non-dedicated industries.

The process was the same for the codes for the exports and imports of goods, except for the fact that exports and imports of goods are shown according to the activity to which the goods belong and not according to the activity of the enterprise that exported or imported the goods.

#### 4.2 Data Collection

For the purpose of this study, we used secondary and primary data. The secondary data and collection process are presented first, followed by the description of primary data collection and copyright factors.

##### 4.2.1 Output, Intermediate Consumption and Value Added

The compilation of output, intermediate consumption and value added of copyright-based industries is based on data provided by the Statistical Office of the Republic of Slovenia. These are compiled in line with the European System of Accounts (ESA 1995), with available data sources, and taking into account the Standard Classification of Activities (SKD). Individual units of the Business Register were allocated to individual copyright-based activities on the basis of official registration in the Business Register. The only exemptions are three copyright collecting organizations (ZAMP, IPF and SAZOR), which were allocated to activity 9112 irrespective of their registration in the Business Register.

**Output** equals the value of finished goods and performed services from the beginning to the end of the year. Output by activities is valued at basic prices, from which all taxes on products are excluded, but all subsidies on products are included. Output includes market output, output for own final use and other non-market output (output of individual non-market services produced by general government and non-profit institutions serving households and output of collective services produced by general government).

**Intermediate consumption** is given at purchasers' prices as the value of goods and services which are purchased by an individual producer in order to produce other goods and services. These comprise all goods with a lifetime of up to one year and a value up to EUR 500 if the lifetime is over one year, and services of current repair and maintenance which do not increase the value and lifetime of fixed assets.

**Value added** is valued at basic prices and equals the output at basic prices, reduced by intermediate consumption at purchasers' prices. Value added at basic prices for non-market producers equals the sum of compensation of employees and other taxes on production, less other subsidies on production, and the gross operating surplus in the amount of consumption of fixed capital.

**Gross domestic product** equals value added at basic prices by activities, increased by taxes on products, and reduced by subsidies on products. Gross domestic product thus equals the sum of value added at basic prices of all domestic (resident) production units and net taxes on products (taxes less subsidies on products).

The following data sources were used to compile the above-mentioned economic indicators: annual accounting statements of companies, sole proprietors, budgetary units, legal persons of private law and societies; the statistical trade survey; the labor-costs survey; and national accounts data.

Annual accounting statements include businesses in all sectors of the economy, including self-employed. They are available to the statistical office at the individual level. This enabled the compilation of economic indicators at the most detailed level of activities (up to the fifth digit level). The statistical trade survey was used to delimit those activities for which the fifth digit level did not provide the adequate level of detail for the identification of the copyright-based industries. For these activities, the delimitation was based on the structure of sales by products.

The labor costs survey was used as an additional data source for the calculation of the contribution of work based on special types of contracts. Due to specific income tax rules in Slovenia, income (royalties/fees) originating from contracts for a copyrighted work made for hire or other copyright-related contracts (i.e. contracts for the assignment of copyright) is taxed less than any other income, particularly in comparison with taxes and other duties imposed on employment or similar work contracts (and income deriving from them). Because of this, copyright work is often done under these types of contracts instead of employing more people. The value of copyright work done under these types of contracts was included in the study.

All data from data sources were adjusted in the same way as in the regular compilation of official national accounts aggregates (adjustments for non-reporting, misreporting, and conceptual and other adjustments). Results obtained are thus fully in line with and comparable to official national accounts data published by the statistical office. The only exception is illegal activities: they are included in the official gross domestic product but excluded in this study following the instructions of WIPO.

Economic indicators were calculated for all industries identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit (the most detailed) level. The classification used was the Standard Classification of Activities (SKD), which is the Slovenian version of the classification of economic activities in the European Union NACE Rev. 1.

Data sources, which were used for the compilation, refer to business entities (enterprises) and not to kinds of activities units (establishments). The compilation is thus based on the so-called organizational principle. With this principle, all transactions are allocated to an activity in which an enterprise is registered, i.e. to an activity in which it creates the majority of value added (main activity). Apart from the main activity, an enterprise can also perform one or more secondary activities which are different from the main activity. The calculation based on the establishment principle would take this fact into account and would probably be more correct for the delimitation of copyright-based industries. However, as data sources do not allow the calculation by the establishment principle, the organizational principle was used. Consequently, the data for individual copyright-based industries very likely encompass data for non-copyright-based industries. On the other hand, it can be argued that activities that are not included also partly encompass copyright-based activities. It can thus be concluded that the principle chosen for the compilation does not influence the reliability of the results obtained.

#### 4.2.2 *Employment*

The analysis of employment in copyright-based industries is based on data provided by the Statistical Office of the Republic of Slovenia. These are compiled in line with the European System of Accounts (ESA 1995), with available data sources, and taking into account the Standard Classification of Activities (SKD).

Employment includes all employees and self-employed performing production activities inside the production boundary. It covers all permanently employed people according to the domestic concept, and self-employed people together with unpaid family workers in agriculture and self-employed people in other household activities. Employment in national accounts also covers student work and other forms of part-time employment, employment in transport by sea on our ships, diplomatic and consular representatives abroad, enterprises without employment, etc.

The main data source for the employment estimate in national accounts is the Statistical Register of Employment. It covers people who have compulsory social insurance or are employed or self-employed in the territory of the Republic of Slovenia and who are at least 15 years old and not retired. Employment can be temporary or permanent, full time or part time. It includes persons temporarily out of work due to sickness or for any other reason, if social contributions are paid for them. The following categories are not included: persons performing temporary or occasional contract work, students' work, and conscripts. In national accounts the register data are adjusted to be in line with ESA 1995, e.g. students' work, contract work, employment in enterprises without employees and other adjustments are added.

Employment was calculated for all industries identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit (the most detailed) level. Employment from illegal activities was excluded from the results. Similar to the compilation of output, intermediate consumption and value added, the calculation of employment is based on the organizational principle. The estimates of all economic indicators are thus fully comparable and relate to the same observed population.

#### 4.2.3 *Foreign Trade*

Data on exports and imports of goods were obtained from the external trade statistics compiled by the Statistical Office of the Republic of Slovenia. Data for 2002 are based on customs declarations only (Single Administrative Document, SAD). Data for 2007 are based on two data sources: data on trade in goods between EU member states are collected from the statistical survey (Intrastat survey) and data on trade in goods with non-EU member states are based on customs declarations.

The observation unit in foreign-trade statistics is export and import shipment of goods, which is covered according to methodological recommendations. Foreign-trade statistics are monitored according to the special trade system (relaxed definition), which means that, besides regular import and export transactions, inward and outward processing, as well as processing carried out in customs-free trade zones, are included.

Contrary to output, intermediate consumption, value added and employment, exports and imports of goods are shown according to the activity to which the goods belong and not according to the activity of the enterprise which exported or imported the goods. Data thus show exports and imports of goods belonging to activities identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit level, as described above for other economic indicators.

#### 4.2.4 *Supplementary Secondary Data*

In addition to the core analytical part of the study – analysis of output, employment, value added, and foreign trade of copyright-based industries in Slovenia – which is a standard and comparable part of all studies based on the WIPO methodology, this study includes an analysis of other data that reflect the trends in selected copyright-based industries in more detail (Section 5.8). The core problem of our research team in this respect was obtaining relevant additional data from the industries. For example, in the music industry, professional organizations or collective management organizations do not provide industry data on sold records. The data sources for this section are thus from the SI-Stat Data Portal<sup>17</sup> and official publications of the Statistical Office of the Republic of Slovenia.

<sup>17</sup> See <http://www.stat.si>



#### 4.2.5 Copyright Factors and Primary Data

In the process of measuring the economic contribution of the copyright-based industries, the WIPO methodology refers to the introduction of the copyright factor. The methodology defines it as follows: "The weighting of the portion of a specific industry that can be attributed to copyright or the level of dependence on copyright has been referred to in some of the surveys as the copyright factor. It has to be done in relation to all industries that are not core copyright-based industries where the contribution will be counted as 100%" (WIPO Guide, page 57). In addition to a percentage, the weighting can also be expressed by a number with a value between 0 and 1, where 1 (or 100 percent) is accepted for the core industries. The values of the main economic indicators – value added, number of employees, gross product, etc. – are multiplied by this number (or percentage).

The methodology assigns the copyright factors for each of the copyright-based industries. The industries that belong to the core copyright industries have a copyright factor of 1. However, there is a debate about whether the interdependent group of industries should have a copyright factor of 1. Some of the researches in other countries adopted a copyright factor of 1 for the interdependent industries, because these are closely integrated in the creation, distribution and use of the products of the core copyright industries and a large part of the value added they create is directly related to those industries. The second questionable group in terms of the copyright factor it is assigned is the partial industries. A solution for the group of non-dedicated industries has been found by the recalculation of the economic distribution of the fourth group – non-dedicated support industries. The contribution to copyright for this group is weighted as being equal to the share of the first three groups (core, interdependent and partial) in the national GDP or the GVA. For example: if the industries in the first three groups generate in total 5 percent of GDP, the copyright factor of the non-dedicated industries will be 0.05.

In the case of the Slovenian study, we adopted the following copyright factors:

- core industries: copyright factor 1.
- interdependent and partial industries: the copyright factors used in the Croatian study, which were in turn used in the Hungarian study. We did however collect primary data and corrected the copyright factors for the paper industry and architecture (the primary data collection process and the reasons for that are explained before this section).
- non-dedicated industries: copyright factors calculated as the share of the first three groups in the national GDP, as explained above.

In order to improve the project results, primary data were collected. We conducted two types of qualitative research:

- interviews with representatives of the paper and architecture industries based on the semi-structured questionnaire (Table 26 in the Appendix) and
- group discussions of the project results and overall situation in the copyright-based industries in Slovenia with a panel of industry representatives and experts.

The purpose of conducting the interviews was to get information that would improve the decision on copyright factors for specific industries in the interdependent and partial groups of industries. As a general rule, we applied copyright factors determined in the Croatian WIPO study. The copyright factors from the Croatian study were also used in the Hungarian study and we estimated that those copyright factors were the most appropriate for the Slovenian study. However, due to country specifics, we decided to conduct interviews with experts from the paper industry and architecture, because the copyright factors for those industries in the Croatian and Hungarian studies were not estimated to be relevant for Slovenia. In total, four interviews were conducted in August and September 2009.

In the Croatian and Hungarian studies, the copyright factor assigned for the paper industry, which is part of the interdependent group of industries, was 1.000. The question was: is it appropriate that industries that belong to the group of interdependent industries have the same impact factor as industries in the group of core industries? In the case of Slovenia, the paper industry generated the most output, value added and employment in the group of interdependent industries in absolute and relative numbers. It was, however, questionable whether all economic activities in this industry were related to copyright. In order to resolve this question, we conducted interviews with two experts employed by two large companies from the paper industry in Slovenia (see Table 26 in the Appendix for the semi-structured questionnaire used for



this purpose). The results of interviews showed that in the case of Slovenia a copyright factor of 1.000 for the paper industry was overestimated, and consequently a lower copyright factor of 0.700 was assigned. The results of the interviews showed that the majority – but not all – of the production, value added and employment was related to copyright.

In the case of architecture, the estimations were that the copyright factor of 0.100 from the Croatian and Hungarian studies was underestimated. We conducted the same qualitative survey based on the semi-structured questionnaire with two architecture bureaus, and based on the interviews assigned a higher copyright factor of 0.250 for this industry.

Based on our experience, the approach that was chosen was the most efficient. Quantitative studies would get better results, but they are financially challenging and time consuming. The case of Singapore, which did enormous work, showed that results do not significantly vary from the existing copyright factors used in previous studies. That is why we believe that the best way to improve the methodology and results is to follow the country specifics and based on the interviews with company representatives improve the copyright factors for the “questionable” industries.

The results of the project and estimated economic indicators were the subject of the group discussions on the overall situation in the copyright-related industries in Slovenia with the panel of representatives and experts. The members of the panel were: writers (2), musicians (2), photographers (2), journalists (2), a representative of TV (1), an advertising producer (1), publishers (2) and a representative of the software industry (1). The purpose of the qualitative research was to get information from industry experts that could help the researchers to better understand the situation in the copyright-based industries and comment on the results.

Table 1 presents the copyright factors adopted for each industry.

**Table 1: Copyright Factors Adopted in the Slovenian Study**

CORE INDUSTRIES		Copyright Factor
PL	Press and literature	1.000
M	Music, theatrical productions, opera	1.000
FV	Film and video	1.000
PH	Photography	1.000
VGA	Visual and graphic arts	1.000
RT	Radio and television	1.000
SD	Software and databases	1.000
AD	Advertising	1.000
PO	Professional organizations	1.000
INTERDEPENDENT INDUSTRIES		
TV	TV sets, radio sets, VCRs, CDs, cassettes, and other equipment	1.000
CE	Computers and equipment	1.000
PHM	Photocopiers	1.000
MI	Musical instruments	1.000
PCI	Photographic and cinematographic instruments	1.000
UNM	Unrecorded media	1.000
PAP	Paper	0.700
PARTIAL INDUSTRIES		
APP	Apparel, textiles, footwear	0.006
JEW	Jewelry and coins	0.200
CRT	Other crafts	0.400
FUR	Furniture	0.050
HHG	Household goods, china and glass	0.005
WALL	Wall coverings and carpets	0.040
TOY	Toys and games	0.400
ARCH	Architecture, engineering, surveying	0.250

**Table 1: Copyright Factors Adopted in the Slovenian Study (continued)**

INT	Interior design	0.100
MUS	Museums	0.500
NON-DEDICATED INDUSTRIES		
WHRT	General wholesale and retailing	0.0454
TRAN	General transportation	0.0454
TI	Telecommunications and internet	0.0454

### 4.3 Data Analysis and Presentation

After the collection of secondary and primary data, we analyzed the data and presented the results. The analysis is divided into groups of copyright industries: core, interdependent, partial and non-dedicated. The most detailed analysis was made for the core industries. For all groups, average annual growth rates and productivities were calculated. We also compared the data for 2002 and 2007 and commented on the changes. Within the analysis, we focused on the industries that experienced the most significant changes and tried to discuss them. Finally, results were shown in an international perspective and compared with the results from other countries.

## 5. Economic Contribution of the Copyright-Based Industries

This chapter presents the research findings based on the WIPO methodology. Section 5.1 gives a total overview of the results; sections 5.2 through 5.5 analyze the direct economic contribution of copyright-based industries by groups; section 5.6 compares the results to other national WIPO studies; section 5.7 presents the total economic contribution of copyright-based industries, including both the direct and indirect contributions; and section 5.8 contains a more in-depth analysis of past developments and trends in selected copyright-based industries.

### 5.1 Copyright-Based Industries in Slovenia

The results of our study, based on the WIPO methodology, show that the economic contribution of copyright-based industries in Slovenia is certainly not negligible. Overall, it can be said that the direct economic contribution of these industries, as defined in the Methodology section, represents around 5 percent of the national economy and is comparable to the economic contributions of public administration and education. Copyright-based industries were less productive than the average industry in Slovenia and were similar to wholesale and retail trade in this respect. In total, the importance of copyright-based industries did not change dramatically in the period between 2002 and 2007: they employed absolutely and relatively more people in 2007 than in 2002 and produced a relatively smaller share of national output, but their share of value added in national GDP remained the same. The productivity of copyright-based industries increased in this period, but at a much slower rate than in the average Slovenian industry. In the following sections, we present a detailed analysis of the economic contribution of copyright-based industries.

#### 5.1.1 Overview

Copyright-based industries directly contributed to the Slovenian economy in 2007 (Table 2):

- EUR 4.2 billion in production output (5.8 percent of national production output);
- EUR 1.7 billion in value added (5.8 percent of national value added and 5.1 percent of national GDP);
- 54,506 jobs (6.8 percent of national employment); and
- the average productivity of copyright-based industries in 2007 – measured in terms of nominal value added per employee – was EUR 32,025.

**Table 2: Economic Contribution of Copyright-Based Industries in 2007**

Copyright-based industry	Output (EUR mill.)		Value Added (EUR mill.)			Employment		Productivity
	2007	%	2007	% VA	% GDP	2007	%	EUR
Core	2,612.0	3.7%	1,150.3	3.8%	3.3%	36,603	4.6%	31,427
Interdependent	631.0	0.9%	216.0	0.7%	0.6%	6,573	0.8%	32,859
Partial	478.8	0.7%	187.0	0.6%	0.5%	5,745	0.7%	32,540
Non-dedicated	433.3	0.6%	192.3	0.6%	0.6%	5,585	0.7%	34,434
Total copyright-based	4,155.0	5.8%	1,745.5	5.8%	5.1%	54,506	6.8%	32,025
Slovenian economy	71,335.7	100.0%	30,231.2	100.0%	100%	796,333	100.0%	37,963

Table 2 shows the indicators of the economic contribution of copyright-based industries for 2007. The production output is given in millions of EUR and as a percentage of total Slovenian production output. Value added is given in millions of EUR, as a percentage of total national value added (% VA) and also as a percentage of national gross domestic product (% GDP). Employment is given as the number of people employed and as percentages of total Slovenian employment. Productivity is calculated by using current prices (2007) and given in EUR. Other tables in this chapter present data in a similar form.

Since this is the first Slovenian study of copyright-based industries, we have also analyzed data for 2002 to obtain information about the dynamics and trends in these industries (Table 3). By 2007, their economic results had increased in absolute (nominal) terms:

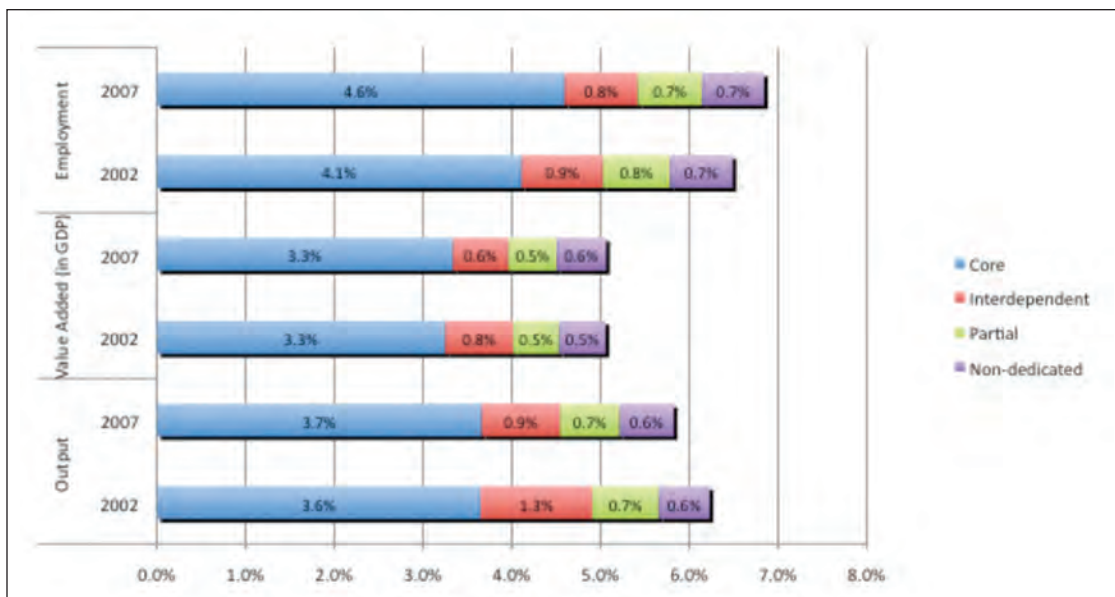
- the output was higher by EUR 1.4 billion (48 percent);
- value added was higher by EUR 576 million (49 percent);
- employment was higher by 5,527 jobs (11 percent);
- and average productivity was higher by EUR 8,142 (34 percent) compared to five years before.

**Table 3: Economic Contribution of Copyright-Based Industries in 2002**

Copyright-based industry	Output (EUR mill.)		Value Added (EUR mill.)			Employment		Productivity EUR
	2002	%	2002	% VA	% GDP	2002	%	
Core	1,640.4	3.6%	751.8	3.7%	3.3%	31,034	4.1%	24,226
Interdependent	566.4	1.3%	176.9	0.9%	0.8%	6,917	0.9%	25,580
Partial	337.1	0.7%	120.3	0.6%	0.5%	5,698	0.8%	21,118
Non-dedicated	256.9	0.6%	120.7	0.6%	0.5%	5,330	0.7%	22,643
Total copyright-based	2,800.8	6.2%	1,169.8	5.8%	5.1%	48,978	6.5%	23,883
Slovenian economy	44,958.5	100.0%	20,145.9	100.0%	00%	754,735	100.0%	26,693

However, in 2007 copyright-based industries were relatively less important in terms of output than in 2002 (a decrease of 0.4 percentage points, Chart 2), but they employed relatively more people than in 2002 (an increase of 0.3 percentage points). The relative contributions to national value added and to national GDP have remained practically unchanged.

**Chart 2: Changes in Economic Contribution of Copyright-Based Industries between 2002 and 2007**



The contribution to employment increased mainly because core copyright industries employed absolutely and relatively more people. The drop in output share originated mainly in interdependent, but also in partial industries. Although these industries produced more in absolute terms, the increase was smaller than elsewhere in the Slovenian economy, thus the share of their output in national output dropped. Other economic indicators of the contributions from the four groups of copyright-based industries remained quite stable.

Core copyright industries created 3.7 percent of aggregate output and their value added represented 3.3 percent of GDP in 2007. Compared to 2002, these shares did not change much; on the other hand, the share of employment by core copyright industries increased by 0.5 percentage points and had reached 4.6 percent in 2007. This large increase was mainly the result of higher employment in the software and

database industry. Interdependent industries contributed around 0.9 percent of national employment and output, but only 0.6 percent of GDP in 2007. The shares of interdependent industries have dropped for all economic indicators; most notably, the share of output dropped by 0.4 percentage points. The main reason for this was the negative trend in the paper industry. The contribution of partial industries was overall slightly smaller than the contribution of interdependent industries: in 2007 the former represented 0.7 percent of national employment, 0.5 percent of value added and 0.7 percent of output. Compared to 2002, the contributions to value added and output have remained the same, while the contribution to employment dropped by 1 percentage point. Also, the contribution of non-dedicated industries to national employment remained the same, at 0.7 percent. The contribution of these industries to value added and output was smaller and in general stable at around 0.6 percent of national categories.

To estimate dynamics in the period analyzed, real growth rates for output, value added, and productivity were calculated by deflating the nominal values in 2007 with the GDP deflator<sup>18</sup> for the period 2002 to 2007 (Table 4). Annual real growth rates for copyright-based industries were thus as follows:

- output increased annually on average by 3.1 percent in real terms;
- value added increased annually on average by 3.2 percent in real terms;
- employment increased annually on average by 2.2 percent; and
- productivity increased annually on average by 1 percent in real terms.

**Table 4: Average Annual Real Growth Rates for Copyright-Based Industries in 2002 – 2007**

Copyright-based industry	Average Annual Real Growth, 2002 – 2007			
	Output	Value Added	Employment	Productivity
Core	4.6%	3.7%	3.4%	0.4%
Interdependent	-2.6%	-0.8%	-1.0%	0.2%
Partial	2.2%	4.1%	0.2%	3.9%
Non-dedicated	5.8%	4.6%	0.9%	3.6%
Total copyright-based	3.1%	3.2%	2.2%	1.0%
Slovenian economy	4.5%	3.3%	1.1%	2.2%

Note: GDP deflator for 2002 – 2007 is 127.3.

In the period 2002 to 2007, value added in the copyright-based industries increased at a similar rate to value added in the Slovenian economy as a whole. At the same time, the output of copyright-based industries increased at a lower rate than the total economy. This indicates that there was a structural change in the activity of copyright-based industries in this period: industries that create higher value-added goods have expanded more and became economically more important, while more voluminous, mature industries producing low value-added goods grew weaker. The highest real growth rates for output and value added were for core and non-dedicated industries: output increased by 4.6 percent and 5.8 percent while value added increased by 3.7 percent and 4.6 percent respectively. Interdependent industries, however, experienced in real terms a drop in output by 2.6 percent and in value added by 0.8 percent. As further analysis shows, the main propulsive core copyright industries are software and databases and advertising, while the largest mature interdependent industry is the paper industry.

The productivity of copyright-based industries increased on average by 1 percent per year, which is less than half of the productivity growth rate of the total Slovenian economy. Among the four groups of industries, the productivity of core and interdependent industries increased only slightly (on average by 0.4 and 0.2 percent per year, respectively), while partial and non-dedicated industries experienced on average a 3.9 percent and a 3.6 percent annual increase respectively, which was more than the average rate in the Slovenian economy.

### 5.1.2 Distribution of Copyright-Based Industries

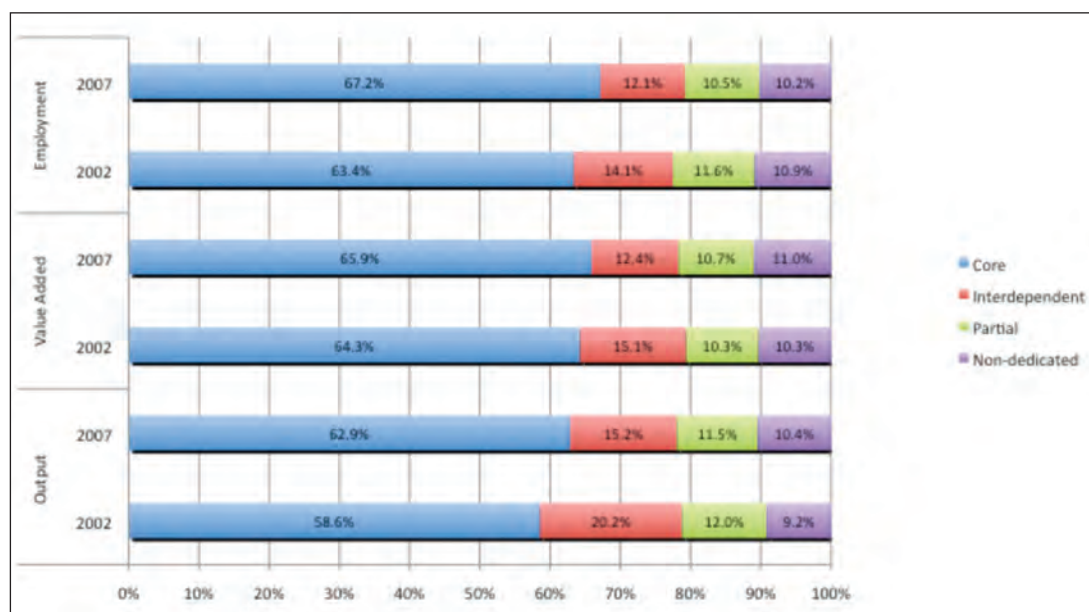
Overall, we can see that the importance of core copyright industries, which were already the most important group of copyright-based industries in 2002, increased to the detriment of interdependent industries, while the importance of partial and non-dedicated industries remained virtually unchanged.

