

The Economic Contribution of Copyright-Based Industries in the Republic of Korea

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EXECUTIVE SUMMARY

The knowledge-based industry is the engine of economic growth of the 21st century, and the creation of knowledge relies heavily upon the protection of copyrights. Copyright laws are essential to a nation's economic development, since they protect copyright owners who wish to obtain economic gains through their creation of knowledge.

This study was commissioned by World Intellectual Property Organization (WIPO) in July 2011. The purpose of the study was to prepare statistics on the Republic of Korea's (ROK) copyright-based industries in accordance with the WIPO Guide (2003), and to analyse their contribution to the ROK economy on the basis of these statistics.

The study initially estimated the ROK copyright-based industries' output, value added, employment and external transactions during the period 2005-2009; and then generated multipliers regarding their incentive to production, value-added inducement, and job creation through an input-output analysis approach. In addition, this study describes the current status, vulnerabilities and growth potential of the ROK copyright-based industries in comparison with other countries, including the USA and Australia.

The study found that copyright-based industries are among the most important contributors to Republic of Korea's economic growth. Firstly, the ROK copyright industries grew much faster than the rest of the economy in real terms. Secondly, the number of workers in the copyright-based industries showed an average growth rate during the period 2006-2009 that was about 2.5 times higher than all industries. Thirdly, the economic impacts of the copyright-based industries are bigger than the rest of all industries in terms of output multipliers, value-added multipliers and employment multipliers respectively.

In 2009 the ROK copyright-based industries registered 105.4 trillion Korean won (KRW) in nominal value added, accounting for 9.89% of the country's GDP. Employment in this industry was reported at 1,467,000 or 6.24% of the national workforce. In terms of annual trends, the value added by the copyright-based industries steadily increased from 8.79% of the ROK's GDP in 2005 to 9.89% in 2009. The employment in this industry also exhibited a steady rise, increasing from 5.97% of the national workforce in 2005 to 6.24% in 2009.

During the period 2006-2009, the copyright-based industries' real value added recorded an average annual increase rate of 7.3%, a level much higher than that of the real GDP (3.2%). In addition, the number of employees in this industry grew at an annual average rate of 1.8%; about 2.5 times higher than that of all industries (0.7%).

As for the size of the copyright-based industries, their contribution to GDP as recorded in 2009 was similar to the size of the general government (9.8%), but much higher than construction (6.3%), wholesale and retail trade (7.6%), financial intermediation (6.1%), information and communication (3.9%) and health and social work (4.0%).

The contribution of the core copyright industries to the national economy (nominal value added by the core copyright industries/nominal GDP) grew from 3.39% in 2005 to 3.51% in 2009. The contribution to total employment (number of employees of the core copyright industries/total number of employees nationwide) steadily rose from 2.66% in 2005 to 2.85% in 2009.

Regarding the distribution of the core copyright industries, in terms of value added in 2009, software and databases accounted for 52.9% of the entire core copyright industries, followed by press and literature (16.7%), radio and television (10.1%), and advertising services (8.0%). The real value added of the core copyright industries between 2006 and 2009 increased an average of 4.2% per annum. The highest growth was recorded by the copyright collecting societies showing an increase of 12.6%. Next in line were the visual and graphic arts (9.7%), software and databases (7.5%), and photography (5.2%) industries. On the other hand, press and literature, motion picture and video, and advertising services experienced a decrease in the average annual growth rate during the same period.

The Republic of Korea is a net importing country of copyright-related goods and services. The trade deficit continued to increase to 6.0 billion US dollars in 2009, up 78.9% from 3.4 billion US dollars in 2005. The trade deficit was generated mainly by press and literature, and advertising services.

Comparing the level of contribution to GDP by the copyright-based industries of 29 countries, including the USA, Canada, and Australia, the Republic of Korea recorded 9.89%, behind the USA (11.05%) and Australia (10.30%). The Republic of Korea is followed by Hungary (6.66%) and China (6.37%). Contribution to employment is 6.24%, slightly above the average of the 29 countries (5.99%).

Contribution to GDP by the ROK core copyright industries stands at 3.51%, hovering just above the average of the 29 countries (3.03%). Australia topped this category with 7.30%, followed by the USA (6.44%), Panama (5.40%), and the Netherlands (4.00%). On the other hand, contribution to employment by the ROK core copyright industries is placed at 2.85%, which falls behind the average of the 29 countries (3.19%).