<sup>18</sup> GDP deflator is the implicit price deflator for the GDP, calculated as the ratio between real and nominal GDP x 100, which measures the price level change in the economy.



Within total copyright-based industries, the economic contribution of core copyright industries is the highest, increasing from 2002 to 2007 according to all three economic indicators. In 2007, these industries overall contributed almost two thirds of the total economic performance of copyright-based industries (Chart 3). Five years before, the contribution of core copyright industries was smaller and closer to 60 percent. In both years, the contribution to total copyright-based output was slightly smaller than the contribution to value added and employment.

**Chart 3: Distribution of Economic Contribution of Copyright-Based Industries in 2002 and 2007**



Interdependent industries, however, have reduced their relative contribution to total employment and value added by roughly 2.5 percentage points and to output by 5 percentage points. In 2002, these industries represented 14.1 percent of employment and 15.1 percent of value added, but this share decreased to around 12 percent in 2007 for both indicators. Interdependent industries had a relatively larger contribution to output than to other indicators of economic performance. The share of those industries in total copyright-based industries dropped from 20.2 percent in 2002 to only 15.2 percent in 2007.

Partial and non-dedicated industries had more stable contributions. Overall, we can say that partial industries represent around 11 percent and non-dedicated industries around 10 percent of the total economic contribution of copyright-based industries.

### 5.1.3 Industry Comparison

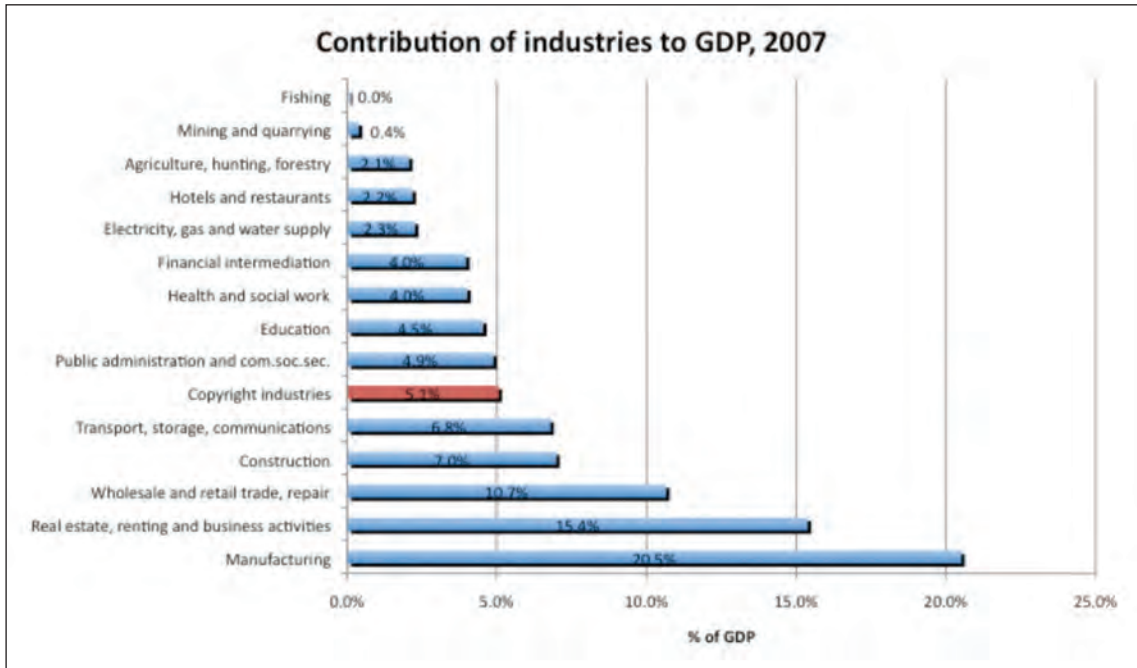
The economic importance of copyright-based industries is best understood by comparing their contribution to national aggregates to the contributions made by other industries. Activities selected for comparison were chosen based on data readily available from the Statistical Office of the Republic of Slovenia. We were able to compare the share of value added in GDP, the share of national employment, and productivity, calculated as value added per employee.<sup>19</sup>

Based on the comparison of value added in GDP, we can say that the contribution of copyright-based industries – 5.1 percent, obtained by using the WIPO methodology – is similar to the contributions of public administration (4.9 percent) and education (4.5 percent), and close to health and social work (4 percent) and financial intermediation (4 percent) (Chart 4). Copyright-based industries contributed more to GDP than fishing; mining; agriculture; hotels and restaurants; and electricity, gas and water supply.

<sup>19</sup> We must notify the reader that the data aggregation for other industries is based on allocation of enterprises according to an activity in which an enterprise is registered, i.e. to an activity in which it creates the majority of value added (main activity). Data aggregation for copyright-based industries is based on the WIPO methodology, which follows the chain of direct effects of core creative activities in the total economy. Since these concepts are different, the comparisons should be seen only as illustrations of the relative position of copyright-based industries.



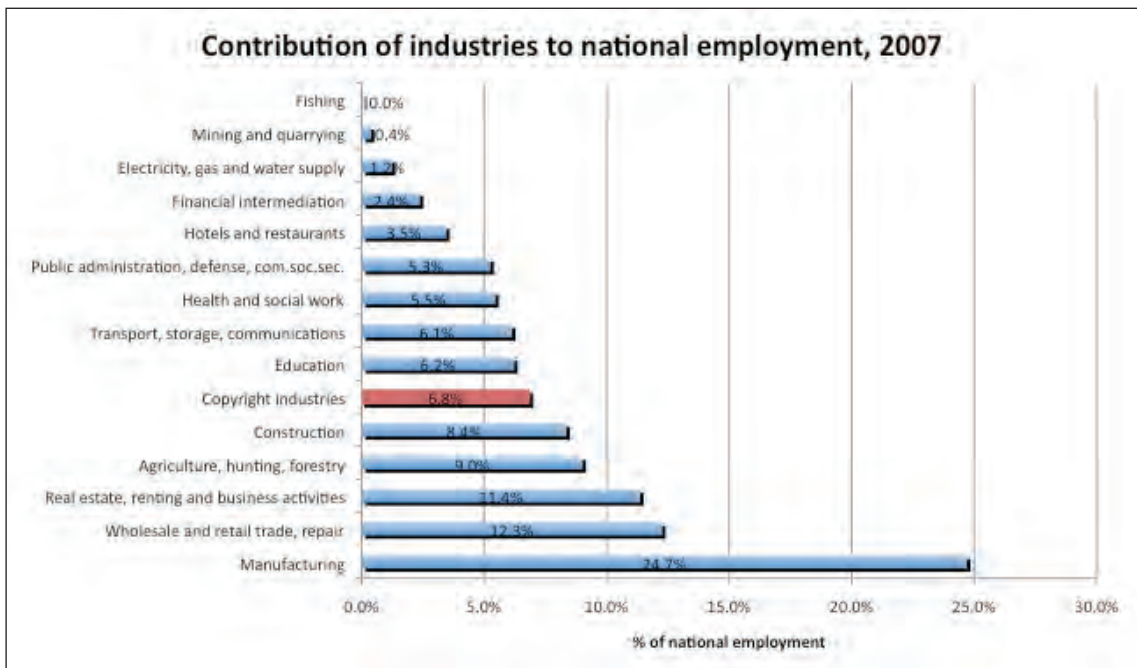
**Chart 4: Comparison of Contributions Based on % of Value Added in GDP, 2007**



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

When employment is used as an indicator of economic performance, we can see that copyright-based industries enjoyed a similar share of employment (6.8 percent) as education (6.2 percent); transport, storage and communication (6.1 percent); health and social work (5.5 percent); and public administration (5.3 percent) (Chart 5). Copyright-based industries employed more people than fishing; mining; electricity, gas and water supply; financial intermediation; and hotels and restaurants.

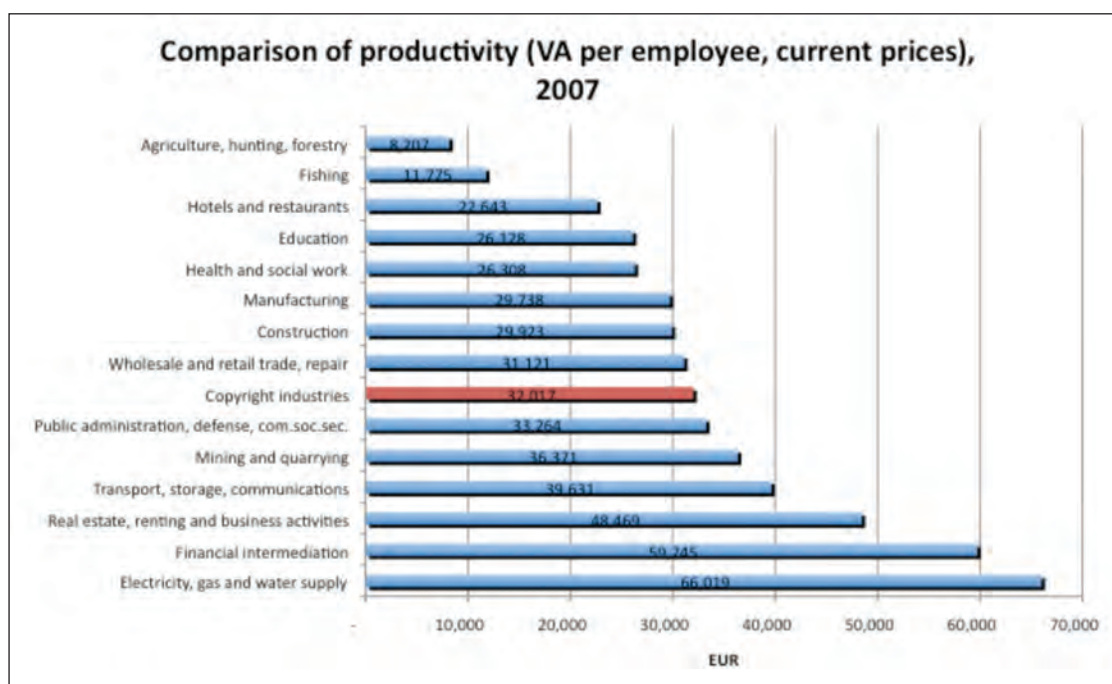
**Chart 5: Comparison of Contributions Based on % of Employment in National Employment, 2007**



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

In 2007, copyright-based industries had a similar productivity (EUR 32,017 per employee) to public administration (EUR 33,264 per employee); wholesale and retail trade (EUR 31,121 per employee); construction (EUR 29,923 per employee); and manufacturing (EUR 29,738 per employee) (Chart 6).

**Chart 6: Comparison of Productivity Measured in Terms of Nominal VA per Employee, 2007**



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

Industries that were much less productive than copyright-based industries included agriculture; fishing; hotels and restaurants; education; and health and social work.

#### 5.1.4 Foreign Trade

The foreign-trade balance of copyright-based industries in 2007 was negative, meaning that imports in copyright-based industries were higher than exports.

Total imports in copyright-based industries in 2007 amounted to EUR 1,018.8 million. In terms of imports, the most important group of industries was the interdependent industries. This group generated 87 percent of all copyright-based industries' imports. Core industries created 7.1 percent of all copyright-based industries' imports, while partial industries generated 6 percent.

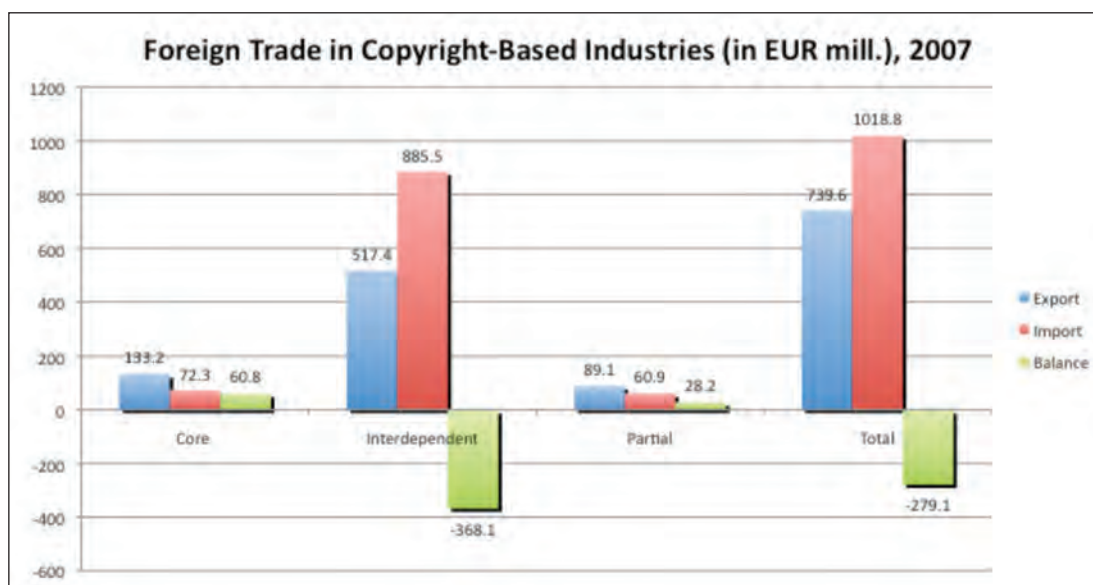
Total exports in copyright-based industries in 2007 amounted to EUR 739.6 million. Interdependent industries generated 70 percent of all copyright-based industries' exports, core industries generated 18 percent and partial industries generated 12 percent (Table 5).

**Table 5: Foreign Trade of Copyright-Based Industries in 2007**

Copyright-based industry	Imports 2007 (EUR mill.)		Exports 2007 (EUR mill.)	
	2007	%	2007	%
Core	72.3	7.1%	133.2	18.0%
Interdependent	885.5	86.9%	517.4	70.0%
Partial	60.9	6.0%	89.1	12.0%
Non-dedicated	0.0	0.0%	0.0	0.0%
Total copyright-based	1,018.8	100.0%	739.6	100.0%

The trade balances for core, interdependent, partial and total copyright-based industries are presented in Chart 7.

**Chart 7: Foreign Trade and Balance in Copyright-Based Industries in 2007**



As we can see, we have a trade surplus in the group of core industries, meaning that exports in the group of core industries were higher than imports. The surplus in 2007 in the group of core industries was EUR 60.8 million. In the group of interdependent industries in 2007 we recorded a trade deficit, meaning that imports were higher than exports. The deficit was EUR 368.1 million. In the group of partial industries, exports were higher than imports and the trade balance was positive and amounted to EUR 28.2 million in 2007.

In total, due to the high deficit in the group of interdependent industries, the copyright-based industries' trade balance was in deficit in 2007, meaning that in Slovenia imports of copyright-based goods were higher than exports of those goods. The total deficit in 2007 was EUR 279.1 million.

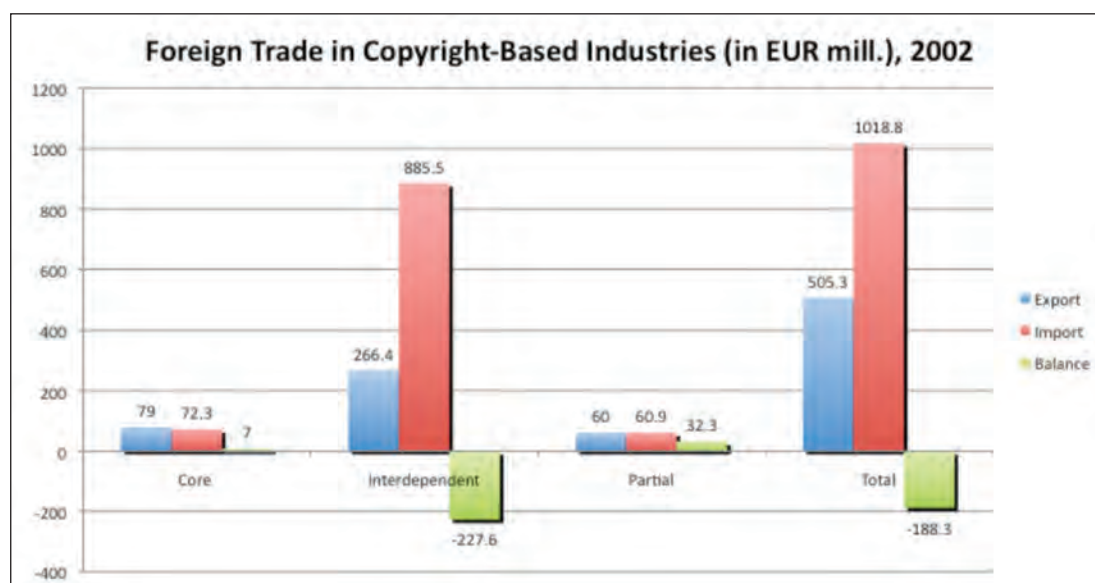
The data on foreign-trade statistics for copyright-based industries in 2002 are presented in Table 6. Total imports in copyright-based industries in 2002 amounted to EUR 693.6 million, while total exports amounted to EUR 505.3 million. The situation in 2002 was similar to that in 2007; the most important group of industries in terms of imports and exports was the interdependent industries.

**Table 6: Foreign Trade of Copyright-Based Industries in 2002**

Copyright-based industry	Imports 2002 (EUR mill.)		Exports 2002 (EUR mill.)	
	2002	%	2002	%
Core	72.0	10.4%	79.0	15.6%
Interdependent	594.0	85.6%	366.4	72.5%
Partial	27.7	4.0%	60.0	11.9%
Non-dedicated	0.0	0.0%	0.0	0.0%
Total copyright-based	693.6	100.0%	505.3	100.0%

The trade balance in copyright-based industries in 2002 was negative and amounted to EUR 188.3 million. A slight trade surplus was recorded in the group of core and partial industries, while a substantial deficit was present in the interdependent group of industries. The trade balance for copyright-based industries in 2002 is presented in Chart 8.

**Chart 8: Foreign Trade and Balance in Copyright-Based Industries in 2002**



Since most of the import and export activities were generated by the interdependent group of industries, we examined this group further in order to find an explanation for the trade-balance deficit that was generated by copyright-based industries. The reason for the negative balance in 2007 was the high volume of imports in the following industries:

1. TV sets, radio sets, VCRs, CDs, cassettes and other equipment. Exports in this industry in 2007 were EUR 86 million, imports were EUR 272 million, and so the deficit was EUR 185.8 million.
2. Computers and equipment. Exports in this industry in 2007 were EUR 62.5 million, while imports were EUR 267 million, and so the deficit was EUR 204.5 million.

Slovenian producers from those industries do not have competitive advantages in comparison to the companies from USA, China, Korea, etc., where most imports come from, and we do not expect that this situation will improve in the coming years.

## 5.2 Core Copyright Industries

Core copyright industries include those industries that are most directly engaged in the “creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sale of works and other protected matter” (WIPO Guide, p. 29). These industries are mainly related to different fields of culture, but also to media, advertising and software, where copyright-protected content is also large. All industries in this group are given a copyright factor of 1. More specifically, core copyright industries are:

- Press and literature
- Music, theatrical productions and opera
- Film and video
- Photography
- Visual and graphic arts
- Radio and television
- Software and databases
- Advertising
- Copyright collecting organizations

Table 25 in the Appendix gives an overview of industries included in this group by their statistical codes. Mixed industries were divided by using trade statistics data, by inspecting data at lower-level class codes or individual company level (where possible), or by applying expert opinion. In the case of copyright collecting organizations, data was checked at individual entity level to determine the proper ratio, reflecting only the contributions of organizations involved in copyright management.

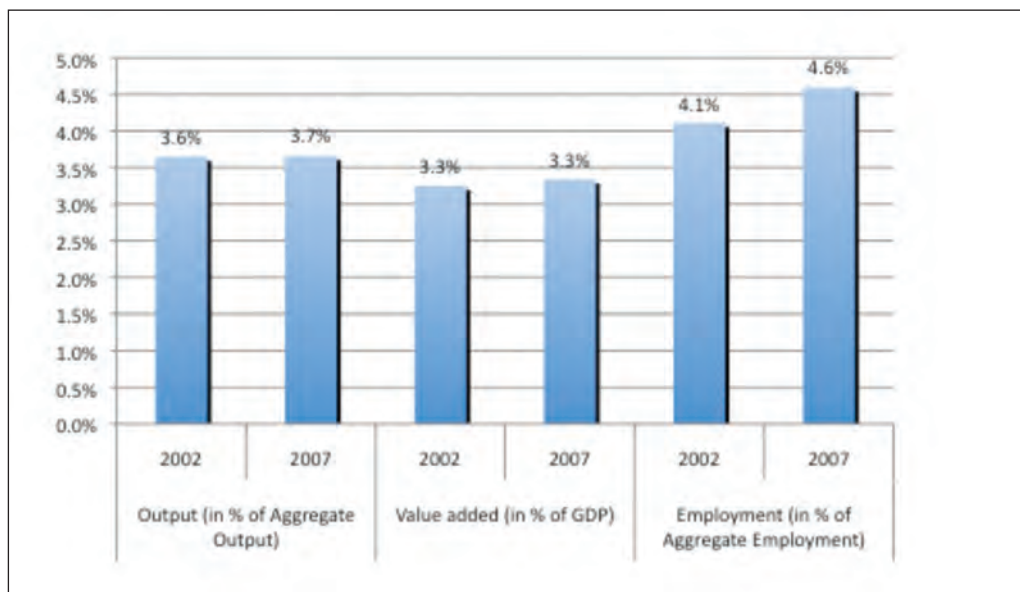


### 5.2.1 Overview

The economic contribution of core copyright industries in 2002 and 2007 was in general between 3.3 to 4.6 percent of the entire national economic performance and it is summarized in Chart 9:

- these industries generated an output of EUR 2.6 billion in 2007 and they accounted for 3.7 percent of aggregate output. Compared to 2002, the contribution to aggregate output increased by 0.1 percentage point;
- the value added of core copyright industries was EUR 1.2 billion in 2007, which represented 3.3 percent of GDP. Compared to 2002, its contribution to GDP did not change significantly;
- core copyright industries also employed many more people in 2007 than in 2002. In 2007, 36,603 people were employed in these industries, which accounted for 4.6 percent of aggregate employment. This was 0.5 percentage points more than in 2002.

**Chart 9: Relative Size of Core Copyright Industries in 2002 and 2007**



The contribution of core copyright industries to aggregate employment is higher than its contribution to aggregate value added or output. This means that the productivity of core copyright industries is below the productivity of the average Slovenian industry. Because employment in core copyright industries increased less than output (a 4.6 percent annual real increase) and value added (a 3.7 percent annual real increase), the productivity of these industries increased slightly by 0.4 percent per year (Table 4).

### 5.2.2 Output

Based on output, core copyright industries can be divided into three groups, based on their sizes. In the first group we find the three most important core copyright industries, which were in both years (in descending order):

- Press and literature;
- Software and databases; and
- Advertising.

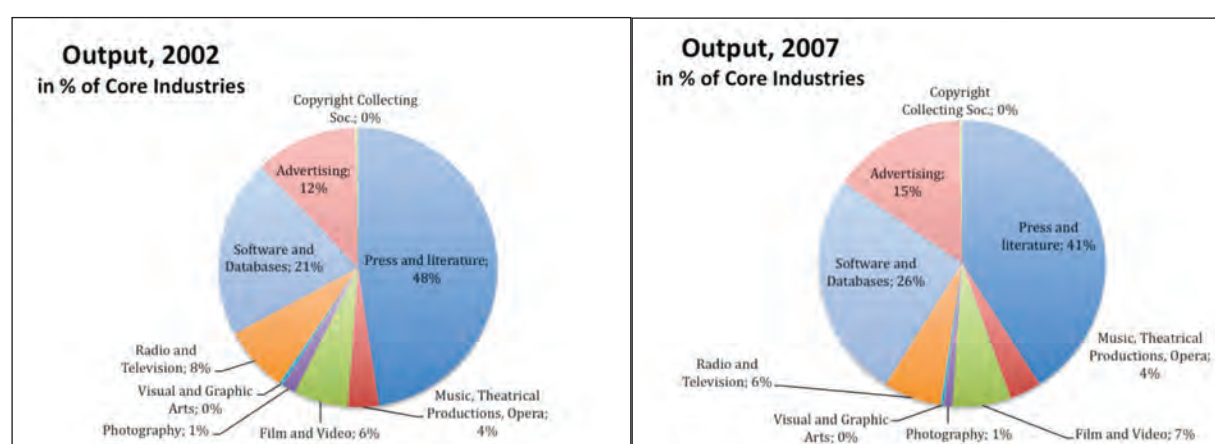
**Table 7: Detailed Output of Core Copyright Industries**

Core	Output (mill. EUR)						Average annual real growth
	2002	% of total copyright-based	% of core	2007	% of total copyright-based	% of core	
Press and literature	780.7	27.9%	47.6%	1,068.9	25.7%	40.9%	1.5%
Music, theatrical productions, opera	59.0	2.1%	3.6%	93.1	2.2%	3.6%	4.4%
Film and video	103.5	3.7%	6.3%	172.5	4.2%	6.6%	5.5%
Photography	26.0	0.9%	1.6%	25.1	0.6%	1.0%	-5.4%
Visual and graphic arts	7.3	0.3%	0.4%	9.4	0.2%	0.4%	0.4%
Radio and television	125.4	4.5%	7.7%	170.7	4.1%	6.5%	1.3%
Software and databases	337.9	12.1%	20.6%	669.8	16.1%	25.6%	9.3%
Advertising	195.2	7.0%	11.9%	394.3	9.5%	15.1%	9.7%
Copyright collecting soc.	5.5	0.2%	0.3%	8.1	0.2%	0.3%	3.1%
Total core industries	1,640.4	58.6%	100.0%	2,612.0	62.9%	100.0%	4.6%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

In 2002, they jointly generated EUR 1.3 billion in terms of output, which accounted for 80.1 percent of core copyright industry output and 47 percent of total copyright-based industries' output (Table 7). In 2007, the contribution of these three industries increased absolutely and relatively: they generated EUR 2.1 billion in output, which accounted for 81.7 percent of total core industries' output and 51.3 percent of total copyright-based industries' output.

Press and literature was the most important industry in both years. In 2007, when its output was EUR 1,069 million, it represented a quarter of total copyright-based industries' output and 41 percent of core copyright industries' output. Although its output rose on average by 1.5 percent per year in this period (in real terms), its relative importance has decreased since 2002, when it represented 47.6 percent of core copyright industries' output (Chart 10).

**Chart 10: Output Structure of Core Copyright Industries**



With EUR 669.8 million in output in 2007, software and databases was the second most important industry. Its output increased on average by 9.3 percent per year (in real terms) in this period and its relative importance increased from 20.6 percent to 25.6 percent of core copyright industries' output. Unlike most other core copyright industries, which are typically limited to the Slovenian-speaking market, this industry also expanded internationally, focusing mainly, but not exclusively, on South-Eastern Europe.



Advertising was third, with EUR 394.3 million or 15.1 percent of core copyright industries' output. Compared to 2002, its output increased on average by 9.7 percent per year and its relative contribution increased by more than 3 percentage points.

The next group of core copyright industries is formed by core industries of medium importance for Slovenian copyright-based industries: film and video; radio and television; and music, theatrical productions, and opera. Together, these industries created EUR 287.9 million of output in 2002 and increased their production to EUR 436.3 million by 2007. Although the total share of these industries in the output of core copyright industries dropped by 0.8 percentage points (from 17.5 to 16.7 percent), their share in total copyright-based industries slightly increased (from 10.3 to 10.5 percent).

Other remaining industries (photography; visual and graphic arts; and copyright collecting organizations) had a very small contribution in both years. In 2007, they generated together EUR 42.7 million, which represented 1.6 percent of core copyright industries' output. The share of these industries decreased from 2002, when it was 2.4 percent.

### 5.2.3 Value Added

When value added is used as a measure of economic performance, the three most important industries are (in descending order):

- Press and literature;
- Software and databases;
- Radio and television.

Their combined value added in 2007 was EUR 932 million and represented 2.7 percent of GDP (Table 8). Within core copyright industries' value added, these three industries generated around 81 percent in both years. However, there was a large gap between the top two most important industries and radio and television.

**Table 8: Detailed Value Added of Core Copyright Industries**

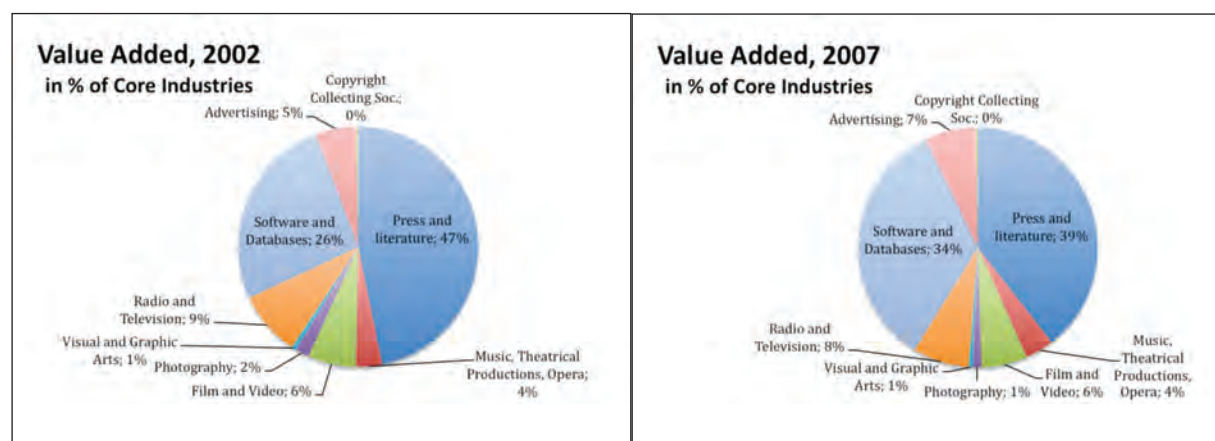
Core	Value Added (mill. EUR)								Average annual real growth
	2002	% of total copyright-based	% of core	% of GDP	2007	% of total copyright-based	% of core	% of GDP	
Press and literature	351.9	30.1%	46.8%	1.5%	454.0	26.0%	39.5%	1.3%	0.3%
Music, theatrical productions, opera	26.6	2.3%	3.5%	0.1%	44.3	2.5%	3.8%	0.1%	5.5%
Film and video	48.6	4.2%	6.5%	0.2%	71.5	4.1%	6.2%	0.2%	2.9%
Photography	14.1	1.2%	1.9%	0.1%	13.8	0.8%	1.2%	0.0%	-5.2%
Visual and graphic arts	4.8	0.4%	0.6%	0.0%	5.9	0.3%	0.5%	0.0%	-0.8%
Radio and television	65.5	5.6%	8.7%	0.3%	87.4	5.0%	7.6%	0.3%	0.9%
Software and databases	196.7	16.8%	26.2%	0.9%	390.6	22.4%	34.0%	1.1%	9.3%
Advertising	41.0	3.5%	5.5%	0.2%	79.2	4.5%	6.9%	0.2%	8.7%
Copyright collecting soc.	2.5	0.2%	0.3%	0.0%	3.6	0.2%	0.3%	0.0%	2.4%
Total core industries	751.8	64.3%	100.0%	3.3%	1,150.3	65.9%	100.0%	3.3%	3.7%
Total copyright-based industries	1,169.8	100.0%	–	5.1%	1,745.5	100.0%	–	5.1%	3.2%

Press and literature was the key core copyright industry, having the largest value added in both years. In 2007, this industry generated EUR 454 million of value added, which accounted for 39.5 percent of core copyright industries' value added and 1.3 percent of GDP. In real terms, the value added of this industry remained practically unchanged, with a mere 0.3 percent average annual increase. Its relative importance decreased from 2002 in favor of software and databases (Chart 11). The latter industry was the second most important and had EUR 390.6 million of value added in 2007. Its share in total core copyright industries' value added

and GDP was almost equal to that of press and literature. Compared to 2002, its value added increased in real terms by 9.3 percent per year.

Other industries had much smaller value added compared to press and literature and software and databases. Radio and television created EUR 87.4 million of value added, while advertising created EUR 79.2 million of value added and film and video followed with EUR 71.5 million of value added. Each of the three industries contributed around 0.2 percent to GDP and between 6.2 percent (film and video) and 7.6 percent (radio and television) of core copyright industries' value added.

**Chart 11: Value Added Structure of Core Copyright Industries**



Compared to 2002, only the relative importance of advertising increased out of these three industries. Advertising was relatively less important when economic performance is measured in value added terms rather than in output, but it has experienced a strong real growth in value added of 8.7 percent per year. On the other hand, radio and television is relatively more important when value added is used to measure economic performance; however, this seems to be a more mature industry, with a moderate 0.9% average annual real growth rate of value added over the analyzed period. Music, theatrical productions, opera, with EUR 44.3 million in value added, was slightly less important than the above-mentioned industries, but its share in the value added of core and total copyright-based industries slightly increased.

The remaining industries (visual and graphic arts; photography; and copyright collecting organizations) together produced EUR 23.3 million in 2007, which accounted for less than 0.1 percent of GDP and around 2 percent of core copyright industries' value added. The economic contribution of these industries did not change much between 2002 and 2007.

#### 5.2.4 Employment

The three core copyright industries that employed the most people in 2007 were (in descending order):

- Press and literature;
- Software and databases;
- Radio and television

Together, they employed 29,137 people in 2007 – an increase of 17 percent compared to 2002 – and contributed 79.6 percent to employment in core copyright industries and 3.7 percent to total national employment (Table 9). Because other core copyright industries also increased employment, the share of these three industries in the total employment of core copyright industries decreased over the period 2002 to 2007 by 0.5 percentage points, but their contribution to national employment increased by 0.4 percentage points.

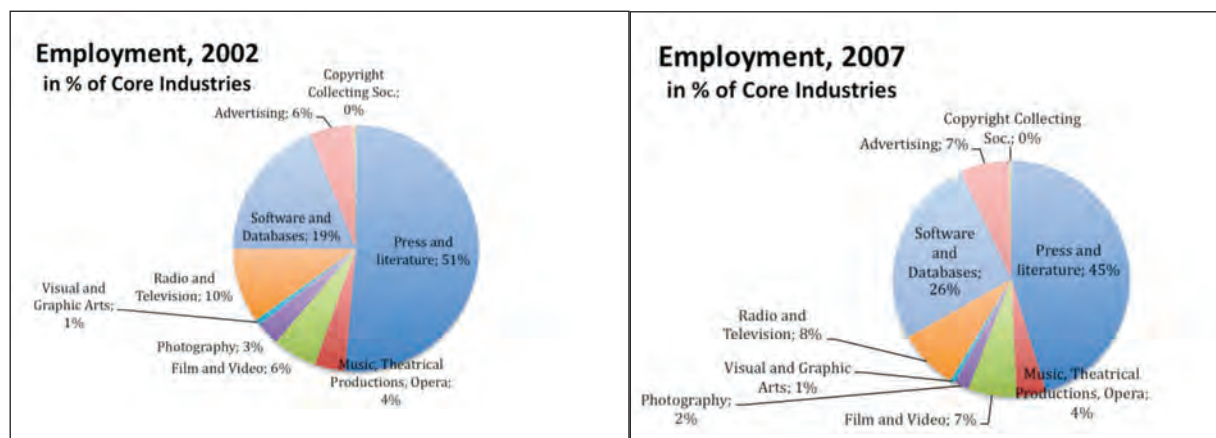
Unlike value added, where the two most important industries achieved a similar amount of value added, press and literature was by far the largest employer among core copyright industries. Press and literature alone employed 16,563 people in 2007, which was 45.2 percent of the employment in core copyright industries and 2.1 percent of national employment.

**Table 9: Detailed Employment of Core Copyright Industries**

Core	Employment						
	2002	% of total copyright-based	% of core	2007	% of total copyright-based	% of core	Average annual growth
Press and literature	15,967	32.6%	51.4%	16,563	30.4%	45.2%	0.7%
Music, theatrical productions, opera	1,238	2.5%	4.0%	1,483	2.7%	4.1%	3.7%
Film and video	1,825	3.7%	5.9%	2,431	4.5%	6.6%	5.9%
Photography	948	1.9%	3.1%	726	1.3%	2.0%	-5.2%
Visual and graphic arts	252	0.5%	0.8%	255	0.5%	0.7%	0.3%
Radio and television	3,038	6.2%	9.8%	2,991	5.5%	8.2%	-0.3%
Software and databases	5,859	12.0%	18.9%	9,584	17.6%	26.2%	10.3%
Advertising	1,824	3.7%	5.9%	2,478	4.5%	6.8%	6.3%
Copyright collecting organizations	84	0.2%	0.3%	93	0.2%	0.3%	1.9%
Total core industries	31,034	63.4%	100.0%	36,603	67.2%	100.0%	3.4%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

Software and databases employed less than half as many people as press and literature in 2002, but this industry was the biggest generator of new employment. Between 2002 and 2007 it increased employment on average by 10.3 percent per year. In 2007, this industry employed 9,584 people, which represented around a quarter of the employment in core copyright industries and 1.2 percent of national employment. Similarly to other indicators of economic performance, employment shows that the relative importance of press and literature decreased notably in favor of software and databases. A typical company in this industry relies on domestic employees as well as on the work done by people hired in foreign countries (frequently via a company's subsidiaries), thus also increasing the employment outside Slovenia.

**Chart 12: Employment Structure in Core Copyright Industries**



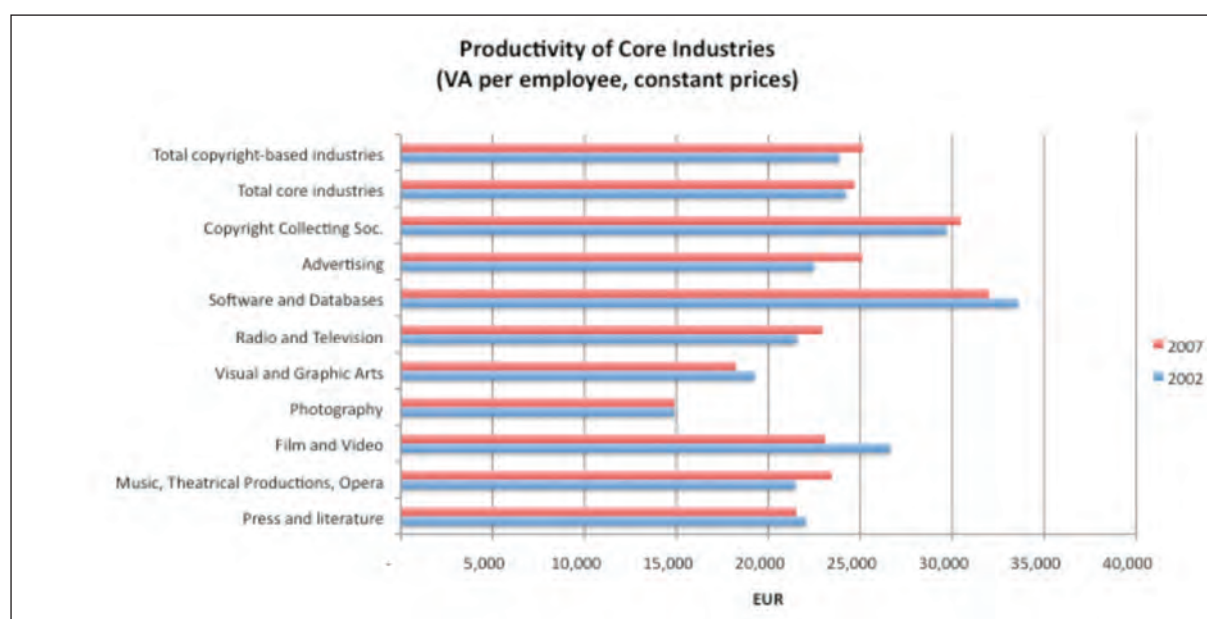
Radio and television was the third most important core copyright industry in relation to employment. In 2007 it employed 2,991 people, which represented 8.2 percent of employment in core copyright industries. However, from 2002 onward the employment in this industry was on average declining by 0.3 percent per year. Advertising and film and video employed a similar number of people in both years. In 2007, they each employed around 2,450 people, which represented more than 6.5 percent of employment in core copyright industries and around 0.3 percent of national employment. The contribution of advertising to core copyright industries and aggregate employment increased by 6.3 percent annually until 2007, which was more than the contribution of film and video had grown (on average by only 5.9 percent per year). Also, music, theatrical productions, opera increased employment from 2002 to 2007 at a rate of 3.7 percent per year, but at a lower level of employment than advertising or film and video: in 2002 this industry gave work to 1,238 people and employed 245 more people by 2007.

The total employment in the remaining industries (visual and graphic arts; photography; and copyright collecting organizations) was reduced in absolute and relative terms in the period 2002 to 2007. In 2007, they employed together 1,074 people or 2.9 percent of core copyright industries' employment.

### 5.2.5 Productivity

Productivity was measured in terms of real value added per employee. Real value added was calculated by deflating nominal value added in 2007 with the GDP deflator for the period 2002 to 2007 (127.3).

**Chart 13: Productivity of Core Copyright Industries in Real Terms**



Software and databases was by far the most productive industry, with EUR 32,018 value added per employee in 2007, while the average productivity of core and total copyright-based industries was around EUR 25,000. In the period 2002 to 2007, the average productivity of core and total copyright-based industries increased by 0.4 and 1 percent respectively, but the productivity of software and databases dropped on average by 0.9 percent annually. The productivity dropped because the industry was increasing employment faster than its output and value added. According to the representative of this industry in our panel of industry experts, the drop in productivity is due to the industry maturing: the returns started to decline, and the product life-cycles slowly increased as consumers increasingly gave preference to using stable and reliable software over changing it every time a new version was offered.

Copyright collecting organizations had a high productivity in both years and increased it on average by 0.5 percent annually, but due to their role as redistributors and their low number of employees, this is not an important productivity benchmark for other industries.

The highest drop – 2.8 percent per year – was recorded for film and video, while the largest increase in productivity was recorded for advertising: almost 2.2 percent per year. Press and literature, as the most important core industry economically, had below-average productivity in both years, and experienced a slight drop of 0.5 percent per year. Apart from copyright collecting organizations and software and databases, all other core copyright industries in 2007 were less productive than the average copyright-based or core industry.

### 5.2.6 Summary

To summarize, we can say that press and literature and software and databases are the two most important copyright-based industries for the Slovenian economy, and that software and databases, as a younger, highly productive and still-growing industry, is rapidly gaining economic importance over press and literature, which



is a mature industry. Although the software and databases industry already shows some signs of maturing, e.g. longer product life-cycles and decreasing productivity, it can be expected that it will replace press and literature as the most important core copyright industry in the next couple of years, particularly because the software and databases industry is less volatile in times of economic recession than other core copyright industries.

Besides these two industries, advertising, film and video, and radio and television also have significant economic importance for Slovenia. Of these industries, advertising has the fastest growth and highest productivity; therefore, it will probably become more important in the future. Unlike software and databases, advertising is more volatile than the average industry, booming in times of economic prosperity and plummeting in times of recession. The development of advertising thus greatly depends on the economic growth of the Slovenian economy.

The remaining industries – music, theatrical productions, and opera; photography; visual and graphic arts; and copyright collecting organizations – only make a small contribution to the Slovenian economy. Of these industries, music, theatrical productions and opera is the most important and has the highest productivity and growth.

### 5.3 Interdependent Copyright Industries

The interdependent copyright industries are engaged in the “production, manufacture and sale of equipment whose purpose is to wholly or primarily facilitate the creation and production or usage of works and other protected subject matter” (WIPO Guide, p.33). Following the WIPO Guide, we included the following in the category of the interdependent industries:

- TV sets, radios, VCRs and DVD players
- Computers and equipment
- Musical instruments
- Photographic and cinematographic instruments
- Photocopiers
- Blank recording material
- Paper

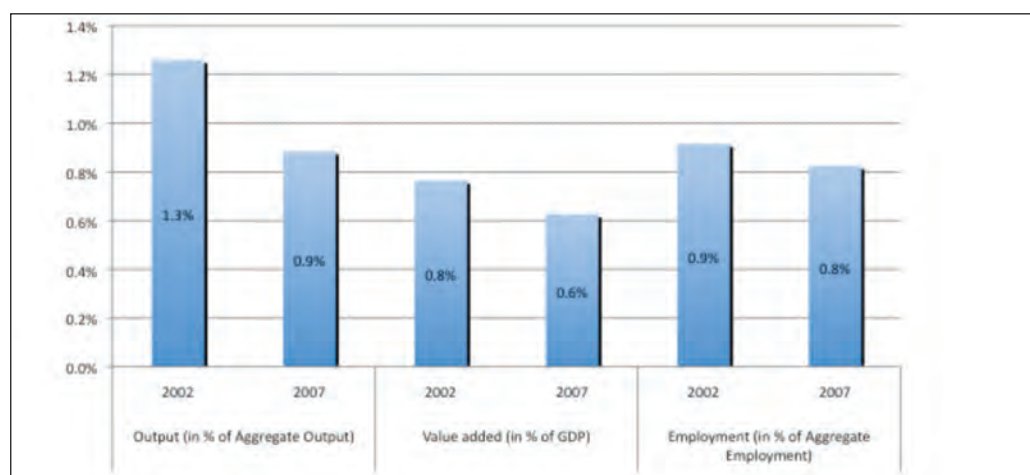
In our study, we assumed that all interdependent industries’ economic activities are related to copyright-protected products. Therefore, we included all of the output, value added and employment generated by these industries in the copyright-based economy, except that of the paper industry (Appendix 1). Due to the specifics of the paper industry, we decided to introduce the copyright factor based on the interviews with the industry representatives. The results of this qualitative approach showed that the appropriate copyright factor in the case of Slovenia would be 0.700.

#### 5.3.1 Overview

In 2007, interdependent industries contributed (Table 10 to Table 12, Chart 14):

- EUR 631.0 million or 0.9 percent of the total output produced in Slovenia in 2007. The average annual growth rate in real terms was negative and amounted to -2.6 percent.
- EUR 216.0 million of total value added or 0.6 percent of Slovenian GDP in 2007. The annual growth rate in real terms was negative and amounted to -0.8 percent.
- 6,573 employees or 0.8 percent of the economy’s total employment in 2007. So, on average, the number of employees decreased by 1.0 percent a year in the observed period.

**Chart 14: Relative Size of Interdependent Copyright Industries in 2002 and 2007**



### 5.3.2 Output

The output of the interdependent industries grew by EUR 64.6 million between 2002 and 2007 (Table 10). The key industry within this group is the paper industry. In 2007, the paper industry generated 7.4 percent of all output produced in copyright-based industries, indicating that in Slovenia the paper industry is of great relevance for copyright-based industries. During the observed period, output in the paper industry grew by EUR 36.6 million; however, in real terms the growth rate was negative and amounted to -2.6 percent per annum.

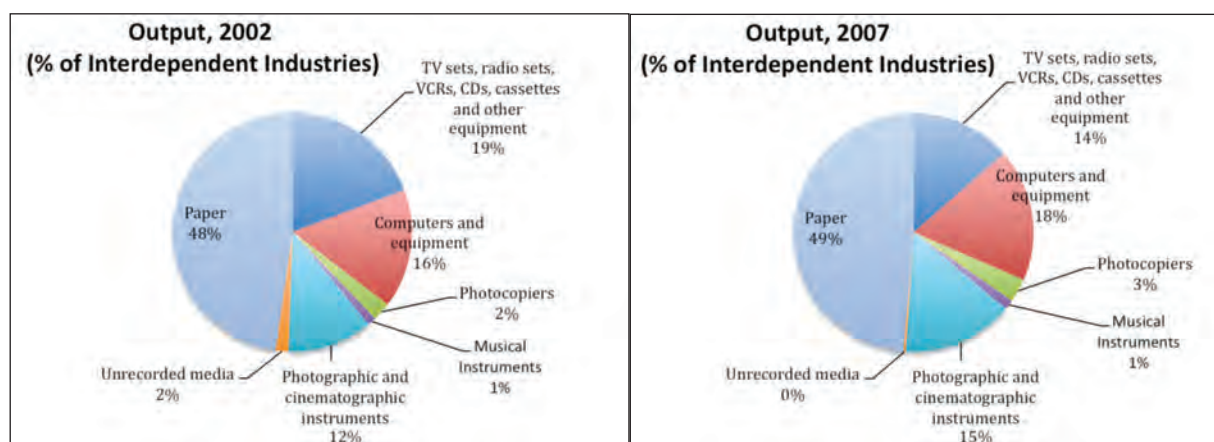
**Table 10: Interdependent Industries' Detailed Output Structure in 2002 and 2007**

Interdependent	Output (mill. EUR)						Average annual real growth
	2002	% of total copyright-based	% of inter-dependent	2007	% of total copyright-based	% of inter-dependent	
TV sets, radio sets etc.	109.3	3.9%	19.3%	85.3	2.1%	13.5%	-9.3%
Computers and equipment	91.1	3.3%	16.1%	113.5	2.7%	18.0%	-0.4%
Photocopiers	14.2	0.5%	2.5%	20.2	0.5%	3.2%	2.2%
Musical instruments	6.4	0.2%	1.1%	8.3	0.2%	1.3%	0.4%
Photographic and cinematographic ins.	65.3	2.3%	11.5%	94.8	2.3%	15.0%	2.7%
Unrecorded media	9.9	0.4%	1.7%	2.0	0.0%	0.3%	-31.0%
Paper	270.3	9.7%	47.7%	306.9	7.4%	48.6%	-2.3%
Total interdependent industries	566.4	20.2%	100.0%	631.0	15.2%	100.0%	-2.6%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

The paper industry generated 47.7 and 49 percent of output in 2002 and 2007 respectively. TV sets and radios recorded a decline and in 2007 generated 13.5 percent of all group output. Computers and equipment increased their share in 2007, generating 18 percent of output, while photographic and cinematographic instruments generated 15 percent of the group output. Photocopiers, musical instruments and unrecorded media generated only 3.2 percent of group output in 2007 (Chart 15).



**Chart 15: Interdependent Industries' Output Structure in 2002 and 2007**



### 5.3.3 Value added

The value added generated by interdependent industries was EUR 176.9 million in 2002 and grew to EUR 216.0 million in 2007 (Table 11). The recorded real drop in the observed period was 0.8 percent per annum.