In 2009, the output multiplier of the core copyright industries was 2.0021, which was almost the same level as manufacturing (2.0810). It was higher than agriculture, forestry and fishing (0.8173), total services (1.7282), and all industries (1.9545). The value added multiplier stood at 0.8317, which surpassed those of agriculture, forestry and fishing (0.8173), manufacturing (0.5891), construction (0.7494), and total services (0.8286). On the other hand, the employment multiplier (final demand of KRW 1 billion) was estimated at 16.8, which was higher than those of manufacturing (10.0), construction (14.2), and transportation (12.7).

Based on the findings of the analysis of the copyright-based industries' economic contribution to the Republic of Korea's economy, the following implications may be inferred:

The ROK core copyright industries' contribution to GDP (3.51%) is far lower than those of the USA (6.44%) and Australia (7.30%). This implies that a strategy to galvanize these industries is required. In particular, the music industry, theatrical production and opera, and the motion picture and video production, among the core copyright industries, are of a relatively small size and burdened by a low growth rate. Therefore, it is deemed urgently necessary to implement a strategy to nurture these vulnerable sectors.

The annual average growth rate of the copyright-based industries between 2006 and 2009 was 7.3%, which was much higher than that of the GDP (3.2%). This phenomenon takes a more definite form in 2008 and 2009 when the GDP growth rates were relatively low. Accordingly, it is imperative to foster the copyright-based industries as a buffer during times of economic downturn.

As of 2009, the share of value added of the copyright-based industries was 9.89% of GDP, which was almost the same size as the general government (9.8%). It was much higher than those of construction (6.3%), wholesale and retail trade (7.6%), financial intermediation (6.1%), information and communication (3.9%), and health and social work (4.0%). Considering the size of the copyright-based industries, more emphasis must be put on developing the copyright industries as a key engine of future economic growth of the Republic of Korea.

In terms of the output multipliers, the value added multipliers and the employment multipliers, the core copyright industries showed higher multipliers than those of the total services and all industries. This means that the core copyright industries had a bigger impact on incentive to production, value added, and employment generation. Based on these findings, we surmise that fostering the core copyright industries will translate into higher rates of economic growth and employment.

The Republic of Korea was a net importing country of copyright-related goods and services during the period 2005-2009. The trade deficit in the copyright-related goods and services continued to increase to 6.0 billion US dollars in 2009 from 3.4 billion US dollars in 2005. Since the trade deficit was generated mainly by the goods and services of press and literature, and advertisement, it has been necessary to devise economic policies to boost the international competitiveness in these sectors.

1. INTRODUCTION

1.1 Background

The knowledge-based industries are frequently articulated as the driving engine of the economy of the 21st century. The creation of knowledge relies heavily upon the protection of copyrights. Copyright laws safeguarding the respect of copyrights enable the rights holders to retain the economic benefits rightfully earned through the creation of knowledge. As the economic benefits accrued from software and multimedia have recently multiplied thanks to the rapid advancement of digital technology, their copyrights have been widely recognized, thereby broadening the scope of works subject to copyright protection.

For the purpose of assuring the importance of the copyright-based industries in the Republic of Korea, the Korean Copyright Commission conducted two *'Statistical Surveys on the Size of the Domestic Copyright-Based Industries'* in 2009 and 2010, respectively. These surveys were designed to identify the status of copyright-based industries and establish relevant policies by compiling systematic data on the copyright-based industries.

The study was initiated under the direction of the World Intellectual Property Organization (WIPO) in July 2011. By compiling statistics of the Republic of Korea's copyright industries according to the WIPO Guide (2003), it was possible to obtain internationally comparable data and analyse the economic contribution of the copyright-based industries to the national economy.

1.2 Objectives

The primary objective of the study was to estimate the size of major economic variables of the copyright-based industries, such as output, value added, employment and foreign trade, and measure the industries' economic contribution to national economy. Furthermore, it is anticipated that the study will facilitate the regular production of statistics of the copyright-based industries that is currently under way.

In particular, the study was intended to further analyse some selected industries of interest among the core copyright industries in respect of their market structure, value chain, supply and demand, labour market, and the role of copyright collecting societies. This was done to help define areas for improvement, areas experiencing growth, and areas with potential for growth in the copyright-based industries.