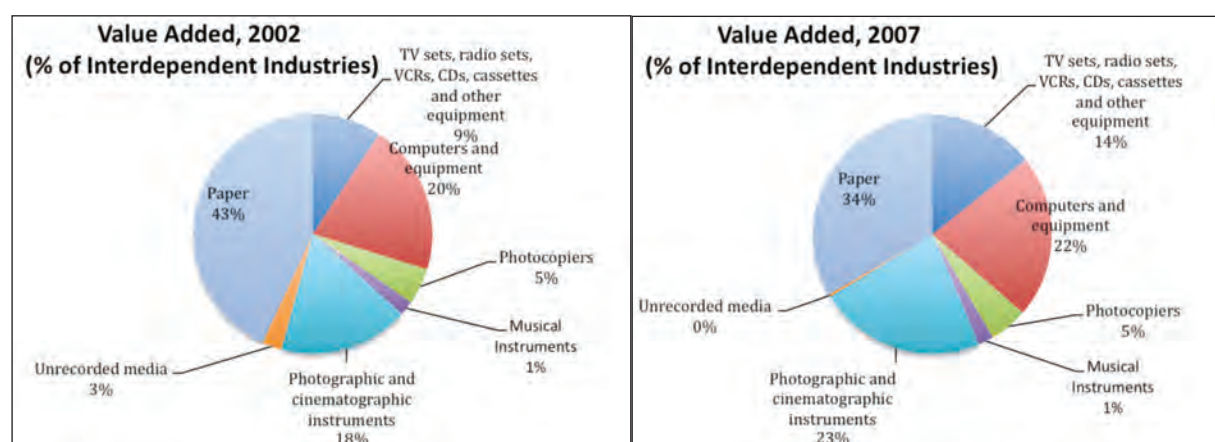
**Table 11: Interdependent Industries' Detailed Value Added Structure in 2002 and 2007**

Interdependent	Value added (mill. EUR)						
	2002	% of total copyright-based	% of inter-dependent	2007	% of total copyright-based	% of inter-dependent	Average annual real growth
TV sets, radio sets etc.	16.5	1.4%	9.3%	30.8	1.8%	14.3%	7.9%
Computers and equipment	36.2	3.1%	20.4%	47.7	2.7%	22.1%	0.7%
Photocopiers	8.7	0.7%	4.9%	11.2	0.6%	5.2%	0.3%
Musical instruments	3.4	0.3%	1.9%	4.4	0.3%	2.0%	0.2%
Photographic and cinematographic ins.	31.2	2.7%	17.6%	49.0	2.8%	22.7%	4.3%
Unrecorded media	4.7	0.4%	2.6%	0.7	0.0%	0.3%	-34.5%
Paper	76.2	6.5%	43.1%	72.0	4.1%	33.4%	-5.8%
Total interdependent industries	176.9	15.1%	100.0%	216.0	12.4%	100.0%	-0.8%
Total copyright-based industries	1,169.8	100.0%	-	1,745.5	100.0%	-	3.2%

The highest real value added growth rates were recorded in the TV sets and radio sets industry, amounting to 7.9 percent per annum, and in the photographic and cinematographic instruments industry, amounting to 4.3 percent in the period 2002 to 2007. The average annual value added growth rates in the computer and equipment, photocopiers, and musical instruments industries amounted to 0.7, 0.3 and 0.2 percent respectively. On the other hand, the paper and unrecorded media industries experienced average annual decline rates during the observed period. Value added in the paper industry dropped on average in real terms by 5.8 percent per annum, while the drop in the unrecorded media industry was 34.5 percent per annum.

The structure of the value added that was generated differs from the structure of the output that was generated. Paper is the key industry, generating 43.1 percent of value added in 2002 and 33.4 percent of value added in 2007. This is a relatively high drop in generated value added, especially given the fact that the share of output in the observed period did not change significantly. Due to the high growth rates in the observed period, the share of the computer and equipment and photographic and cinematographic instruments industries was 22.7 percent in 2007. So these three groups of industries generated 78.2 percent of value added generated by the interdependent industries in 2007.

**Chart 16: Interdependent Industries' Value Added Structure in 2002 and 2007**



### 5.3.4 Employment

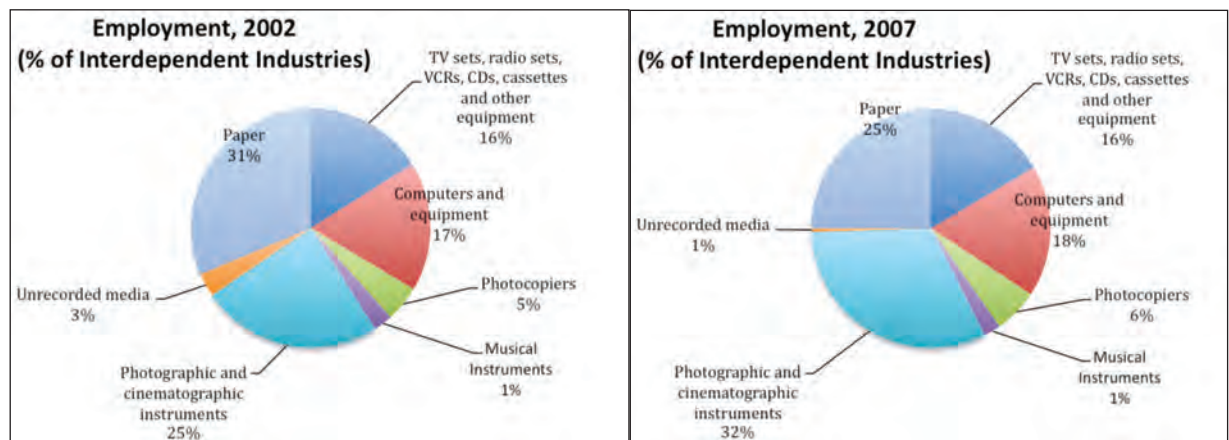
Total employment in the group of interdependent industries decreased by 1 percent per annum in the period from 2002 to 2007 (Table 12). The highest decreases in the number of employees were recorded in the unrecorded media and paper industries. Only two industries from this group recorded increases in the number of employees: the photocopier and photographic and cinematographic instruments industries.

In terms of employment, the key industry is again the paper industry, which generated 31.3 percent of all employment in this group in 2002 and 25.5 percent in 2007 (Chart 17). Due to the growth rate in the number of employees in the photographic and cinematographic instruments industry, the share of employees in this industry increased by 32 percent of all employees in the group of interdependent industries in 2007. TV sets and radios generated 16.5 percent of employment in 2007, while computers and equipment generated 17.8 percent of employment in the same year. Together, those four industries employed 91.2 percent of all workers in the group of interdependent industries.

**Table 12: Interdependent Industries' Detailed Employment Structure in 2002 and 2007**

Interdependent	Employment						
	2002	% of total copyright-based	% of inter-dependent	2007	% of total copyright-based	% of inter-dependent	Average annual growth
TV sets, radio sets etc.	1,112	2.3%	16.1%	1,083	2.0%	16.5%	-0.5%
Computers and equipment	1,208	2.5%	17.5%	1,171	2.1%	17.8%	-0.6%
Photocopiers	336	0.7%	4.9%	396	0.7%	6.0%	3.3%
Musical instruments	177	0.4%	2.6%	150	0.3%	2.3%	-3.3%
Photographic and cinematographic ins.	1,698	3.5%	24.5%	2,101	3.9%	32.0%	4.3%
Unrecorded media	221	0.5%	3.2%	33	0.1%	0.5%	-31.4%
Paper	2,165	4.4%	31.3%	1,639	3.0%	24.9%	-5.4%
Total interdependent industries	6,917	14.1%	100.0%	6,573	12.1%	100.0%	-1.0%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

**Chart 17: Interdependent Industries' Employment Structure in 2002 and 2007**



### 5.3.5 Summary

The paper industry is the key industry within the group of interdependent industries in Slovenia. If we consider value added per employee as a productivity estimator, we can see that the paper industry is the most productive within this group. Value added per employee in the paper industry in 2007 was EUR 43,944, which is significantly higher than in the other industries within this group. A high productivity level was also recorded in the computer and equipment industry in 2007, where value added per employee was EUR 40,762. The computer and equipment industry was progressing during the observed period. The output and value added in the industry increased, while the number of employees slightly decreased.

High growth in productivity was recorded in the TV sets and radios industry during the observed period; however, the average value added per employee in this industry in 2007 was still below the group average, and amounted to EUR 28,482. The output in the TV sets and radios industry decreased, but value added increased, while the number of employees remained at the same level during the observed period. The lowest value added per employee in 2007 was recorded in the photographic and cinematographic instruments and unrecorded media industries (EUR 23,349 and EUR 21,361 respectively). The latter is highly insignificant within the group and recorded a drop in all categories over the observed period.

## 5.4 Partial Copyright Industries

Partial industries are those in which a portion of the activities is related to the creation, production, manufacturing, performance, broadcast, communication and exhibition of copyright-protected products. The following groups of partial industries are included in this category:

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

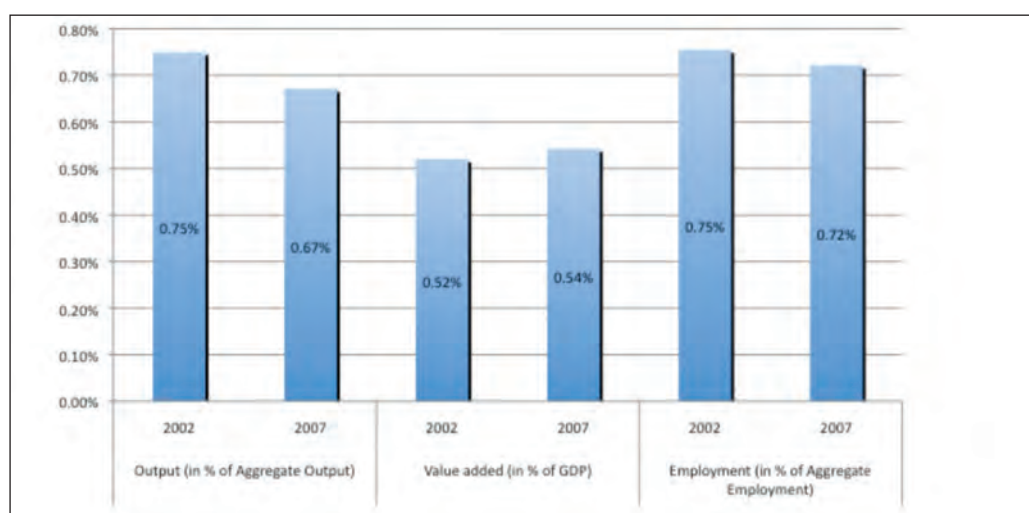
In the case of partial industries, we cannot assume that all economic activities are related to copyright-protected products. Therefore, we assigned copyright factors for the various industries that range from 0.060 to 0.500 (Table 1 or Table 25 in the Appendix).

### 5.4.1 Overview

The partial copyright industries contributed the following output, value added and employment to the Slovenian economy (Chart 18):

- In 2007, share of the total output generated by those industries dropped to 0.7 percent of aggregate output, while in absolute numbers those industries contributed EUR 478.8 million to the total Slovenian output. The real annual growth rate of output in those industries in the period 2002 to 2007 was 2.2 percent.
- The contribution of partial industries to the Slovenian economy GDP was 0.5 percent in 2007. In absolute numbers, the value added generated by the partial industries was EUR 187.0 million in 2007. The real annual growth rate of value added was 4.1 percent in the observed period.
- Employment generated by the partial industries represented 0.7 percent of total employment in 2007. Approximately 5,745 workers were employed in those industries. The average annual growth rate in the observed period was 0.2 percent.

**Chart 18: Relative Size of Partial Copyright Industries in 2002 and 2007.**



### 5.4.2 Output

It is estimated that, in 2007, EUR 578.8 million or 11.5 percent of all output generated by the copyright industries was generated by the partial industries. The key industry in this group is architecture, engineering, and surveying, generating 75 percent of total output in partial industries and 8.6 percent of all output in all copyright-based industries. The annual growth rate in the architecture, engineering, and surveying industry in the period 2002 to 2007 amounted to 2.3 percent. Very high annual growth rates of output were generated by the interior design industry, reaching 17.1 percent yearly (Table 13).

**Table 13: Partial Industries' Detailed Output Structure in 2002 and 2007**

Partial	Output (EUR mill.)						Average annual real growth
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	
Apparel, textiles, footwear	9.6	0.3%	2.8%	10.0	0.2%	2.1%	-3.8%
Jewelry and coins	7.6	0.3%	2.3%	8.8	0.2%	1.8%	-2.0%
Other crafts	11.3	0.4%	3.4%	15.7	0.4%	3.3%	1.7%
Furniture	29.4	1.0%	8.7%	37.7	0.9%	7.9%	0.2%
Household goods, china and glass	3.1	0.1%	0.9%	5.3	0.1%	1.1%	6.0%
Wall coverings and carpets	1.5	0.1%	0.5%	2.4	0.1%	0.5%	4.6%
Toys and games	12.9	0.5%	3.8%	25.6	0.6%	5.3%	9.2%
Architecture, engineering, surveying	250.2	8.9%	74.2%	357.5	8.6%	74.7%	2.3%

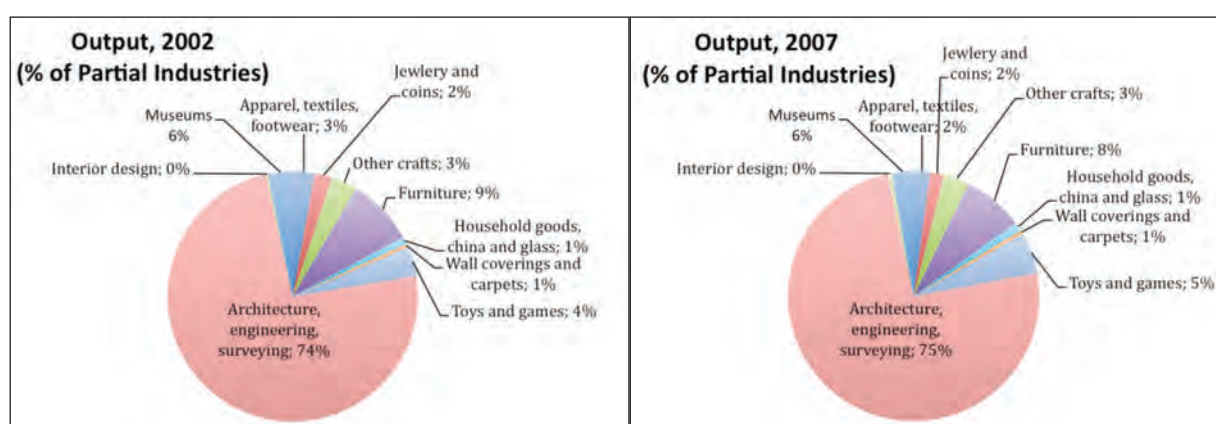


**Table 13: Partial Industries' Detailed Output Structure in 2002 and 2007 (continued)**

Interior design	0.8	0.0%	0.2%	2.3	0.1%	0.5%	17.1%
Museums	10.7	0.4%	3.2%	13.5	0.3%	2.8%	-0.2%
Total partial industries	337.1	12.0%	100.0%	478.8	11.5%	100.0%	2.2%
Total copyright-based industries	2,800.8	100.0%	-	4,155.0	100.0%	-	3.1%

As already stated and presented in Chart 19, architecture, engineering, and surveying is the key industry in this group, generating two thirds of the output. Furniture, toys and games and other crafts generated 7.5, 5.7 and 2.9 percent of output produced in this group of industries respectively. The remaining industries from this group generated less than 10 percent of output.

**Chart 19: Partial Industries' Output Structure in 2002 and 2007**



### 5.4.3 Value added

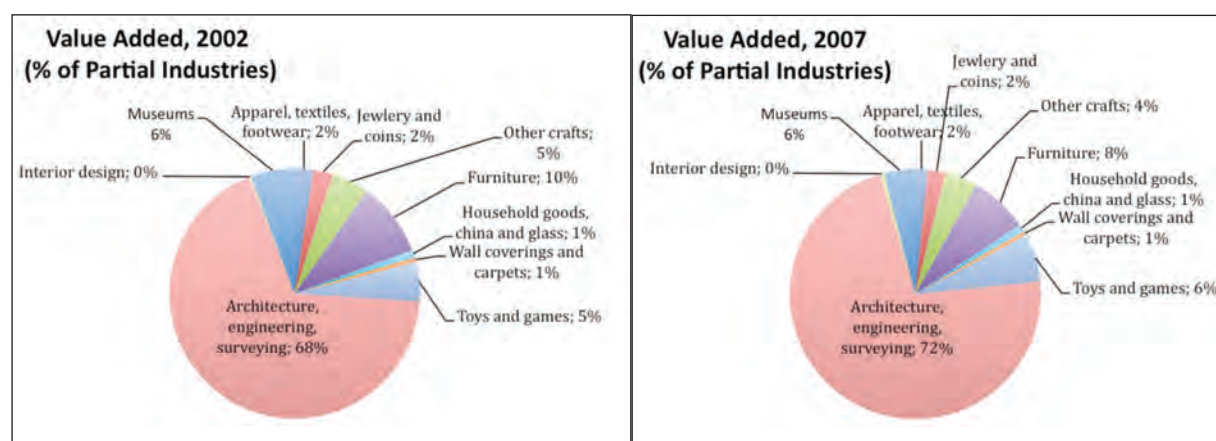
The total value added generated by the partial industries in 2007 represents 10.3 percent of value added generated by the total copyright-based industries in Slovenia. The key industry is architecture, engineering, and surveying, which – as in the case of output – is generating almost two thirds of all value added created in the partial industries. The average real annual value added growth rate was 4.1 percent in the observed period. The highest real annual growth rates were generated by the interior design, toys and games and architecture industries, amounting to 18.2, 8.3 and 5.2 percent respectively (Table 14).

**Table 14: Partial Industries' Detailed Value Added Structure in 2002 and 2007**

Partial	Value added (EUR mill.)						
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	Average annual real growth
Apparel, textiles, footwear	2.9	0.2%	2.4%	3.0	0.2%	1.6%	-4.1%
Jewelry and coins	3.1	0.3%	2.6%	4.3	0.2%	2.3%	2.0%
Other crafts	5.8	0.5%	4.8%	7.7	0.4%	4.2%	0.9%
Furniture	11.6	1.0%	9.6%	14.2	0.8%	7.6%	-0.7%
Household goods, china	1.1	0.1%	0.9%	1.7	0.1%	0.9%	3.8%
Wall coverings and carpets	0.8	0.1%	0.6%	1.0	0.1%	0.6%	1.4%
Toys and games	6.1	0.5%	5.1%	11.5	0.7%	6.2%	8.3%
Architecture, eng., surv.	81.9	7.0%	68.1%	134.3	7.7%	72.1%	5.2%
Interior design	0.3	0.0%	0.3%	1.0	0.1%	0.5%	18.2%
Museums	6.8	0.6%	5.7%	7.5	0.4%	4.0%	-1.4%
Total partial industries	120.3	10.3%	100.0%	186.4	10.7%	100.0%	4.1%
Total copyright-based industries	1,169.8	100.0%	-	1,745.5	100.0%	-	3.2%

The structure of the value added created by the partial industry group does not differ significantly from the structure of produced output. The largest generator of value added is the architecture, engineering, and surveying industry. This industry generated 72.1 percent of all value added in this group in 2007. Furniture, toys and games and other crafts generated 7.6, 6.2 and 4.2 percent of value added respectively. The structure of value added did not change significantly between 2002 and 2007.

**Chart 20: Partial Industries' Value Added Structure in 2002 and 2007**



#### 5.4.4 Employment

Employment in the partial industries represented 11.6 percent of all employment generated by the copyright-based industries in 2007. The number of employees in this group grew by 0.2 percent annually in the observed period. The highest drop in the number of employees was recorded in the apparel, textiles and footwear industry. The average annual drop in the observed period was 7.4 percent. Conversely, interior design generated the most new employments in this group of industries. The average annual growth rate over the observed period was 16.3 percent.

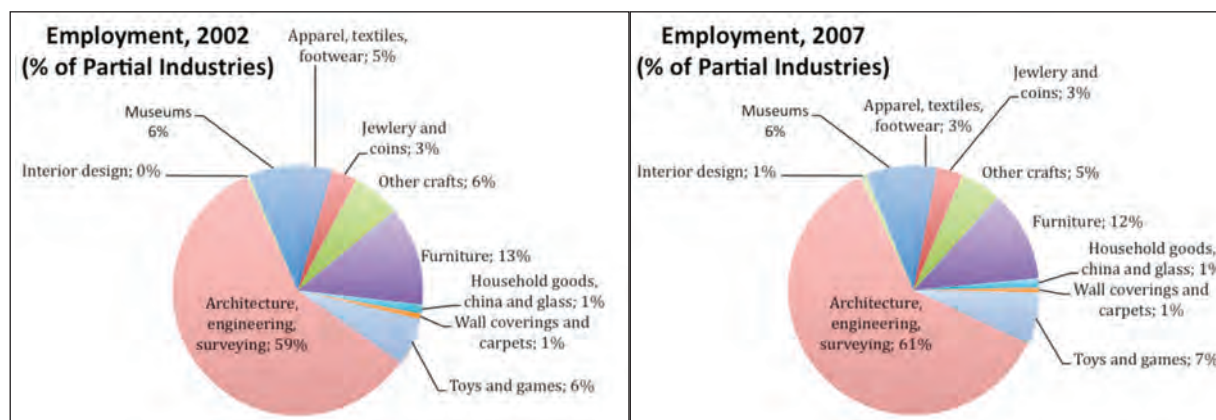
**Table 15: Partial Industries' Detailed Employment Structure in 2002 and 2007**

Partial	Employment						
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	Average annual growth
Apparel, textiles, footwear	254	0.5%	4.5%	173	0.3%	3.0%	-7.4%
Jewelry and coins	187	0.4%	3.3%	191	0.4%	3.3%	0.4%
Other crafts	355	0.7%	6.2%	307	0.6%	5.3%	-2.9%
Furniture	731	1.5%	12.8%	678	1.2%	11.8%	-1.5%
Household goods, china and glass	65	0.1%	1.1%	66	0.1%	1.2%	0.3%
Wall coverings and carpets	41	0.1%	0.7%	38	0.1%	0.7%	-1.3%
Toys and games	349	0.7%	6.1%	386	0.7%	6.7%	2.1%
Architecture, engineering, surveying	3,329	6.8%	58.4%	3,502	6.4%	61.0%	1.0%
Interior design	22	0.0%	0.4%	48	0.1%	0.8%	16.3%
Museums	365	0.7%	6.4%	357	0.7%	6.2%	-0.4%
Total partial industries	5,698	11.6%	100.0%	5,745	10.6%	100.0%	0.2%
Total copyright-based industries	48,978	100.0%	—	54,506	100.0%	—	2.2%

The major employers in this group were: architecture, engineering, and surveying; other crafts; furniture; and toys and games. These industries generated 85 percent of the total employment in this group in 2007. Similarly to the cases of output and value added, architecture, engineering, and surveying generated the most employment in this group (61 percent in 2007).



**Chart 21: Partial Industries' Employment Structure in 2002 and 2007**



#### 5.4.5 Summary

Architecture, engineering, and surveying is the key industry within this group. This industry generates around two thirds of the group's output, value added and employment. In terms of productivity, this industry can also be classified as highly productive, since the value added per employee reached EUR 32,812 in 2007. The industry with the highest productivity in 2007 was interior design. The value added per employee created by this industry was EUR 43,574. In addition, the architecture and toys and games industries generated productivity higher than the group average, reaching EUR 40,356 and EUR 33,104 respectively in 2007.

The industry that was the least productive was the apparel, textiles and footwear industry. The value added per employee in this industry in 2007 was EUR 11,626. This industry also recorded drops in output, value added and employment over the observed period. Other industries from the group generated value added per employee that was lower than average (other crafts; furniture; household goods, china and glass; and wall coverings generated value added per employee of EUR 21,773, EUR 19,432, EUR 26,473 and EUR 25,851 respectively).

### 5.5 Non-Dedicated Support Industries

The non-dedicated support industries are industries "in which a portion of the activities are related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries" (WIPO Guide, p.35). These activities are classified into three industries as follows:

- Wholesale and retail;
- Transportation;
- Telephony and internet

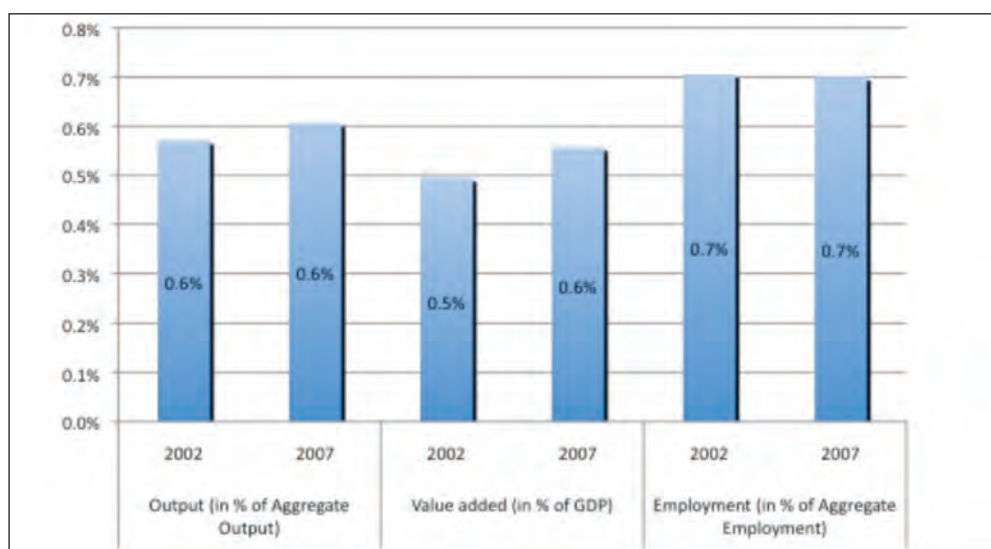
The copyright factor for non-dedicated industries was recalculated. Recalculation is weighted as being equal to the share of the first three groups (core, interdependent and partial) in the national GDP or the GVA (Gross Value Added) (Table 25 in the Appendix).

#### 5.5.1 Overview

The non-dedicated copyright industries contributed the following output, value added and employment to the Slovenian economy (Chart 22):

- In 2007, the share of total output generated by non-dedicated support industries was 0.6 percent or EUR 433.3 million. The real annual growth rate of output in these industries was 5.8 percent.
- The contribution of non-dedicated industries to the Slovenian economy was 0.5 percent in 2007. In absolute numbers, the value added generated by this group was EUR 192.3 million in 2007. The real annual growth rate of value added was 5.7 percent.
- Non-dedicated industries employed 5,585 people or 0.7 percent of total employment in Slovenia in 2007. The real annual growth rate of value added was 1.2 percent.

**Chart 22: Relative Size of Non-Dedicated Copyright Industries in 2002 and 2007**



### 5.5.2 Output

It is estimated that, in 2007, EUR 433.3 million or 11 percent of all output generated by the copyright-based industries was generated by the non-dedicated industries. The key industries in this group are wholesale and retailing and transportation, generating 44.6 and 41.6 percent of the total output of non-dedicated industries and 4.9 and 4.6 percent of the output of all copyright-based industries respectively.

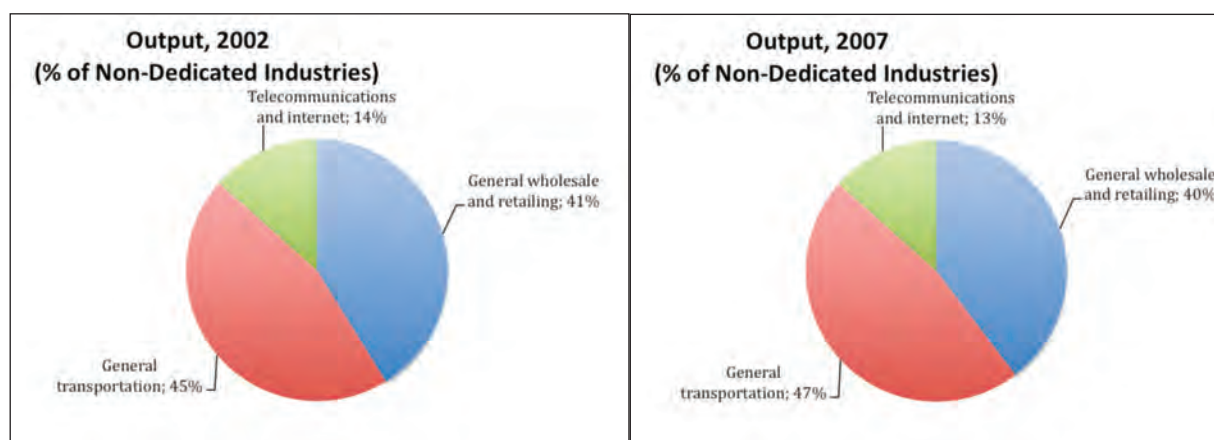
The real annual growth rate in wholesale and retail was 5 percent in the observed period, while the real annual growth rate in transportation was 6.5 percent. Telecommunications and internet generated EUR 58.2 million of output in 2007. The real annual growth rate in telecommunications and internet was 5.7 percent in the period 2002 to 2007.

**Table 16: Non-Dedicated Industries' Detailed Output Structure in 2002 and 2007**

Non-dedicated	Output (EUR mill.)						Average annual real growth
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	
General wholesale and retailing	105.8	3.8%	41.2%	171.7	4.1%	39.6%	5.0%
General transportation	116.5	4.2%	45.4%	203.4	4.9%	46.9%	6.5%
Telecommunications and internet	34.6	1.2%	13.5%	58.2	1.4%	13.4%	5.7%
Total non-dedicated industries	256.9	9.2%	100.0%	433.3	10.4%	100.0%	5.8%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

As we can see from Chart 23, the structure of the output of non-dedicated industries did not change significantly between 2002 and 2007. As already mentioned, the key industries are wholesale and retailing and transportation.

**Chart 23: Non-Dedicated Industries' Output Structure in 2002 and 2007**



### 5.5.3 Value added

The value added generated by the non-dedicated industries represents 11.0 percent of value added generated by the copyright-based industries in Slovenia in 2007.

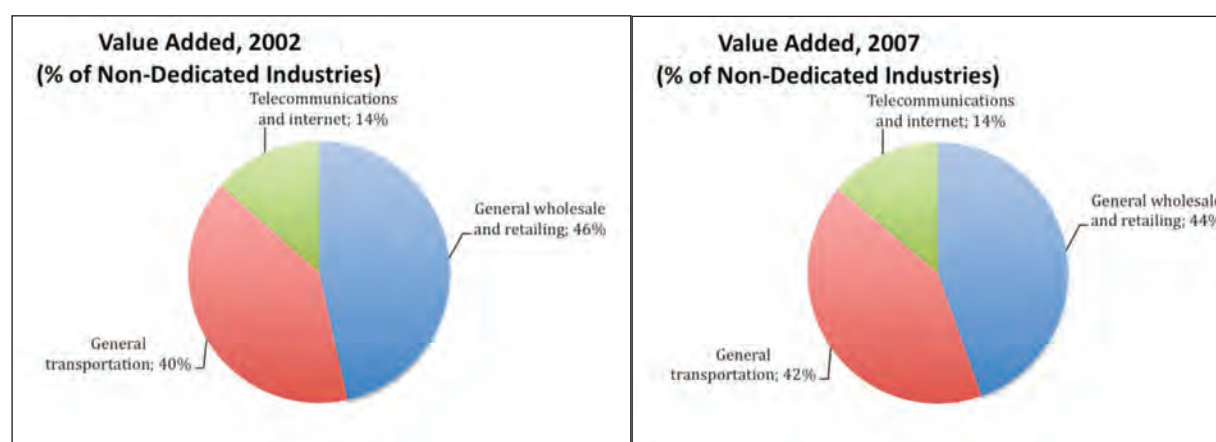
The average real annual value added growth rate was 4.6 percent in the observed period. Real annual growth rates generated by the wholesale and retailing, transportation and telecommunications and internet industries were 3.7, 5.4 and 5.1 percent respectively (Table 17).

**Table 17: Non-Dedicated Industries' Detailed Value Added Structure in 2002 and 2007**

Non-dedicated	Value added (EUR mill.)						Average annual real growth
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	
General wholesale and retailing	56.1	4.8%	46.5%	85.7	4.9%	44.6%	3.7%
General transportation	48.2	4.1%	39.9%	80.0	4.6%	41.6%	5.4%
Telecommunications and internet	16.4	1.4%	13.6%	26.7	1.5%	13.9%	5.1%
Total non-dedicated industries	120.7	10.3%	100.0%	192.3	11.0%	100.0%	4.6%
Total copyright-based industries	1,169.8	100.0%	–	1,745.5	100.0%	–	3.2%

As presented in Chart 24, the structure of the value added generated by non-dedicated industries does not significantly differ between 2002 and 2007. The key industries are wholesale and retailing and transportation, which together generated 86 percent of value added in 2002 and 2007.

**Chart 24: Non-Dedicated Industries' Value Added Structure in 2002 and 2007**



#### 5.5.4 Employment

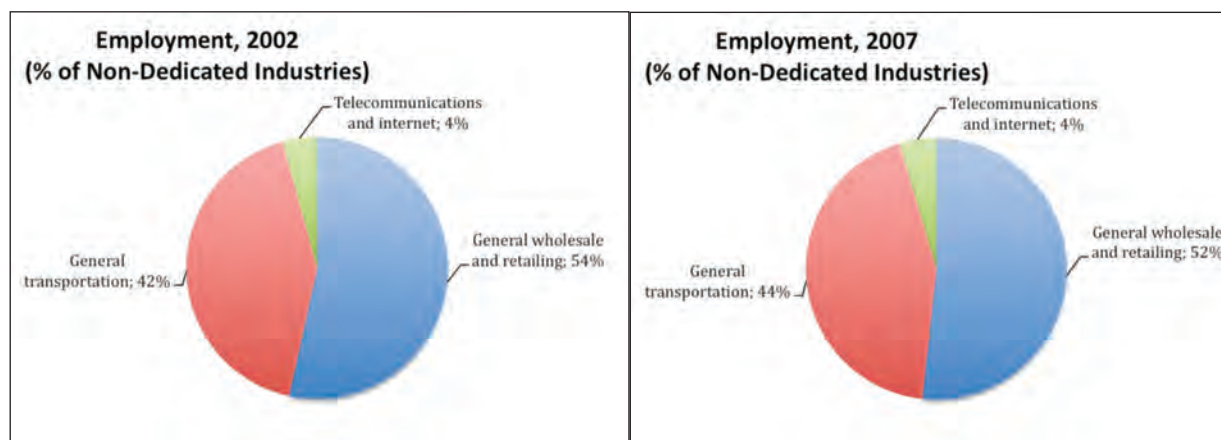
Employment in the partial industries represents 9.8 percent of employment generated by the copyright-based industries in 2007. The number of employees in this group grew by 0.9 percent annually in the observed period. Recorded growth rates in the number of employees in the wholesale and retailing, transportation, and telecommunications and internet industries were 0.3, 1.6 and 2.1 percent respectively.

**Table 18: Non-Dedicated Industries' Detailed Employment Structure in 2002 and 2007**

Non-dedicated	Employment						
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	Average annual growth
General wholesale and retailing	2,847	5.8%	53.4%	2,890	5.1%	51.7%	0.3%
General transportation	2,252	4.6%	42.3%	2,439	4.3%	43.7%	1.6%
Telecommunications and internet	231	0.5%	4.3%	256	0.5%	4.6%	2.1%
Total non-dedicated industries	5,330	10.9%	100.0%	5,585	9.8%	100.0%	0.9%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

As presented in Chart 25, the employment structure for non-dedicated industries does not significantly differ in 2007 in comparison with 2002. Wholesale and retailing generated 52 percent of all employment in 2007 and 54 percent in 2002.

**Chart 25: Non-Dedicated Industries' Employment Structure in 2002 and 2007**



### 5.5.5 Summary

To summarize, the key industries within this group are wholesale and retailing and transportation. The most productive industry in this group was telecommunications and internet, generating EUR 104,143 of value added per employee in 2007. The value added per employee for wholesale and retailing and transportation was EUR 29,652 and EUR 32,779 respectively.

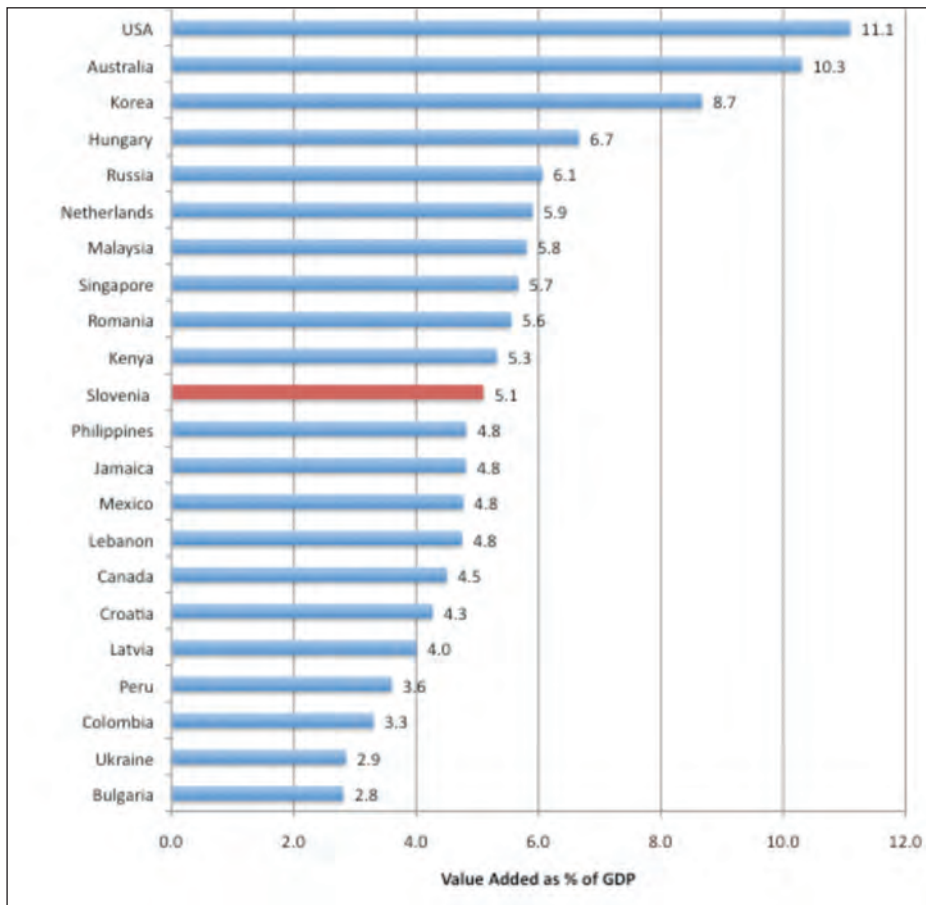
## 5.6 Comparison with Previous Studies

In this section, we compare the present study and the contribution of the copyright-based industries to the Slovenian economy with studies in other countries also carried out in accordance with the WIPO Guide. For the purpose of the comparison, we consider the 21 other countries that have conducted a survey in accordance with the WIPO Guide. Due to the fact that all of those studies used the same methodology to measure the economic benefits from the copyright-based industries, we may assume that they are comparable with the Slovenian study. The available studies were not only carried out in developed countries, but in a number of developing countries, such as the Philippines, Peru, Mexico, Malaysia, Kenya, Ukraine, etc. Even though the EU had 27 members in 2007, only 5 similar studies have been carried out by the EU member countries following the WIPO methodology. In order to compare the results of the copyright-based industries' contributions to the national economies, we presented the share of those industries in the GDP and employment of each country.

Chart 26 shows the position held by Slovenia in comparison with other countries.



**Chart 26: The added value of copyright-based industries as % of GDP per country**



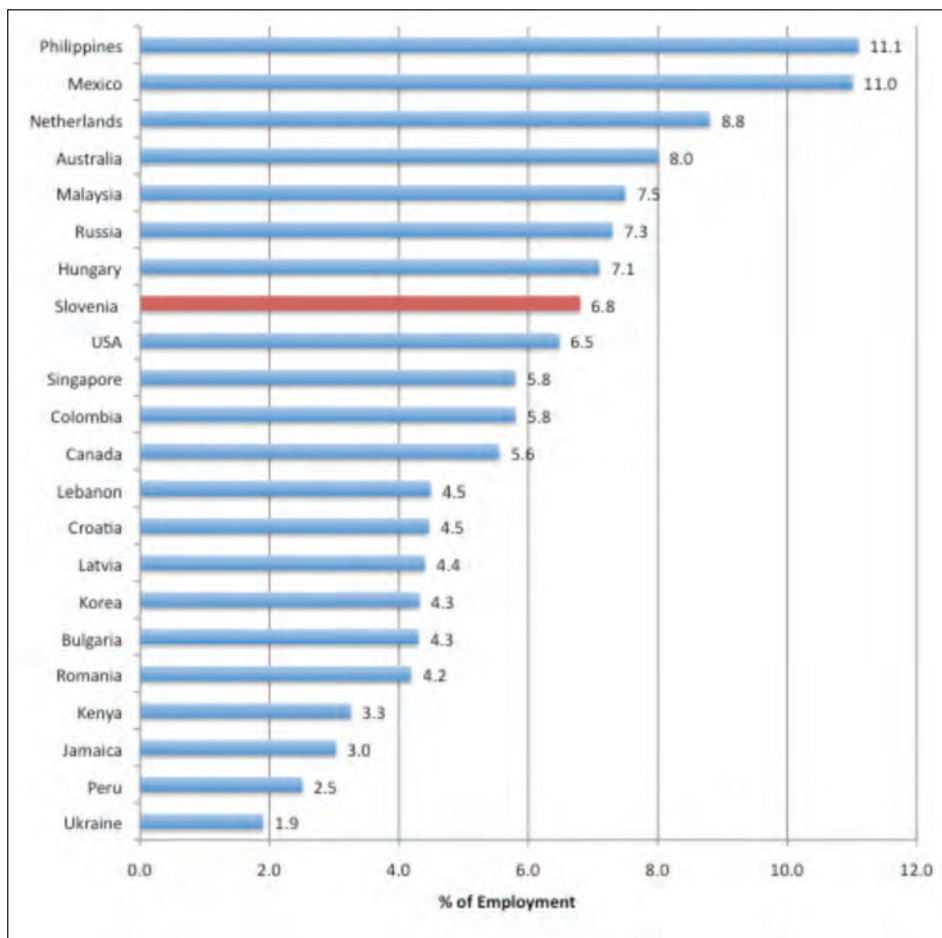
Source: WIPO, 2009.

Copyright-based industries comprise 5.1% of Slovenian GDP in 2007, while the average of the 21 countries was 5.5 percent. It is clear that Slovenia is just a bit below the average, holding 11th position in the group of 22 countries. It is expected that copyright-based industries in Slovenia are not contributing as much to Slovenian GDP as those industries do in the USA, Australia or Korea. If we compare the results with the EU countries, copyright-based industries in Hungary, the Netherlands, and Romania are contributing relatively more to the national GDP, while copyright-based industries are contributing significantly less to GDP in Latvia and Bulgaria.

In terms of employment (Chart 27), the copyright-based industries in Slovenia contributed 6.8 percent of national employment in 2007. The average of the 21 countries was 5.7 percent, meaning that Slovenia is clearly above average. Slovenia is in 8th position in the group of 22 countries. Very high percentages of national employment in copyright-based industries were recorded in the Philippines, Mexico, the Netherlands and Australia, while Ukraine, Peru, Jamaica and Kenya recorded the lowest percentages for the copyright-based industries' contributions to total employment at national level. In comparison with other EU countries, the Netherlands and Hungary recorded higher percentages of employment in copyright-based industries than Slovenia, while the percentages recorded in Latvia, Bulgaria and Romania were lower.



**Chart 27: The Employment of Copyright-Based Industries as a % of Total Employment per Country**



Source: WIPO, 2009.

## 5.7 The Direct and Indirect Macroeconomic Effects of Copyright-Based Industries in Slovenia

Chapters 5.1 to 5.6 contain the economic analysis of the direct contribution (i.e. the “direct effect”) of copyright-based industries in Slovenia. However, the total effect of these industries also includes the so-called “indirect effect”, which arises from the copyright-based industries relying on domestic inputs from the rest of the economy. For example, higher demand for products in core industries (e.g. the music industry) creates a higher demand for the final-use products of interdependent industries (e.g. the musical instruments industry) – this is the direct effect of copyright-based industries; a higher demand for products of interdependent industries (in our example the musical instruments industry) also creates a higher demand for industries in the rest of the economy (these might be, for example, the food industry, the banking industry, the construction industry, etc.) – this is called the “indirect effect” of copyright-based industries. In this chapter we apply input-output analysis, a comprehensive numerical tool that allows us to identify and estimate the direct as well as the indirect effects (operating via backward linkages throughout the economy) on key macroeconomic variables.

### 5.7.1 Introduction with Methodology

The input-output methodology<sup>20</sup> is one of the main tools of applied equilibrium analysis, providing a description and analysis of the complex production structure in an economy. The analysis is based on input-output tables, which reflect the flow of goods and services between all sectors of an economy over a period of time, as well as providing information on inputs that are used in production (e.g. intermediates, labor,

<sup>20</sup> The first input-output study dates back to Leontief (1936, 1966).

capital). All sectors are assumed to produce with linear Leontief production functions, where inputs are used in fixed proportions in relation to output, which can be summarized by a matrix of technical coefficients.

This allows us to systematically quantify the mutual interrelationships among the various sectors of the economy, in which production processes are always interdependent: to produce output, sectors require each other's inputs, and the indirect, economy-wide impacts of an industry arise from its backward linkages with the other sectors of production, which provide the required inputs for its output.

The total macroeconomic impact of copyright-based industries can thus be defined as a result of both the direct effect (direct production of copyright-based industries for final consumption) and indirect effects, with the multiplication process summarized by output multipliers, which compare the effects of an exogenous change of final demand (consumption, investment, exports) on the total, economy-wide output. An output multiplier for a sector  $j$  is thus defined as the total value of production in all sectors of the economy that is necessary at all stages of production in order to produce one unit of product  $j$  for final demand.

### 5.7.2 Input-Output Analysis of the Macroeconomic Impact of Copyright-Based Industries in Slovenia

In this section, we use input-output analysis to estimate the total macroeconomic effect of copyright-based industries in Slovenia. The analysis is based on 60-sector<sup>21</sup> symmetric input-output tables for domestic output in 2005<sup>22</sup> (the last year for which they are available), which are compiled by the Statistical Office of the Republic of Slovenia. Inputs for the analysis are data on five-digit industries, which have been aggregated to the two-digit level to be consistent with input-output tables. The underlying assumption, therefore, is that the production function of the particular five-digit copyright-based industry closely reflects that of the more aggregated, two-digit-level industry to which it belongs.

Results from the input-output analysis of the impact of copyright-based industries in Slovenia in 2007 are presented in Table 19. The estimates suggest that the total output production across the Slovenian economy, directly and indirectly related to copyright-based industries as defined in previous sections, amounted to EUR 5.02 billion in 2007 (representing 7 percent of total national production output), which is up 18 percent compared to the 2002 value in constant terms (with a real average yearly growth rate of 3.4 percent).<sup>23</sup> The resulting number of employees dependent on this production was 66,447, or 8.3 percent of the total workforce in Slovenia. The sum total for employee compensation reached EUR 1.5 billion, while the estimated effect on the net operating surplus in the economy was EUR 438 million, and EUR 787 million of imported intermediate goods and services were needed to ensure domestic production. The total value added, created across sectors linked to copyright-based industries throughout the economy, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP in 2007.

**Table 19: Total (Direct and Indirect) Macroeconomic Contribution of Copyright-Based Industries in Slovenia, 2007**

In million EUR	Total	Core industries	Interdependent industries	Partial industries	Non-dedicated industries
Direct production effect*	3,197.63	1,918.52	556.69	373.71	348.71
Total production effects	5,017.00	3,081.55	799.15	569.55	566.74
Output multiplier	1.57	1.61	1.44	1.52	1.63
Employment effect	66,447.45	40,365.60	10,599.49	8,001.17	7,481.19
% of total national employment	8.34	5.07	1.33	1.00	0.94
Use of imported products	787.32	332.91	278.60	105.23	70.59
Compensation of employees	1,514.99	1,014.78	180.44	170.62	149.15
Operating surplus, net	437.95	280.48	39.41	58.81	59.24
Total value added	2,350.49	1,548.77	272.06	263.79	265.87

<sup>21</sup> The production structure in Slovenian input-output tables is based on the 60-sector 2-digit SKD product classification.

<sup>22</sup> Source: Statistical Office of the Republic of Slovenia, 2008

<sup>23</sup> We found that while the input-output tables used in the analysis work quite well in describing the production and distribution structure in 2007, the structural changes in the economy since 2002 have been significant enough to render the imposition of a fixed structure through a single set of I-O tables for both 2002 and 2007 inappropriate. Any direct comparison would therefore be inconsistent and is omitted from the report in the absence of older, methodologically consistent I-O tables.

**Table 19: Total (Direct and Indirect) Macroeconomic Contribution of Copyright-Based Industries in Slovenia, 2007 (continued)**

Share of national VA (percent)	7.78	5.12	0.90	0.87	0.88
GDP impact **	2,410.31	1,585.62	278.09	268.48	278.12
Share of national GDP (percent)	6.99	4.60	0.81	0.78	0.81

Source: Statistical Office of the Republic of Slovenia (2009), author's own calculations

\* The direct production effect does not contain the entire production as calculated in previous sections of this report. It only includes the part of production that is dedicated to the use of final consumption: this is defined as production spent by households, government and NPISH, production for exports, changes in inventories, as well as gross fixed capital formation and valuables.

\*\* By definition, GDP includes value added plus net taxes on products

The estimated output multiplier of copyright-based industries in Slovenia (the ratio between total production across the economy and the copyright-based production for final consumption) is 1.57, which means that an increase of EUR 1,000 in copyright-based industries' final-use production will result in an increase in total output of EUR 1,570, when backward linkages with the rest of the economy are accounted for. While this result is lower than the average multipliers for e.g. construction in Slovenia, they are quite comparable to the estimated output multipliers for tourism in Slovenia (1.5-1.6) and to tourism's importance for the Slovenian economy in terms of both the direct and the total production effect.<sup>24</sup>

Further calculations were run separately for the four groups of copyright-based industries as defined by previous sections of the study. As can be seen from Table 19, the level of inter-sectoral dependencies differs significantly among them, with the core and non-dedicated groups of industries exhibiting above-average multiplication effects.<sup>25</sup>

For the group of core industries, the estimated output multiplier of 1.61 has resulted in an economy-wide output of EUR 3.1 billion in 2007, directly and indirectly related to this group of industries, which provided the equivalent of 40,366 full-time jobs (5 percent of national employment) and EUR 1 billion in employee compensation. Value added thereby created was EUR 1.55 billion, which is 5 percent of total national value added, while the share of GDP directly and indirectly linked to the core industries was 4.6 percent.

The contribution of the interdependent industries to domestic production was somewhat smaller. With an output multiplier of 1.44, total production in Slovenia increased by EUR 800 million in 2007, due to this group of copyright-related industries' own production as well as their entire input demand from the rest of the economy. This provided jobs for 10,600 people (1.33 percent of national employment) and ensured EUR 180 million in employee compensation. The total value added that was produced by the economy and linked to interdependent industries accounted for less than 1 percent of the total national value added, and contributed 0.8 percent to Slovenian GDP in 2007.

For the group of partial industries, the total direct and indirect production effect in 2007 was EUR 570 million, with an output multiplier of 1.52. The equivalent of 8,000 full-time jobs (1 percent of national employment) was secured by this production, resulting in EUR 39 million of employee compensation. The contribution to national value added was 0.9 percent (EUR 264 million) and the share in national GDP was 0.8 percent.

With an output multiplier of 1.63, the direct final-use production of the non-dedicated industries generated EUR 567 million in total related, economy-wide gross output, with an employment effect of 7,481 (0.94 percent of total national employment). The value added that was created by this production accounted for 0.88 percent (EUR 266 million) of national value added, while the contribution to Slovenian GDP in 2007 was EUR 278 million (0.81 percent).

<sup>24</sup> Source: Mihalić et al., 2009; Ministry for Economy, 2008.

<sup>25</sup> The distribution of the employment effect (number of people directly and indirectly linked to the production of copyright-based industries in Slovenia), calculated by 2-digit sectors, is presented in Table 27 in the Appendix.

### 5.7.3 Sources used in Chapter 5.7

- [1] Statistical Office of the Republic of Slovenia (2008): Input-Output Tables for Slovenia. Statistical Office of the Republic of Slovenia. Ljubljana.
- [2] Ministry of Economy (2008). Ocena ekonomskega pomena turizma v Sloveniji v letu 2003 in ekstrapolacija za leto 2006. Ministrstvo za gospodarstvo. Ljubljana.
- [3] Mihalić, T., Šlander, S., Rebec, P., Slak, N. (2009): Ocena narodnogospodarskih učinkov projekta ZOI Bled 2018. Faculty of Economics. Ljubljana. Forthcoming.

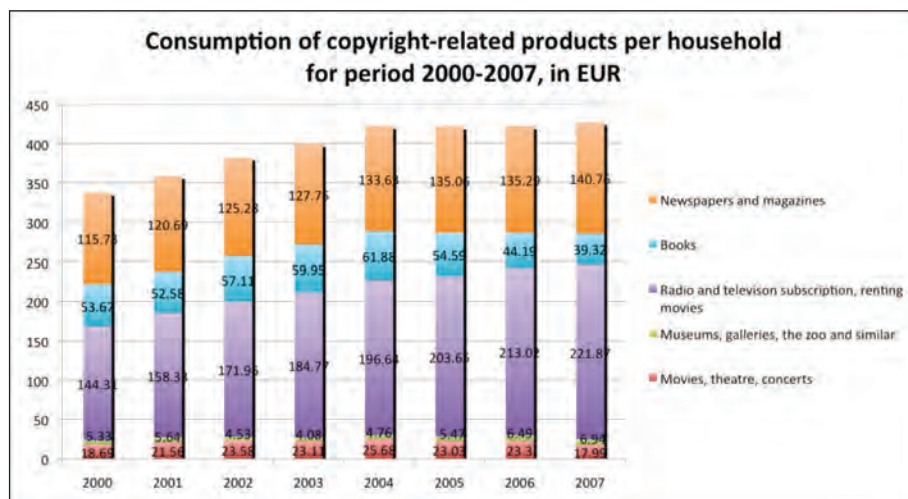
## 5.8 Developments in Selected Core Copyright-Based Industries

Due to the fact that data from the core copyright-based industries themselves was not readily available, we additionally analyzed data related to cultural activities that was obtained from the Statistical Office of the Republic of Slovenia (SORS). We were able to analyze in more detail the following four core copyright industries: press and literature; music, theatrical productions and opera; film and video; and radio and television.

In line with rising economic standards, Slovenian people spent more on copyright-related products. In 2007, the average Slovenian household paid almost EUR 430 for copyright-related products, such as newspapers and magazines, books, radio and television subscription, renting movies, visits to museums, galleries, theatres, and cinemas, and concerts. This is 12 percent more than five years earlier (2002) and 26 percent more than in 2000 (Chart 28). Since 2004, the annual amount spent per household for these products has stabilized at around EUR 425.

Households spent most money dedicated to copyright-related products on movie renting, radio and television subscriptions (around a half) and newspapers and magazines (a third). The least money was spent on visits to museums and galleries (about EUR 7 per year).

**Chart 28: Household consumption of copyright-related products in Slovenia**



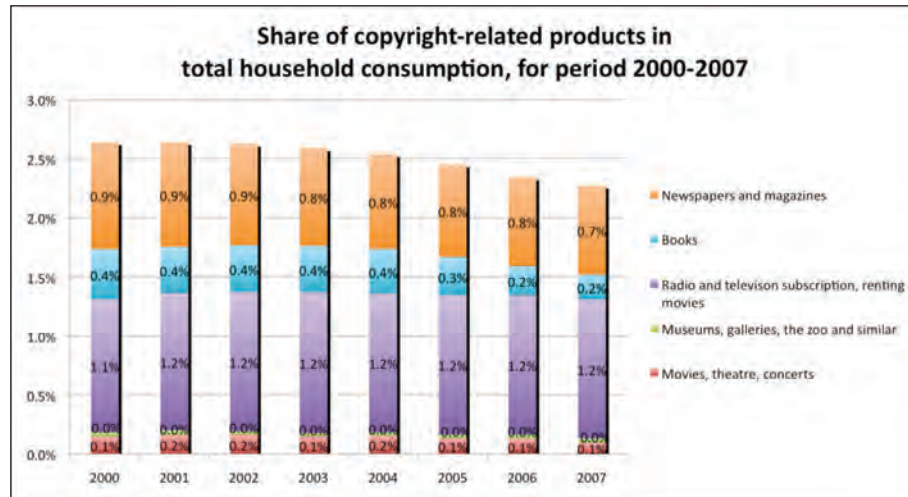
Source: Statistical Office of the Republic of Slovenia.

The amount spent on copyright-related products is not a very important part of total household consumption and the share of these products in total consumption steadily decreased throughout the whole period 2000 to 2007. Prior to 2005, this share was slightly above 2.5 percent, but it had decreased to around 2.3 percent by 2007 (Chart 29). The share of books reduced the most in this period (from 0.4 to 0.2 percent of total household consumption), while the share of the most important category, radio and television subscription, remained stable at around 1.2 percent of total household consumption. Similar to trends in other advanced countries, Slovenian people prefer to watch more television and read fewer books, thus they are willing to spend money on more expensive cable and internet television subscriptions to the detriment of books. Interestingly, the attendance at and number of books borrowed from libraries is increasing year on year



(Statistical Yearbook of the Republic of Slovenia 2008, pp. 167-174), which shows that Slovenian people do not want to spend money on buying books, but still want to read them.

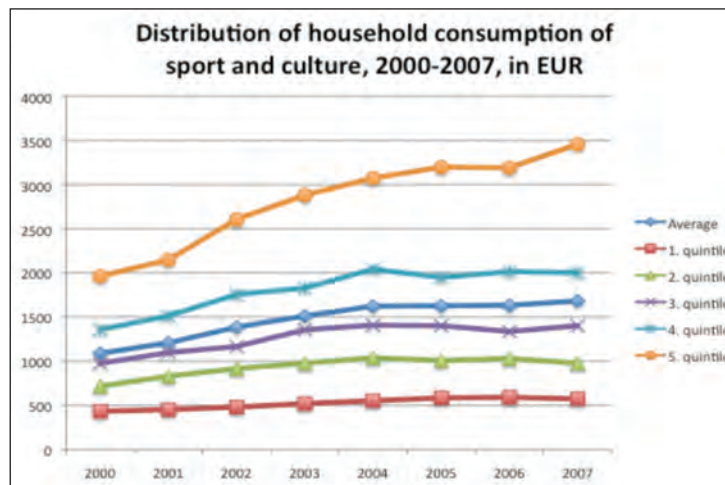
**Chart 29: Importance of copyright-related products in total household consumption in Slovenia**



Source: Statistical Office of the Republic of Slovenia.

Copyright-related products are not goods that are essential for everyday life and are mostly consumed as part of leisure time. Households with a higher economic standard are thus more inclined to spend money on these products. Slovenian data confirm that such households spend absolutely and relatively more on culture and sports than other households (Chart 30).

**Chart 30: Distribution of household consumption of sport and culture**



Source: Statistical Office of the Republic of Slovenia.

The gap between the top 20 percent of households (with the highest total consumption) and other households widened in the period 2000 to 2007. In 2007, these households spent around double the amount spent by the average household and around six times the amount of the bottom 20 percent of households. The gap has especially increased since 2004, when the amounts spent by other households remained fairly stable, but the amount spent by the top 20 percent of households further increased.

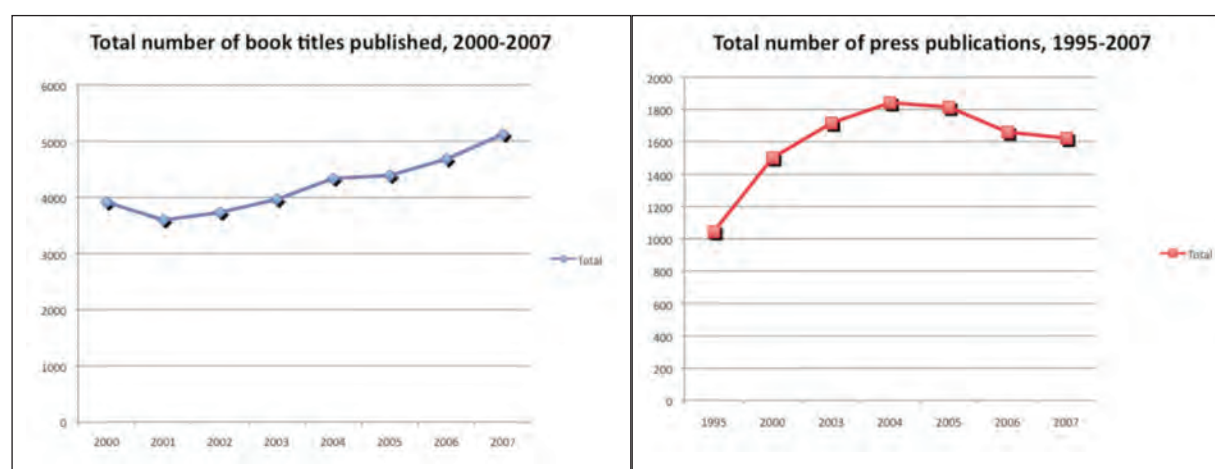
### 5.8.1 Press and Literature

Press and literature – the key core copyright industry in Slovenia – includes companies that print, publish or sell books, newspapers and magazines and similar products. Of these companies, printing companies have

the most important share, followed by companies mainly selling these products. To get a better perspective on the copyright-based content in this field of core copyright industries, we have analyzed quantitative data related to publishing activities.

Companies are publishing ever more books and brochures, while the trend for press publications is negative. The number of books published steadily increased in the period observed, while the number of printed serial publications decreased after 2004 (Chart 31). In 2007, more than 5,100 book titles were published, which is 9.5 percent more than a year before and 37 percent more than five years before. Press publications, however, numbered more than 1,600 in 2007, which is around 2 percent less than a year before, but almost 12 percent less than in 2004, when the peak of press publications was reached.

**Chart 31: Publishing of books and press publications between 2000 and 2007**



Source: Statistical Office of the Republic of Slovenia.

### Books

Book publishing is focused on publishing new works that had not been present previously in the Slovenian book market. Throughout the whole observed period, around 85 percent of published book titles were first editions, while the remaining 15 percent were re-editions (Table 20).

**Table 20: Number of book titles published in the period 2000-2007**

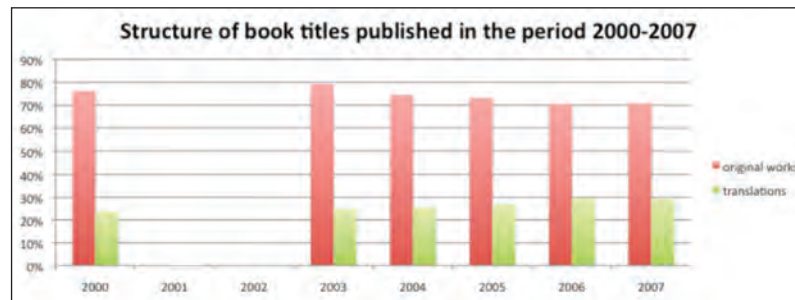
	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	<b>3917</b>	<b>3598</b>	<b>3735</b>	<b>3965</b>	<b>4340</b>	<b>4394</b>	<b>4684</b>	<b>5129</b>
first edition	3336	–	–	3458	3686	3775	4053	4378
re-edition	581	–	–	708	654	619	631	751
<b>Total</b>	<b>3917</b>	<b>3598</b>	<b>3735</b>	<b>3965</b>	<b>4340</b>	<b>4394</b>	<b>4684</b>	<b>5129</b>
original works	2985	–	–	3142	3231	3217	3306	3631
translations	932	–	–	980	1109	1177	1378	1498

Source: Statistical Office of the Republic of Slovenia.

Further inspection of the books published reveals that the trend in book publishing is moving slowly toward more translations at the expense of original works, although the latter still dominate. The structure of published books was around 75:25 in favor of original works, but by 2007 it had shifted to 70:30, still in favor of original works (Chart 32).



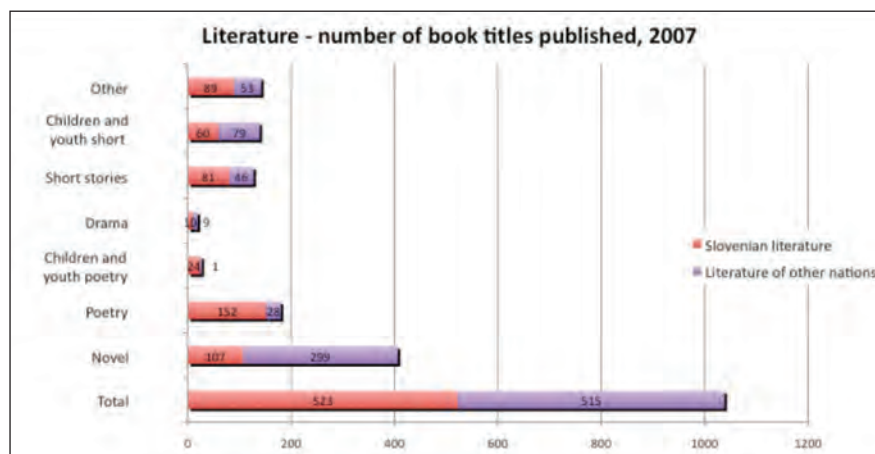
**Chart 32: Structure of published books: original works vs. translations**



Source: Statistical Office of the Republic of Slovenia.

Literature represents only a minor part of all published books. In 2007, around 20 percent of the total number of published book titles pertained to this category: the rest were various professional or specialty books, manuals, textbooks and similar. Of the literary works, around half were Slovenian and half foreign (Chart 33). Novels were by far the most popular type of literature (40 percent of total literature book titles), but only around a quarter of them were Slovenian. Slovenian works, on the other hand, dominate in poetry book titles, where around 85 percent of book titles are Slovenian.

**Chart 33: Structure of literature book titles by type of literature**



Source: Statistical Office of the Republic of Slovenia.

We can conclude that book production is increasing in scope in spite of the trend for consumers to reduce their expenditure on books. It is hard to give an accurate explanation for this without a further analysis of book prices and other market determinants, since the observed lower amount spent on books – in the presence of a wider choice of book titles, we can safely say it is mostly demand driven – could be either a result of the lower quantity of books bought or of lower prices in the market. Part of the explanation lies also in the well-developed network of public libraries, which provides a good choice of popular literature, thereby reducing the need to buy books in order to read them.

On the other side of the market, the wider choice of book titles offered might result from publishing houses' attempts to overcome the decreasing trend in reading (and buying) books by attracting a wider reading population. Writers in our panel of industry representatives complained that publishers in fact appropriate more and more copyright, to the disadvantage of authors. Authors also do not feel that copyright right-management organizations act much to their benefit and point out the lack of agency services in Slovenia that are available to authors. Consequently, they are left to themselves and since the majority of them are not full-time professionals, they lack the incentive to invest enough effort in learning about copyright issues to take full advantage of the copyright protection offered by the law. One member of our panel, a professional writer, believes publishing houses readily take advantage of authors' ignorance and therefore do not take proper acts to acknowledge authors' rights.

## Press

Press publications decreased in the last three years of the observed period. Among various types of press publications, around a quarter represented 'other' publications and three quarters 'serial' publications (Table 21).

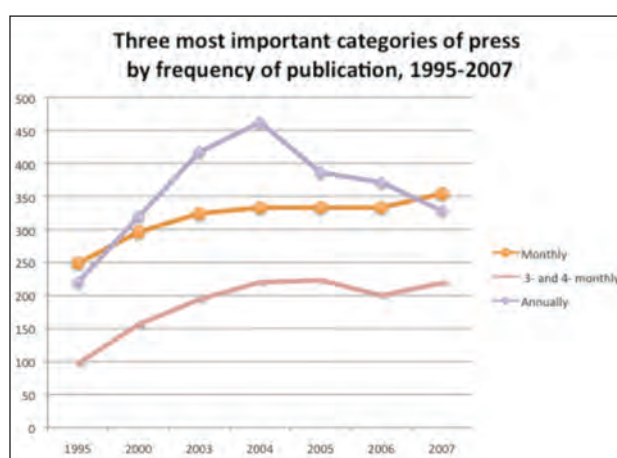
**Table 21: Press by frequency of publication, 1995-2007**

	Total	Daily	Twice a week	Weekly	Fortnightly	Monthly	Bi-monthly	3- and 4-monthly	Semi-annually	Annually	Other
1995	1045	8	4	42	40	249	55	97	37	220	293
2000	1501	6	5	50	34	296	64	156	74	319	497
2003	1716	6	4	59	31	324	85	194	88	417	508
2004	1842	6	4	59	37	333	85	220	90	462	546
2005	1815	10	2	60	46	333	80	223	95	386	580
2006	1660	9	2	56	42	333	72	200	91	371	484
2007	1623	14	2	58	44	354	101	219	95	328	408

Source: Statistical Office of the Republic of Slovenia.

However, the decrease in the total number of press publications was mostly a result of a lower number of 'other' and annual publications. Two other large categories of serial publications, monthly and 3- and 4-monthly publications, were both increasing for virtually the whole observed period between 1995 and 2007 (Chart 34). Also, the number of daily publications increased in 2007 to 14.

**Chart 34: Three largest categories of serial publications**



Source: Statistical Office of the Republic of Slovenia.

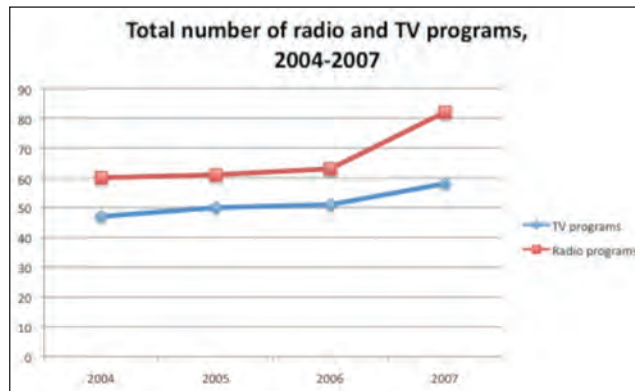
The average reach among daily newspapers is 9.3 percent of the population aged between 15 and 75. The most popular daily newspaper has a high 25 percent reach and is preferred by people with upper secondary educations or less. The second most popular daily newspaper has a 13.5 percent reach and is preferred by people with university educations. Among weekly publications, weekly supplements to daily newspapers lead in the number of readers; among regular weekly publications, free weekly newspapers – a novelty in Slovenian mass media markets – attracted a large number of readers in recent years (from 2007 onward). Interestingly, among readers of daily newspapers, more than half are men, and among readers of weekly, bi-weekly or monthly publications, more than half are women (Statistical Yearbook of the Republic of Slovenia, 2008).

Household expenditure on newspapers and magazines slightly decreased over the period 2000 to 2007, but the relative share of total consumption remained more stable, at around 0.8 percent. It seems that in spite of a greater offer of daily, weekly and monthly publications, people are not buying more publications, which indicates that the market is probably saturated and that people are accustomed to their preferred newspapers and magazines. Yet, the example of free newspapers shows that an innovative approach and attention to changes in modern lifestyles can lead to a larger audience.

### 5.8.2 Radio and Television

Radio and television was among the top five most important core copyright industries according to all economic performance indicators in our study and had the third-highest value added among core copyright industries. Radio and television subscription is also the largest item, among copyright-related products, in total household consumption in Slovenia. Activity in this industry grew over the last decade. The total number of radio and TV programs was constantly increasing in the observed period 2004 to 2007, with the highest rise in 2007 (Chart 35). In 2007, there were 82 radio programs and 58 TV programs.

**Chart 35: Radio and television programs in Slovenia**

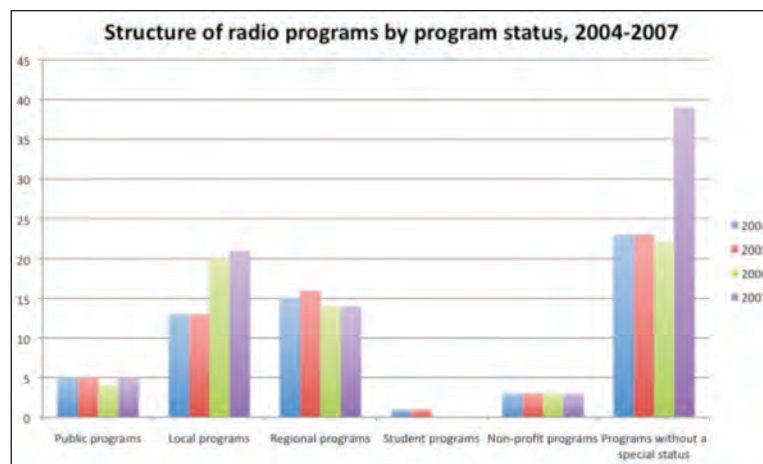


Source: Statistical Office of the Republic of Slovenia.

Most of the radio programs are commercial programs, without special status (48 percent in 2007, 35 percent before 2007), followed by local and regional programs (around 25 and 17 percent in 2007, respectively). Five public programs were broadcast in the observed period. Until 2005 there was also a special student program, which lost its special status and was later reclassified into a program without special status.

In recent years, there was a large increase in commercial and local programs – most notable is the increase in commercial programs in 2007 by almost 80 percent compared to the year before – while the number of regional programs slightly decreased. The reason for such a large increase is not clear. There were no major changes in the legislation during these years; however, the reason for the increase in new programs might be the change of state policy, which claimed support for more media diversity and offered more public funding to newly established media.

**Chart 36: Radio programs by program status**

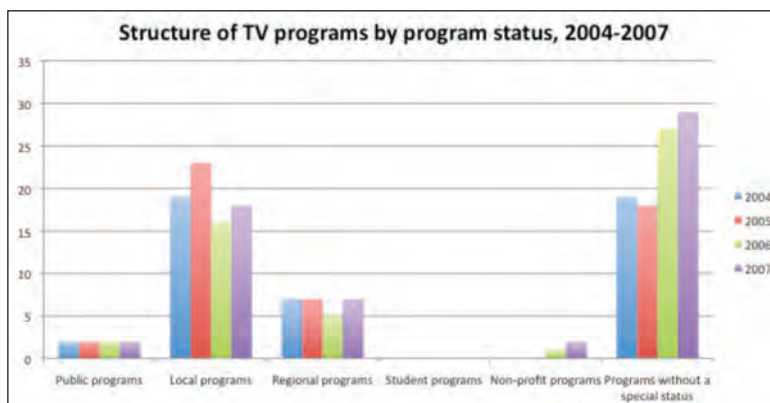


Source: Statistical Office of the Republic of Slovenia.

Commercial programs without special status and local programs also dominate among TV programs. Around half of all TV programs in 2007 were commercial programs without special status and around 30 percent of

all programs were local programs. Two public TV programs were broadcast in the observed period. As with radio programs, there was a large increase in the number of commercial programs without special status in 2006 and 2007. There were fewer local programs, however, in these two years than in 2004 and 2005.

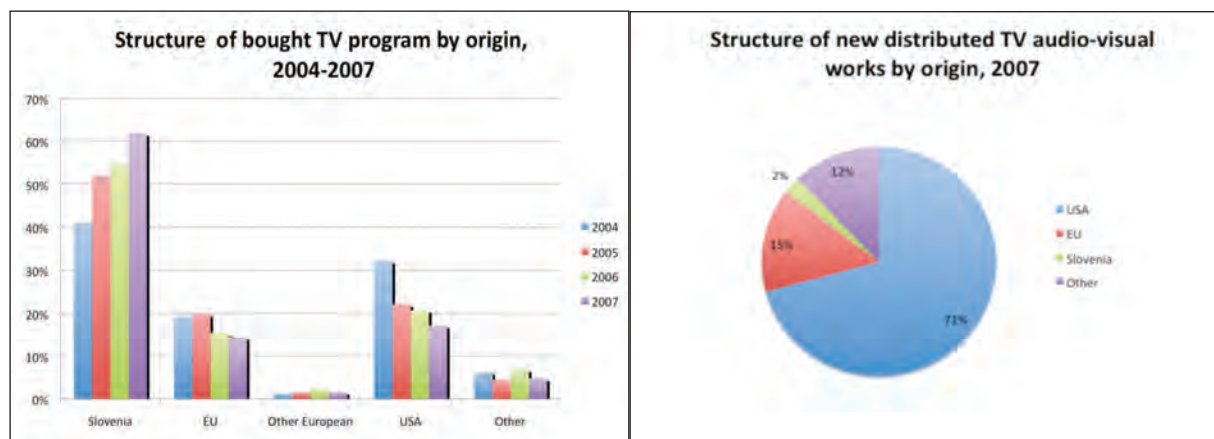
**Chart 37: TV programs by program status**



Source: Statistical Office of the Republic of Slovenia.

Besides Slovenian programs, many households subscribe to cable or internet television providers offering a wide choice of national and specialized TV programs. Slovenian programs also offer foreign produced content, but the trend is toward reducing the share of such content in favor of domestic production. In 2007, a bit less than 40 percent of bought TV programs were foreign productions; out of this number, around half were from EU countries and half from the USA (Chart 38, left panel). The share of American production was decreasing constantly in the period 2004 to 2007 to the benefit of Slovenian production.

**Chart 38: Origin of TV program**



Source: Statistical Office of the Republic of Slovenia; SORS, Rapid report No. 25/2009.

However, if we look at the structure of new distributed TV audio-visual works, American production by far dominates. In 2007, around 70 percent of distributed audio-visual works for public television broadcasting were from the USA, around 15 percent from EU countries, and only around 2.4 percent from Slovenia (Chart 38, right panel).

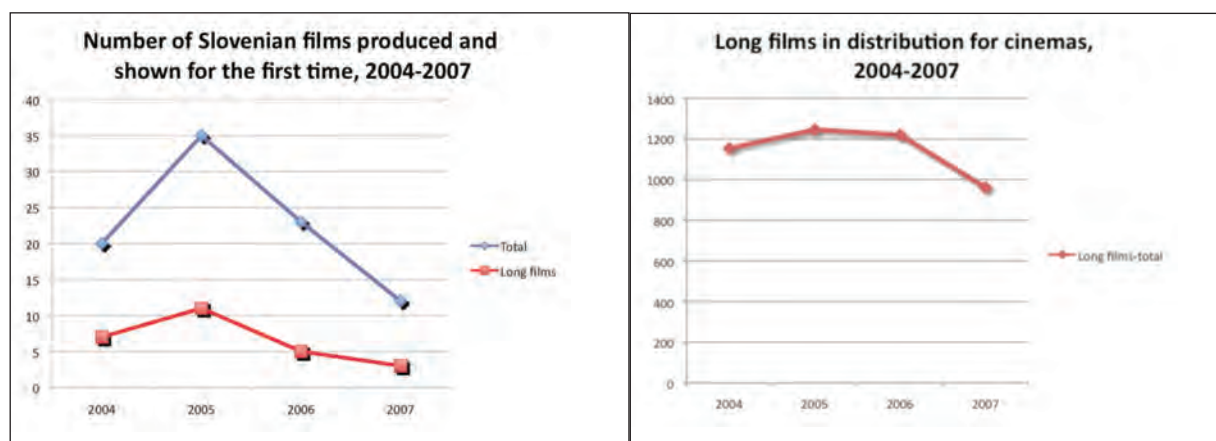
### 5.8.3 Film and Video

Film and video is the third most important employer among core copyright industries and is ranked among the top five core copyright industries according to all economic performance indicators in our study. This industry includes production, distribution and public showing of films. Overall, the trends in this industry are negative: there are fewer Slovenian films being produced and fewer films being distributed, and the cinema audience is shrinking.



The production of Slovenian films was decreasing in the last years of the observed period 2004 to 2007 (Chart 39, left panel). In 2007, 12 films were produced; of these, only 3 were long films. This is almost half the number produced a year before and only a third of what was produced two years earlier. The distribution of all long films was decreasing in this period as well (Chart 39, right panel), with a significant drop of around 20 percent in 2007.

**Chart 39: Production and distribution of films in Slovenia**



Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

There is, however, a tendency toward the distribution of more new films. In 2004, the ratio between new and old films in distribution was close to 60:40; by 2007, this ratio had changed to around 70:30 (Table 22).

Because of their small number, Slovenian films do not attract a high number of visitors; in a typical year, this means around 3 percent of total attendance (Table 22). However, domestic films can become extremely popular among the Slovenian audience, which was proved between the fall of 2007 and 2008, when one Slovenian film broke records in attendance and became the most popular film of all time in Slovenian cinemas.

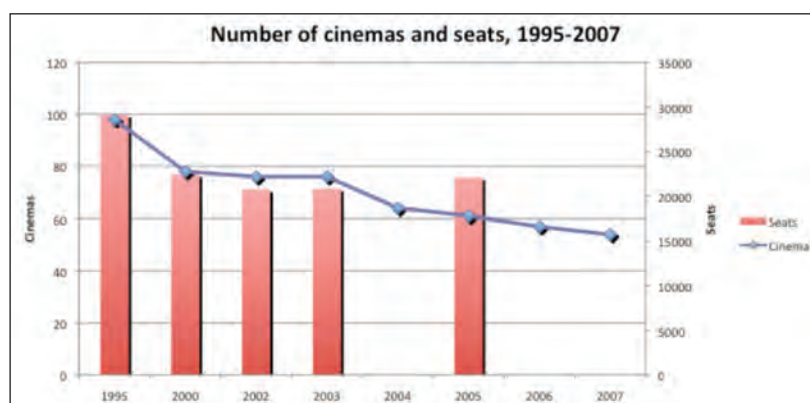
**Table 22: Activity of film and cinema industry, 2004 – 2007**

	Production of Slovenian films		Distribution of films			Attendance of long films		
	Total	Long films	Total	New films	Old films	Total	Slovenian films	Foreign films
2004	20	7	1153	728	425	3,003,516	101,112	2,902,404
2005	35	11	1245	743	502	2,443,776	72,239	2,371,537
2006	23	5	1219	759	460	2,685,234	23,617	2,661,617
2007	12	3	960	689	271	2,406,568	135,965	2,270,603

Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

Also, the number of cinemas decreased over the period 1995 to 2007 (Chart 40). In 2007, only 54 of them were operating, which is a 30 percent fall from 2002. The number of seats was also declining until 2003, after which it slightly increased.

**Chart 40: Cinemas and seats**



Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

This trend reflects the fundamental change in consumer preferences regarding cinemas and the way modern films are shown as part of a complete 'movie-theatre experience'. Large cinema complexes with additional services such as restaurants, nightclubs, and shops have attracted audiences more than many small local cinema theatres with obsolete fixtures did. Larger cinemas have thus replaced many smaller ones. However, due to the increasing popularity of home-theatre audio-visual systems and greater availability of films via the internet, fewer people choose to see films in cinemas.

#### 5.8.4 Music, Theatre Productions, Opera

The category of music, theatre productions and opera was not in the top five core copyright industries for any of the economic performance indicators used in this study. However, it was the largest among the rest of the core copyright industries and definitely has a high copyright content; therefore we also analyze it here in more detail.

##### Theatre

Generally speaking, the trends are negative for theatre and music activity. Over the period 2004 to 2007, fewer new works were performed in theatres, there were fewer performances at theatre headquarters, and attendances went down (Table 23).

**Table 23: Activity of theatres by type of theatre**

		Theatres – total	Drama	Opera	Ballet	Dance	Puppet	Experimental	Other theatres
New works performed	2004	195	81	5	4	44	33	10	18
	2005	246	95	9	4	42	30	13	53
	2006	229	83	9	4	45	35	15	38
	2007	221	76	8	6	68	21	26	16
Performances at the theatre headquarters	2004	6,124	2,697	57	37	257	704	2,161	211
	2005	5,226	2,691	52	45	267	689	1,123	359
	2006	4,264	2,307	117	76	149	1,279	15	321
	2007	3,864	2,082	100	73	164	1,127	53	265
Performances by other companies at the theatre headquarters	2004	793	411	7	4	83	199	1	88
	2005	830	409	3	5	116	207	6	84
	2006	741	401	11	6	42	193	–	88
	2007								



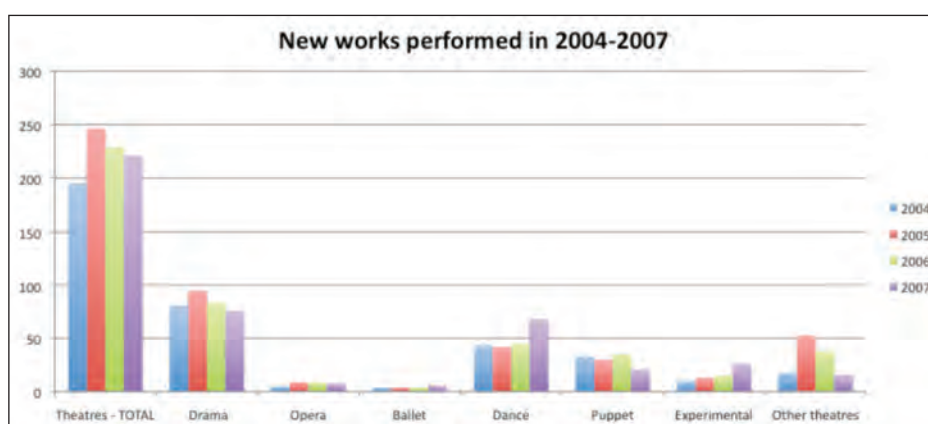
**Table 23: Activity of theatres by type of theatre (continued)**

Attendance	2004	719,450	402,446	56,163	18,560	33,910	143,341	3,490	61,540
	2005	928,629	493,758	43,822	37,088	45,773	164,672	2,808	140,708
	2006	842,256	418,140	80,804	49,022	25,329	163,595	4,550	100,816
	2007	822,351	400,190	91,847	45,767	21,440	136,806	6,633	119,668

Source: Statistical Office of the Republic of Slovenia.

Drama, dance, and puppet theatres dominate in the Slovenian theatre world, so the highest number of new works were produced in such theatres. Closer analysis shows that fewer new works were performed in 2007 than in previous years in all types of theatres, except for dance and experimental theatres (Chart 41). The latter two types of theatres managed to increase the number of new works almost every year.

**Chart 41: New works performed**

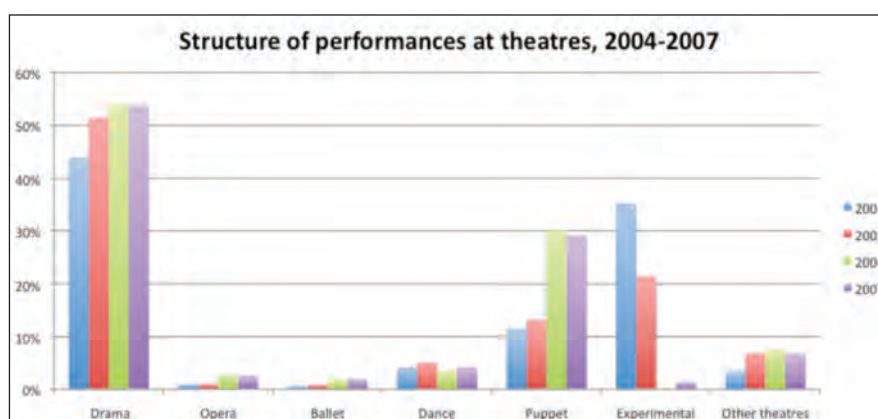


Source: Statistical Office of the Republic of Slovenia.

When the total number of performances is used to compare the activities of different types of theatres, we can see that drama theatres are by far the most important type of theatre, with over 50 percent of all performances (Chart 42). Their relative importance increased during the observed period, but the number of performances decreased.

The second most popular type of theatre is puppet theatres, with around 30 percent of all performances in 2006 and 2007. Other types of theatres, like opera, ballet, dance, experimental, and other types, each represented less than 10 percent – most of them less than 5 percent – of total performances. There was a huge increase in the number of performances in opera, ballet, and puppet theatres in 2006. In the same year, there was a sharp decrease in the number of performances in experimental theatres, followed by only a slight increase in 2007.

**Chart 42: Performances at theatres**

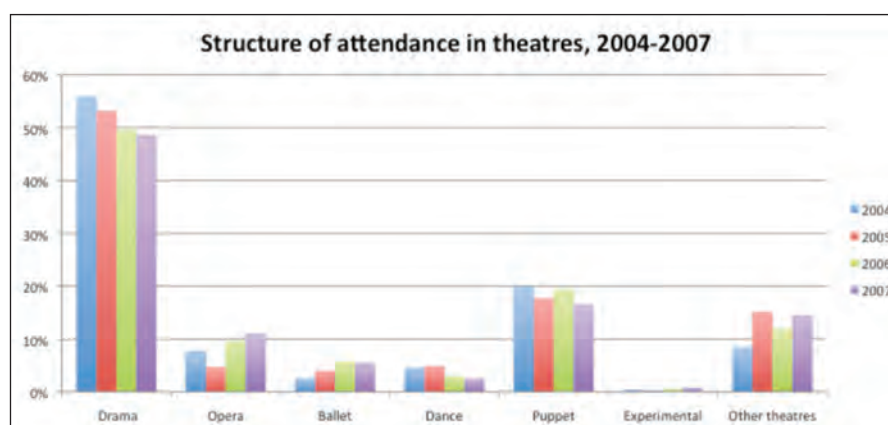


Source: Statistical Office of the Republic of Slovenia.

Attendance is highest in drama theatres, but between 2004 and 2007 it became smaller each year (Chart 43). On the other hand, the audiences of opera and ballet theatres increased over this period and have reached an over-proportional share of attendance relative to the share of performances, meaning that they have a higher average attendance of their performances than, for example, drama theatres.

Puppet theatres greatly increased their number of performances in 2006 and 2007, but their attendance did not follow this rapid growth; in fact, it even decreased by 16 percent in 2007 compared to a year before. Experimental theatres had low absolute attendance, but this increased in 2006 and 2007 when the number of performances dropped, so the average attendance per performance improved significantly.

**Chart 43: Attendance in theatres**



Source: Statistical Office of the Republic of Slovenia.

### Music

Statistical data on music activity cover only the activity of orchestras and choirs that report to the Statistical Office, and there is no data available – either from the Statistical Office or collective management organizations – for the activity of music publishers (e.g. the number of records sold; total number of musical events, such as non-orchestra concerts; and other uses of music, e.g. ringtones, film music, etc.). The analysis in this subsection is thus very limited.

Over the period 2004 to 2007 trends were generally positive for the activities of orchestras and choirs (Table 24). The number of musical works performed increased by 38 percent between 2004 and 2007. Of these musical works, in 2007, 44 percent were by Slovenian authors. The number of concerts held at headquarters and attendance at these concerts increased as well. Statistical data show a more than five-fold increase in attendance in 2006.

**Table 24: Activity of orchestras and choirs, 2004-2007**

	Number of musical works performed	Number of musical works performed – Slovenian authors	Own concerts at the orchestra / choir headquarters	Attendance at own concerts at the orchestra / choir headquarters – total
2004	1,425	731	96	11,840
2005	1,410	713	97	13,000
2006	1,787	631	100	70,190
2007	1,967	870	115	63,371

Source: Statistical Office of the Republic of Slovenia.

The musicians in our panel of industries' representatives were fairly satisfied with the copyright protection and collecting system by itself – contrary to writers – but pointed out that radio stations in particular disrespect the obligations imposed on them by the Copyright Act.

### 5.8.5 Revenues

We have analyzed the structure of revenues for cultural activities to get a better understanding of their operation. Overall, cultural activities combined received more than EUR 121 million from public sources in 2007. Around 74 percent of this was from the state budget, 19 percent was from municipal budgets and 7 percent came from EU funds (Chart 44).

**Chart 44: Public sources of cultural activities**

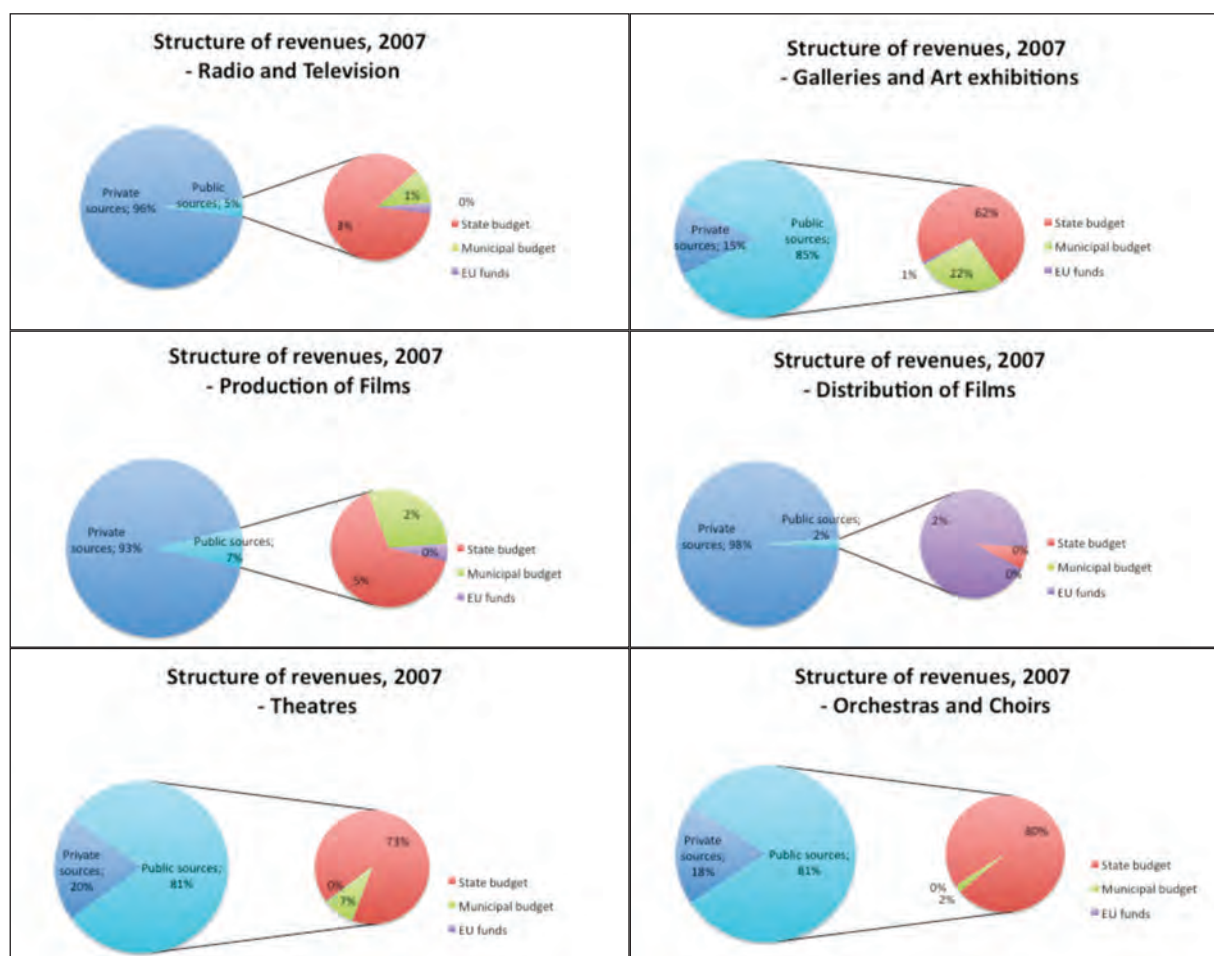


Source: Statistical Office of the Republic of Slovenia, Rapid reports No.25/2009.

Looking at the data in more detail (Chart 45), we can see that radio and television, production of films, and distribution of films had mostly private sources of revenues. In 2007 they represented more than 95 percent of all revenues. The state budget is the predominant type of public source for these industries, except for distribution of films, where EU funds play this role.

Galleries and art exhibitions, orchestras and choirs, and theatres received more than 80 percent of their revenues from public sources in 2007. For orchestras and choirs, almost all revenues came from the state budget. Theatres got around 7 percent of revenues from municipal budgets and more than 70 percent from state budgets. Galleries and art exhibitions had a higher share of municipal sources, which represented around a quarter of all public sources, while the rest came from the state budget.

**Chart 45: Structure of revenues for different cultural activities**



Source: Statistical Office of the Republic of Slovenia.

We can see that industries that are predominantly privately financed are the ones that are – as our results in Chapter V show – at the same time more productive and have a greater economic contribution. However, the direction of the causal relationship is most likely two-way: on the one hand, more productive industries attract more private funds, but on the other hand, privately financed industries are encouraged to be more productive in order to keep private sources of finance.

### 5.8.6 Copyright Awareness and Enforcement

After consultations with representatives (authors) from core copyright industries, it was discovered that the awareness of copyright protection among authors is alarmingly low. Not only do artists feel impeded because they lack appropriate knowledge of the scope of their rights when they negotiate with publishers, record labels, producers or other users of their work, but they also very rarely seek help, for example by hiring attorneys or agents to help them stop the infringements of their copyright. Almost all of the authors interviewed for this study pointed out that they do not benefit from the right-management organization, which should primarily be there to represent their interests. Insufficient knowledge of the existing legal framework and methods of effective protection was underlined by almost all authors as a major disadvantage, especially when it comes to infringements of their rights. Few of these authors ever seek legal help from attorneys or their professional organizations, because most of them expect to have no efficient redress against infringers and/or because they could not afford costly legal proceedings.

This situation is of course reflected on the side of the users of copyright content. As an example, numerous owners of bars and restaurants, hairdressers, hotels and other public spaces where music is played steadily resist payment of due royalties to collective management organizations. The same applies to sellers and



importers of blank media, who are obliged to pay a fee for each blank medium sold. Even the state-owned national broadcaster is said to resist providing right-management organizations with adequate lists of broadcasted works for several years and thus avoids payment of due fees.

From these cases alone, it is obvious that it is of vital importance to start a public campaign to raise general public awareness of the importance of copyright. Such a campaign should be supported by information about the losses caused by infringement of copyright and its effects. The government or other public institutions should start supporting short- and long-term educational activities targeting authors and right-holders, for instance information points for self-employed artists, workshops for students and young artists, free legal aid for artists and similar. The state-owned or state-run institutions (like national radio and TV, national theatres, and orchestras) should be set as examples of best practices, instead of following the mainstream path of infringers of copyright and related rights.

Professional organizations of authors and other right-holders should be encouraged to connect with umbrella organizations that would work jointly and provide their members with adequate advice. Such organizations could, in certain outstanding cases, start class actions in their interest, collect and spread information on infringements or initiate other legal actions. Once the creative force is aware of the importance of their intellectual property, they will strive to negotiate better work conditions and become diligent when assigning and transferring their copyrights to others. In the cases of imminent infringements, they might be able to react fast and prevent or at least adequately remedy the damages caused.

Competent governmental authorities (like the intellectual property office, ministry of culture, market inspectorate, police investigators, public prosecutors and others) should exchange information and plan joint activities and other common actions against infringers of copyright. In particular, regular and consistent actions against infringers in the cases of mass unauthorized use of copyright materials would be necessary (for example via internet services or by more traditional channels like copy shops, TV and radio stations, importers and sellers of blank media, etc.).

Considering the costly and long-lasting court procedures and unforeseeable outcomes, it seems likely that increasing the competence of market inspection or other administrative bodies could give faster results. The inspectors who work in the field can be much faster than the courts in observing possible irregularities and collecting relevant data and evidence. Because inspectors can impose penalties immediately (on the spot), they may be more efficient in preventing further infringements and damages. However, it is noted that at present the market inspectorate dedicates only a very small portion of its activities to copyright infringements and their actions are limited to certain users (i.e. companies using computer programs, and bars and restaurants). Therefore, the extension of the existing legal framework, which defines the competences and obligations of the market inspectorate, should be reconsidered, along with the possibility of training more inspectors and assigning them to work on particular cases of copyright infringement in regular and systematic actions.

The majority of courts in Slovenia are still fighting a backlog of court cases and therefore in extreme cases it may take more than two years before the first hearing takes place at court. Additional time is then needed before a binding decision is made and executed. Therefore, right-holders rarely seek redress from the courts and are often disappointed if the decisions are obsolete because of the lapse in time, or are inconsistent with the previous case law. This could be conquered if courts organized specialized departments for intellectual property and copyright cases and provided regular training to the judges. In addition, court decisions relating to intellectual property and copyright could be collected, published and reviewed regularly in order to provide a more comprehensive, consistent and widely available case law.

The existing data on copyright-related criminal offences shows a very low number of imposed criminal sentences. The reason for such a low number of sentences is probably the overly narrow definition of the criminal act enacted by the Slovenian Criminal Code. The Criminal Code only incriminates those infringements of copyright that were made with the intention of sale. Such a definition therefore excludes a large number of infringements that are made in order to use or enable others to use (without selling) a copyright-protected work. Moreover, such intention of sale is not "required" for infringements of related rights, which is rather inconsistent. Right-holders, as well as the Office of the State Prosecutor, have already complained about this; therefore, a review of the existing criminal code is expected. In addition, better cooperation between the inspectors, police and state prosecutors should be encouraged.

The present problems of collective management of copyright and related rights will have to be addressed more efficiently. Alleged non-transparency of collective management organizations and the absence of any effective control over their activities (in particular distribution of collected fees) is causing reluctance on the side of the authors to mandate such organizations to manage their rights, and so they mandate collective management organizations in other countries instead, decide to manage their rights individually, or even allow free use of their protected work. It is evident that the governmental authorities (most likely the Slovenian Office for Intellectual Property) should be given greater powers in relation to the supervision of the right-managing organizations and that some pressure should also be applied to the users by other state institutions (i.e. the competent state authority could force those TV and radio stations which avoid reporting and paying due fees for used copyright works to comply with legislation). At the same time, the authors (members of the right-management organizations) should be motivated to take some action and demand transparent and efficient licensing of their rights.

It is apparent that copyright legislation will need to be amended again, but more caution should be taken in order to introduce amendments that are likely to have any effect. In particular, those provisions of the existing Copyright Act that are not (fully) implemented in practice should be assessed before any further amendments are planned.



## 6. Conclusions and Recommendations

---

This is the first study of copyright-based industries in Slovenia based on the WIPO methodology. Therefore, the research team was faced with the demanding task of setting foundations for potential successive studies. The most challenging part of the process was defining the copyright-based industries, finding them in the statistical classification codes, allocating them into the four industry groups, and assigning appropriate copyright factors. Besides the official statistical data, it was very difficult to obtain any additional data and information from the industries themselves or their collective management organizations. Thus, the core analysis is based on official statistical data. However, to get additional insight into the copyright-based industry situation, we interviewed representatives of selected industries.

The main conclusion based on the analyzed statistical data is that copyright-based industries are significant to the Slovenian economy. In 2007, the total contribution of these industries was EUR 4.2 billion in production output, which represents 5.8 percent of national production output. Furthermore, these industries contributed EUR 1.7 billion in value added or 5.1 percent of national GDP. In terms of employment, copyright-based industries generated 54,506 jobs, which represented 6.8 percent of national employment. Our study showed that the productivity of copyright-based industries, measured as value added per employee, was EUR 32,025, which was below the national average of EUR 37,963. The balance of foreign trade of copyright-based industries was negative and amounted to EUR 279.1 million. This means that more copyright-protected goods are imported into Slovenia than are exported out of Slovenia. Below-average productivity and a foreign-trade deficit indicate that more efficient production and creation of higher-quality copyright-based products and services are desired.

The trend between 2002 and 2007 was mostly positive, but lower than the average for the economy. The total output of copyright-based industries grew on average by 3.1 percent per year in real terms, while the average annual real growth rate for the Slovenian economy was 4.5 percent. The average annual real growth rate of value added was 3.2 percent and was slightly below the national average real growth rate, which was 3.3 percent. These industries on average created more jobs over the observed period. The annual average growth rate in employment for copyright-based industries was 2.2 percent, while the economy average was 1.1 percent. Consequently, the average annual real growth of productivity was much lower for copyright-based industries (1 percent) than for the Slovenian economy (2.2 percent).

The economic importance of copyright-based industries is best understood by comparing their contribution to other groups of industries. Our findings show that the contribution of copyright-based industries to national GDP is similar to the contributions of public administration and common social services. The contribution is higher than the contributions made by education; health and social work; financial intermediation; electricity, gas and water supply; hotels and restaurants, etc. When other indicators of economic contribution are used for comparison, the conclusions are similar.

Comparing Slovenia to other national studies, the contribution of copyright-based industries to GDP in Slovenia is slightly lower than the average for the 21 countries that have conducted a similar WIPO-methodology-based study (5.5 percent). In the ranking of countries, Slovenia comes in 11<sup>th</sup> place. Comparing the contribution to EU countries, copyright-based industries in Hungary, the Netherlands, and Romania are contributing relatively more to their respective economies, while these industries are contributing less to their respective economies in Latvia and Bulgaria. In comparison to the most developed countries in this respect (USA and Australia), Slovenian copyright-based industries contributed only half as much to national GDP.

Among copyright-based industries, core industries make the largest economic contribution to the Slovenian economy. In 2007, core industries contributed approximately two thirds of the total contribution of copyright-based industries to GDP. Within core industries, press and literature was the most important in terms of the creation of output, value added and employment; however, software and databases, as a young and growing industry, is rapidly gaining economic importance. Among cultural (or media) industries in the core copyright industries, the ones that are mostly privately financed (film and video; radio and television) have a greater economic contribution than the mostly state-financed industries (theatres; orchestras and choirs; art galleries). Interdependent industries contributed only 12.4 percent to the total value added created by copyright-based industries. The most important industry within this group was the paper industry, which

represented approximately one third of the total value added created by the interdependent industries. Partial industries contributed 10.7 percent, while non-dedicated industries contributed 11 percent to the total value added of copyright-based industries. Within partial industries, architecture generated almost 72 percent of the total value added created by partial industries.

To identify and estimate the total effect of copyright-based industries (i.e. the direct effect, as well as indirect effects, operating via backward linkages throughout the economy) on key macroeconomic variables, we applied input-output analysis. The results suggest that the total output impact of copyright-based industries across the economy in 2007 represented around 7 percent of total domestic production, with an employment effect of 66,447 jobs (8.3 percent of total employment in Slovenia). Thus, the total value added that was created, which was directly and indirectly linked to copyright-based industries, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP in 2007.

The estimated output multiplier of copyright-based industries in Slovenia is 1.57, which means that each EUR 1,000 of copyright-based industries' final-use production will result in EUR 1,570 in total output production throughout the economy. Interestingly, this is quite comparable to the role of the tourism industry in Slovenia in terms of the direct and the multiplication effect.

While the estimated multiplier effects are not uniform across the four groups of copyright-based industries, the activities of the core industries group result in above-average multiplication effects and represent the largest share (65.8 percent) of the direct and indirect contribution made by copyright-based industries in Slovenia to the total GDP, followed in importance by the interdependent industries (11.5 percent), the non-dedicated industries (11.5 percent), and the partial industries (11.2 percent).

Considering the economic weight and results of the international comparison of copyright-based industries that have been established by this study, we believe that copyright-based industries should receive more consideration from economic policies. Decision-makers from the public and private sectors and from civil society must be made aware of the current contribution of these industries and their importance for future economic development.

Therefore, our recommendations would be twofold: the first set of recommendations is aimed at decision- and policy-makers within the copyright field, while the second will focus on the methodological aspect of this and future studies.

We noted that, despite numerous national strategic documents, Slovenia does not have a comprehensive strategic policy or document on copyright-related issues. Such a comprehensive document should focus on the following core issues: i) development of a national strategy for copyright-based industries; ii) raising general awareness of copyright; and iii) improvements in copyright and related-right enforcement.

A national copyright strategy would allow for further integration of copyright-based industries into other strategic documents at national level. For example, such a strategy would support and complement strategic documents in the field of innovation and competitiveness, since both involve a high level of copyright content. The national strategy should elaborate the future development framework of these industries, with a special focus on development and collaboration policies for these industries. Copyright-based industries consist of many different types of activities and fields (e.g. software and cultural activities) and such diversity weakens the bargaining power of these industries in comparison to other industrial sectors. However, these industries have a clear common interest in copyright protection; therefore, a coalition and collaboration between them could lead to a more favorable position toward policymakers and other stakeholders, for example professional associations and collective management organizations.

A very important element of the national strategy should be a careful elaboration of various features of copyright, such as financial, statistical, administrative, legal, and tax aspects. To this end, it would be worthwhile to review best practices in the field of copyright in those developed countries where copyright-based industries represent a significant contribution to GDP, and to consider their application to Slovenian circumstances. In any case, the policies within the strategy should be oriented toward increasing copyright system efficiency, and making the system more user-friendly and more up to date with developments in the relevant fields (e.g. globalization, advances in information and communication technology, etc.).

Besides development policy, awareness-raising policies should also be a part of the strategy. After consultations with the panel of industry representatives, it became obvious that there is a need not only to raise the general public awareness of the importance of copyright, but more importantly to take some measures to improve the knowledge of authors and other right-holders of the meaning and scope of their rights and the implications of their rights.

Although copyright infringement and the problem of piracy was not the subject of this study, we cannot escape the fact that proper legal enforcement of rights must be addressed by any strategic document in the copyright and related-rights field. A proper action plan for improvement of enforcement should be based on a thorough analysis of present industry practices. Some specific suggestions regarding possible improvements of the enforcement policy are given in chapter 5.8.6.

From the methodological aspect, our observation is that a more objective methodology for determination of copyright factors is necessary to make the WIPO studies more comparable. The first step toward a more uniform approach would be to use a standard questionnaire for semi-structured interviews with industry representatives in order to obtain relevant information upon which copyright factors are defined. The research team had difficulties in obtaining additional data (supplementary to the economic data provided by the Statistical Office) on the activities of copyright-based industries: in some cases it was impossible to obtain even basic information (e.g. the number of records sold for the music industry), which is a handicap for this and any further studies in this field. Considering that the economic effects of copyright-based industries are not marginal, it would be reasonable to review and if necessary improve the data-collection process, especially on the part of collective management organizations.

It is our hope that this pilot study, based on the WIPO guidelines, will provide valuable information for decision- and policy-makers, offer experience for future research in this field, boost the interest of the professional and the general community in copyright and also provide the initiative for a systematic and continuous approach to measuring and monitoring the contribution of copyright-based industries in Slovenia.

## Appendix

---

The WIPO Guide recommends which industries could be considered copyright-based industries and provides correspondence tables with copyright-based industries and the four-digit ISIC Rev 3.1. and, for some cases, NACE Rev. 1.1. codes of the pertaining industries. The Slovenian Standard Classification of Activities (SKD) is harmonized with NACE Rev. 1.1. to the four-digit level; however, some of the SKD classes are further disaggregated to the five-digit level, which proved to be an advantage when selecting and classifying the industries into four groups of copyright-based industries. An overview of industries considered as copyright-based industries is given in Table 25.

The statistical trade survey was used to delimit those activities for which the most detailed level of SKD classification did not provide the adequate level of detail for the identification of the copyright-based industries. For these activities the delimitation was based on the structure of sales by products. This was done for the following codes:

- 5143 Wholesale of electrical household appliances & radios & televisions;
- 5147 Wholesale of other household goods;
- 5244 Retail sale of furniture, lighting equipment & household articles n.e.c.;
- 5245 Retail of electrical household appliances & radio & television goods.

A more statistical approach (expert opinion after reviewing data of business subjects in each activity code) was used for the delimitation of the following codes, for which a percentage rate was applied to the activity code according to copyright industry:

- 3663 Other manufacturing not elsewhere classified (n.e.c.);
- 5156 Wholesale of other intermediate products;
- 5184 Wholesale of computers, computer peripheral equipment and software;
- 52488 Retail sale in other specialized shops, n.e.c.;
- 7240 Database activities;
- 74871 Organization of exhibitions, fairs and congresses;
- 74873 Other business activities n.e.c.;
- 9112 Activities of professional organizations;
- 9231 Artistic and literary creation and interpretation;
- 92521 Museum activities;
- 9272 Other recreational activities not elsewhere classified.

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology

CORE INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
<b>Press and literature</b>					
Book publishing	2211	2211	Publishing of books	100%	1
Newspapers	2212	2212	Publishing of newspapers	100%	1
Magazines/Periodicals	2212	2213	Publishing of journals and periodicals	100%	1
Other publishing	2219	2215	Other publishing	100%	1
Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	2221	2221	Printing of newspapers	100%	1
	2222	2222	Printing not elsewhere classified	100%	1
		2223	Bookbinding	100%	1
		2224	Pre-press activities	100%	1
		2225	Ancillary activities related to printing	100%	1
Wholesale and retail of press and literature	5139	5147	Wholesale of other household goods	trade statistics	1
	5239	52471	Retail sale of books	100%	1
		52472	Retail sale of newspapers, magazines	100%	1
		5250	Retail sale of secondhand goods in stores	100%	1
Authors, writers, translators	9214, 7499	74851	Translation	100%	1
		74871	Organization of exhibitions, fairs and congresses	% of "pure" core industry	1
		9240	News agency activities	100%	1
		9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
Libraries	9231	9251	Library and archives activities	100%	1
<b>Music, Theatrical Productions, Opera</b>					
Printing and publishing of music	2213	2214	Publishing of sound recordings	100%	1
Production/manufacturing of recorded music	2230	2231	Reproduction of sound recordings	100%	1
Wholesale and retail of recorded music (sale and rental)	5233, 7130, 5139	5147	Wholesale of other household goods	trade statistics	1
		5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Artistic and literary creation and interpretation	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1



**Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)**

CORE INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Performances and allied agencies (bookings, ticket agencies)	9214	9232	Operation of arts facilities	100%	1
		9234	Other entertainment activities nec	100%	1
		74871	Organization of exhibitions, fairs and congresses	% of "pure" core industry	1
<b>Film and Video</b>					
Writers, directors, actors	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
Motion picture and video production and distribution	9211	9211	Motion picture and video production	100%	1
Motion picture exhibition	9212	9212	Motion picture and video distribution	100%	1
Video rentals and sales, video on demand	7130, 9211	71402	Motion picture projection Video renting shops	100%	1
Allied services	2230	2232	Reproduction of video recording	100%	1
<b>Photography</b>					
Studios and commercial photography	7494	7481	Photographic activities	100%	1
<b>Visual and Graphic Arts</b>					
Artists	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
Art galleries and other wholesale and retail	9214	92521	Museum activities	20%	1
<b>Radio and Television</b>					
National radio and television broadcasting companies	9213	9220	Radio and television activities	100%	1
Other radio and television broadcasters	9213				
<b>Software and Databases</b>					
Wholesale and retail pre-packaged software	5151	5184	Wholesale of computers, computer peripheral equipment and software	40%	1
		2233	Reproduction of computer media	100%	1
Programming, development and design, manufacturing	7221	7221	Publishing of software	100%	1
	7229	7222	Other software consultancy and supply	100%	1

**Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)**

CORE INDUSTRIES				
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Copyright factor
Database processing and publishing	7230	7230	Data processing	100%
	7240	7240	Database activities	20%
		7260	Other computer-related activities	100%
<b>Advertising</b>				
Agencies, buying services	7430	7440	Advertising	100%
<b>Copyright Collecting Societies</b>				
Copyright collecting societies	9112	9112	Activities of professional organizations	10%*

\* Four copyright collecting societies (SAZAS, ZAMP, IPF and SAZOR) were included in the full amount; other units were included in the 10% share.

INTERDEPENDENT INDUSTRIES				
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Copyright factor
TV sets, radio sets, VCRs, CDs, cassettes, and other equipment				
Manufacture	3230	3230	Manufacture of TV & radio receivers, sound or video etc apparatus	100%
Wholesale	5139	5143	Wholesale of electrical household appliances & radios & televisions	trade statistics
Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics
Rental	7130			
<b>Computers and equipment</b>				
Manufacture	3000	3002	Manufacture of computers and other information-processing equipment	100%
Wholesale	5151	5184	Wholesale of computers, computer peripheral equipment and software	60%
Retail	7123	7133	Renting of office machinery and equipment including computers	100%
<b>Photocopiers</b>				
Manufacture	3000	3001	Manufacture of office machinery	100%
Wholesale	5159	5185	Wholesale of other office machinery and equipment	100%
<b>Musical Instruments</b>				
Manufacture	3692	3630	Manufacture of musical instruments	100%
Wholesale	5139	5147	Wholesale of other household goods	trade statistics

**Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)**

INTERDEPENDENT INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKO Code	SKD Description	Proportion	Copyright factor
Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
<b>Photographic and cinematographic instruments</b>					
Manufacture	3320	3340	Manufacture of optical instruments and photographic equipment	100%	1
Wholesale	5139	5143	Wholesale of electrical household appliances & radios & televisions	trade statistics	1
Retail	5239	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Rental	7129				
<b>Unrecorded media</b>					
Manufacture	2429	2465	Manufacture of prepared unrecorded media	100%	1
Wholesale	5152	5147	Wholesale of other household goods	trade statistics	1
Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
<b>Paper</b>					
Manufacture	2101	2111	Manufacture of pulp	100%	0.7
		2112	Manufacture of paper and paperboard	100%	0.7
		2955	Manufacture of machinery for paper and paperboard production	100%	0.7
Wholesale		5156	Wholesale of other intermediate products	68% in 2002, 72% in 2007	0.7
Retail		52473	Retail sale of paper stationery	100%	0.7

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

PARTIAL INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
<b>Apparel, textiles, and footwear</b>	1721	1710	Preparation and spinning of textile fibers	100%	0.006
		1720	Textile weaving	100%	0.006
		1730	Finishing of textiles	100%	0.006
		1740	Manufacture of made-up textile articles, except apparel	100%	0.006
		1751	Manufacture of carpets and rugs	100%	0.006
		1760	Manufacture of knitted and crocheted fabrics	100%	0.006
		1771	Manufacture of knitted and crocheted hosiery	100%	0.006
		1772	Manufacture of knitted & crocheted pullovers, cardigans and similar	100%	0.006
		1810	Manufacture of leather clothes	100%	0.006
		1821	Manufacture of footwear	100%	0.006
		1822	Manufacture of other outerwear	100%	0.006
		1823	Manufacture of underwear	100%	0.006
		1824	Manufacture of other wearing apparel and accessories nec	100%	0.006
		1910	Tanning and dressing of leather	100%	0.006
		1920	Manufacture of luggage, handbags and the like, saddlery and harnesses	100%	0.006
Wholesale	5131	1930	Manufacture of footwear	100%	0.006
		2954	Manufacture of machinery for textile, apparel and leather production	100%	0.006
		5142	Wholesale of clothing and footwear	100%	0.006
		5241	Retail sale of textiles	100%	0.006
		5242	Retail sale of clothing	100%	0.006
		5243	Retail sale of footwear and leather goods	100%	0.006
<b>Jewelry and coins</b>	3691	3621	Striking of coins	100%	0.2
		3622	Manufacture of jewelry and related articles nec	100%	0.2
		3661	Manufacture of imitation jewelry	100%	0.2
		5147	Wholesale of other household goods	trade statistics	0.2
		52485	Retail sale of watches, clocks and jewelry	100%	0.2
		5239			

**Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)**

PARTIAL INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
<b>Other crafts</b>					
Manufacture	9199	3663	Other manufacturing nec	% of "pure" industry	0.4
Retail	5239	52486	Retail sale of works of art	100%	0.4
		52488	Retail sale in other specialized shops nec	33%	0.4
<b>Furniture</b>					
Manufacture	3610	3611	Manufacture of chairs and seats	100%	0.05
		3612	Manufacture of other office and shop furniture	100%	0.05
		3613	Manufacture of other kitchen furniture	100%	0.05
		3614	Manufacture of other furniture	100%	0.05
		3615	Manufacture of mattresses	100%	0.05
Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.05
Retail		5244	Retail sale of furniture, lighting equipment & household articles nec	trade statistics	0.05
Rental	7130				
<b>Household goods, china and glass</b>					
Manufacture	2029	2051	Manufacture of other products of wood	100%	0.005
		2052	Manufacture of articles of cork, straw and plaiting	100%	0.005
	2610	2611	Manufacture of flat glass	100%	0.005
		2612	Shaping and processing of flat glass	100%	0.005
		2613	Manufacture of hollow glass	100%	0.005
		2614	Manufacture of glass fibers	100%	0.005
		2615	Manufacture & processing of other glass including technical glassware	100%	0.005
		2621	Manufacture of ceramic household and ornamental articles	100%	0.005
		2622	Manufacture of ceramic sanitary fixtures	100%	0.005
		2623	Manufacture of ceramic insulators and insulating fittings	100%	0.005
		2624	Manufacture of other technical ceramic products	100%	0.005
		2625	Manufacture of other ceramic products	100%	0.005
		2626	Manufacture of refractory ceramic products	100%	0.005
	2899	2875	Manufacture of other fabricated metal products nec	100%	0.005
		3150	Manufacture of lighting equipment and electric lamps	100%	0.005



Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

PARTIAL INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.005
Retail	5233	5244	Retail sale of furniture, lighting equipment & household articles nec	trade statistics	0.005
<b>Wall coverings and carpets</b>					
Manufacture	1722	1751	Manufacture of carpets and rugs	100%	0.04
	2109	2124	Manufacture of wallpaper	100%	0.04
	2109	2125	Manufacture of other articles of paper and paperboard nec	100%	0.04
Retail	5239	52488	Retail sale in other specialized shops nec	33%	0.04
<b>Toys and games</b>					
Manufacture	3694	3650	Manufacture of games and toys	100%	0.4
	5139	5147	Wholesale of other household goods	trade statistics	0.4
Retail	5239	52487	Retail sale of toys and children's equipment	100%	0.4
		9272	Other recreational activities nec	10%	0.4
<b>Architecture, engineering, surveying</b>					
Architecture and engineering activities and related technical consultancy	7421	7420	Architectural & engineering activities & related technical consultancy	100%	0.25
		74873	Other business activities nec	5%	0.25
<b>Interior design</b>					
Interior design	7499	74872	Fashion design and decoration	100%	0.1
<b>Museums</b>					
Museums	9232	92521	Museum activities	80%	0.5

**Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)**

WIPO Description		ISIC Rev. 3.1. Code	SKO Code	NON-DEDICATED INDUSTRIES		SKO Description	Proportion	Copyright factor
General wholesale and retailing Wholesale		51	5111	Agents in sale agric. & textile raw materials, animals, semi-finished		100%	0.0432	
				Agents involved in sale of fuels, ores, metals & industrial chemicals		100%	0.0432	
				Agents involved in the sale of timber and building materials		100%	0.0432	
				Agents involved in sale of industrial equipment, ships & aircraft		100%	0.0432	
				Agents involved in sale of household goods, hardware & ironmongery		100%	0.0432	
				Agents in sale of textiles, clothing, footwear & leather goods		100%	0.0432	
				Agents involved in the sale of food, beverages and tobacco		100%	0.0432	
				Agents specializing in sale of particular products or ranges nec		100%	0.0432	
				Agents involved in the sale of a variety of goods		100%	0.0432	
				Wholesale of textiles		100%	0.0432	
				Wholesale of electrical household appliances & radios & televisions		trade statistics	0.0432	
				Wholesale of china and glassware, wallpaper and cleaning materials		100%	0.0432	
				Wholesale of perfume and cosmetics		100%	0.0432	
				Wholesale of pharmaceutical goods		100%	0.0432	
				Wholesale of other household goods		trade statistics	0.0432	
				Wholesale of machine tools		100%	0.0432	
				Wholesale of mining, construction and civil engineering machinery		100%	0.0432	
				Wholesale of textile industry machinery and sewing & knitting machines		100%	0.0432	
				Wholesale of electronic parts and equipment		100%	0.0432	
				Wholesale of other machinery for use in industry, trade and navigation		100%	0.0432	
Wholesale of agricultural machinery & accessories, including tractors		100%	0.0432					
Other wholesale		100%	0.0432					

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

NON-DEDICATED INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Retail	52	5211	Retail in non-specialized stores, food, drink, tobacco predominating	100%	0.0432
		5212	Other retail sale in non-specialized stores	100%	0.0432
		5245	Retail of electrical household appliances & radio & television goods	trade statistics	0.0432
		52488	Retail sale in other specialized shops nec	33%	0.0432
		5250	Retail sale of secondhand goods in stores	100%	0.0432
		5261	Retail sale via mail-order houses	100%	0.0432
		5262	Retail sale via stalls and markets	100%	0.0432
		5263	Other non-store retail sale	100%	0.0432
<b>General transportation</b>					
Land transport	60	6010	Transport via railways	100%	0.0432
		6021	Other scheduled passenger land transport	100%	0.0432
		6022	Taxi operation	100%	0.0432
		6023	Other passenger land transport	100%	0.0432
		6024	Freight transport by road	100%	0.0432
		6110	Sea and coastal water transport	100%	0.0432
Water transport	61	6120	Inland water transport	100%	0.0432
		6210	Scheduled air transport	100%	0.0432
Air transport	62	6220	Non-scheduled air transport	100%	0.0432
		6311	Cargo handling	100%	0.0432
Supporting and auxiliary transport activities	63	6312	Storage and warehousing	100%	0.0432
		6321	Other supporting land transport activities	100%	0.0432
		6322	Other supporting water transport activities	100%	0.0432
		6323	Other supporting air transport activities	100%	0.0432
		6330	Activities of travel agencies & tour operators, tourist assistance nec	100%	0.0432
		6340	Activities of other transport agencies	100%	0.0432
Post and courier activities	641	6411	National post activities	100%	0.0432
		6412	Courier activities other than national post activities	100%	0.0432
<b>Telecommunications and internet</b>					
Telecommunications	6420	6420	Telecommunications	100%	0.0432
Database activities and on-line distribution of electronic content	7240	7240	Database activities	80%	0.0432

**Table 26: Determination of the Copyright Factors – A Semi-Structured Questionnaire**

<p><b>Q1. What do you consider as copyright-based activities in your company?</b></p> <p>(Discussion with the company manager in order to assure correct understanding of the copyright-based (creative) activities)</p>
<p><b>Q2. What is a typical product or service resulting from copyright-based activities in your company?</b></p> <p>(Discussion with the company manager in order to correctly estimate products and services that are the result of the creative activity in the company)</p>
<p><b>Q3. Can you evaluate the share in total sales of the products and services resulting from copyright-based activities in the company?</b></p> <p>(Discussion with the company manager in order to appropriately estimate the share in total sales of products and services that are the result of the creative activity in the company)</p>
<p><b>Q4. Which job positions or employees in your company are involved in copyright-based activities?</b></p> <p>(Discussion with the company manager in order to correctly identify which job placements and people are involved in the creative activity in the company)</p>
<p><b>Q5. Can you evaluate how much time these employees on average dedicate to copyright-based activities?</b></p> <p>(Discussion with the company manager in order to appropriately estimate the proportion of work related to copyright-based activity in the company)</p>
<p><b>Q6. Can you evaluate the share of employees in your company involved in the production of copyright-based products and services (creative activities)?</b></p> <p>(Discussion with the company manager in order to correctly estimate the share of employees involved in the company's creative activities)</p>

**Table 27: Total (input-output) employment effect of copyright-based industries in Slovenia in 2007, by sector**

Sector (based on 2-digit SKD classification)	Core	Interdependent	Partial	Non-dedicated
Products of agriculture, hunting and related services	14.23	4.97	4.25	6.73
Products of forestry, logging and related services	7.17	11.79	9.75	1.15
Fish and other fishing products, services incidental to fishing	18.83	0.60	0.92	0.64
Coal and lignite; peat	55.56	60.14	10.96	10.39
Crude petroleum and natural gas; services incidental to oil and gas extraction excluding surveying	0.00	0.00	0.00	0.00
Uranium and thorium ores	0.00	0.00	0.00	0.00
Metal ores	0.00	0.00	0.00	0.00
Other mining and quarrying products	9.17	1.66	5.45	2.24
Food products and beverages	97.86	21.52	24.28	35.58
Tobacco products	0.00	0.00	0.00	0.00
Textiles	23.16	6.86	301.73	3.15
Wearing apparel; furs	43.77	6.19	180.95	12.94
Leather and leather products	2.00	0.72	136.62	0.67
Wood and products of wood and cork (except furniture), articles of straw and plaiting materials	96.80	191.93	160.59	13.95
Pulp, paper and paper products	626.54	2063.73	30.98	13.54
Printed matter and recorded media	10896.06	158.92	41.19	40.40
Coke, refined petroleum products and nuclear fuel	0.15	0.07	0.04	0.22
Chemicals, chemical products and manmade fibers	14.95	14.99	2.74	1.82
Rubber and plastic products	40.69	45.25	10.95	19.80
Other non-metallic mineral products	66.57	14.60	36.84	15.53
Basic metals	20.10	32.53	13.79	6.38
Fabricated metal products, except machinery and equipment	200.16	80.30	185.13	47.04
Machinery and equipment n.e.c.	22.65	47.62	6.81	7.48
Office machinery and computers	17.72	704.58	6.78	2.39
Electrical machinery and apparatus n.e.c.	39.50	12.94	13.83	8.63
Radio, television and communication equipment and apparatus	8.78	1130.92	3.56	1.65
Medical, precision and optical instruments, watches and clocks	1.58	2452.75	0.54	0.31
Motor vehicles, trailers and semi-trailers	0.03	0.00	0.01	0.01
Other transport equipment	7.86	3.14	1.49	19.87
Furniture; other manufactured goods n.e.c.	28.71	44.39	1432.32	5.92
Recovered secondary raw materials	5.76	4.70	3.96	1.39
Electrical energy, gas, steam and hot water	136.38	86.17	31.01	29.83
Collected and purified water, distribution services of water	44.67	10.66	8.72	11.73
Construction work	508.83	55.78	199.29	95.23
Trade, maintenance and repair services of motor vehicles and motorcycles; retail trade services of automotive fuel	141.30	52.51	32.15	95.63
Wholesale trade and commission of trade services, except of motor vehicles and motorcycles	1246.11	982.55	251.43	853.39
Retail trade services, except of motor vehicles and motorcycles; repair services of personal and household goods	1495.01	1080.97	1401.43	1844.92
Hotel and restaurant services	658.94	75.59	81.61	252.24
Land transport and transport via pipeline services	264.17	133.87	56.19	1093.76
Water transport services	0.30	0.54	0.40	15.77

**Table 27: Total (input-output) employment effect of copyright-based industries in Slovenia in 2007, by sector (continued)**

Air transport services	10.86	2.18	1.30	47.27
Supporting and auxiliary transport services; travel agency services	98.38	37.85	18.47	1258.81
Post and telecommunication services	511.90	57.18	53.10	616.31
Financial intermediation services, except insurance and pension funding services	564.71	108.75	104.49	131.75
Insurance and pension funding services, except compulsory social security services	53.81	18.53	12.81	18.64
Services auxiliary to financial intermediation	26.47	6.99	5.82	8.75
Real-estate services	47.65	10.37	12.60	14.12
Renting services of machinery and equipment without an operator and of personal and household goods	49.13	3.82	4.87	6.64
Computer and related services	5576.77	45.60	34.62	60.44
Research and development services	92.44	63.63	16.06	9.88
Other business services	5974.40	495.78	2541.86	551.70
Public administration and defense services; compulsory social security services	154.70	26.88	32.17	75.62
Education services	268.99	69.41	37.04	40.57
Health and social work services	49.26	10.52	12.88	11.05
Sewage and refuse disposal services, sanitation and similar services	63.75	20.43	10.62	17.65
Membership organization services n.e.c.	50.26	4.53	3.66	6.10
Recreational, cultural and sporting services	9867.21	16.03	401.99	26.64
Other services	42.86	4.55	8.12	6.94
Private households with employed persons	0.00	0.00	0.00	0.00
Services provided by extra-territorial organizations and bodies	0.00	0.00	0.00	0.00







For more information contact WIPO at [www.wipo.int](http://www.wipo.int)

**World Intellectual Property Organization**

34, chemin des Colombettes

P.O. Box 18

CH-1211 Geneva 20

Switzerland

Telephone:

41 22 338 91 11

Fax:

41 22 733 54 28