Furthermore, in this study, the copyright-based industries' multiplying effects on output, employment and foreign trade were compared to those of other industries. As a result, the comparative advantages of the copyright-based industries were identified, which could be used when establishing policies to promote growth and advancement of the copyright-based industries and making more efficient strategic choices.

1.3 Scope

WIPO has classified the copyright-based industries into four categories by degree of dependence on copyright. These are the 'core copyright industries', the 'interdependent copyright industries', the 'partial copyright industries', and the 'non-dedicated support industries'.

Core Copyright Industries

According to the WIPO Guide (2003), the core copyright industries are 'Industries that are wholly engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.'

Interdependent Copyright Industries

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

Partial Copyright Industries

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.' To evaluate the economic contribution of the copyright-based industries, only the portion related to works and other protected subject matter is included.

Non-Dedicated Support 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, and whose activities have not been included in the core copyright industries.'

The WIPO classification of the copyright-based industries has been adopted by most countries, including the USA, in generating statistics related to the size of their copyright-based industries. This study also applied the WIPO classification and estimated the size of output, value added, employment and foreign trade of the copyright-based industries over the period of 2005-2009. Based upon the data, the industries' multiplying effects on output and employment in the Republic of Korea were computed. Moreover, current status, areas for improvement, and areas with growth potential in the copyright-based industries in the Republic of Korea were identified by comparing them with other countries such as Australia and the USA.

1.4 Methodology of the Study

1.4.1 Data Collection

In this study, the source data for estimating output, value added and employment from 2005 to 2009 were the official statistics provided by Statistics Korea. The source data for manufacturing industries were obtained from the Republic of Korea's *Mining and Manufacturing Survey*; and the source data for service industries were collected from the Republic of Korea's *Service Industry Census*, *Service Industry Survey*, *Wholesale and Retail Trade Survey* and *Transportation Industry Survey*. The *Mining and Manufacturing Survey* provides the output, value added and employment of each industry. The *Service Industry Census*, *Service Industry Survey*, *Wholesale and Retail Trade Survey* and *Transportation Industry Survey* supply the amount of sales and numbers of employment; they do not provide data on value added generated by each industry.

For this study, the data of the output for manufacturing industries were obtained directly from the 'gross output' in *Mining and Manufacturing Survey*, and the data for service industries were collected from the 'annual sales' in the relevant Surveys. For the wholesale and retail industries, the source data for the output were calculated by subtracting cost of sales from annual sales (annual sales – cost of sales).

The value-added data for manufacturing industries were supplied in *Mining and Manufacturing Survey*. As for the service industries, they were not available directly from *Service Industry Census*, *Service Industry Survey*, and *Wholesale and Retail Trade Survey*. Hence, they were estimated by multiplying the output by value-added ratio of each industry. This study used value-added ratio data obtained from the *Financial Statement Analysis* published by the Bank of Korea.

The employment data for both the manufacturing and service industries were supplied by each relevant *Survey*.

The totals of output, value added and employment of copyright-based industries were calculated by summing up the data of the sub-group industries: core copyright industries, interdependent copyright industries, partial copyright industries and non-dedicated support industries. The data on each copyright industry was estimated by applying the copyright factor of each industry.

To estimate real output and value added of copyright-based industries, the relevant price indexes were sourced. The 'producer price index' publicly announced by the Bank of Korea was used to calculate the real sales and value added for the copyright industries.

1.4.2 Convergence of Classifications

The Guide provides the convergence table between the WIPO's copyright industry classification and the International Standard Industrial Classification (ISIC)¹. To make a convergence table between WIPO Classification and Korea Standard Industry Classification (KSIC), it is essential to understand the linkage between the ISIC and KSIC. As the KSIC is based on the ISIC, the definitions of industries in KSIC are identical to the ISIC. Considering uniqueness of Korean industries, a few industries were classified differently from the ISIC.

The Guide shows the convergence of classifications based on the ISIC Rev.3.1 published in 2003. After the new ISIC Rev.4 was published in 2006, the new convergence of classification was provided by WIPO. The KSIC Rev. 9 was published by Statistics Korea in December 2007. As a result, the data of the manufacturing industries are obtainable based on the KSIC Rev.9 for the period 2005-2009. On the other hand, the data of the service industries are provided based on the KSIC Rev.8 for the period 2005-2006, and the KSIC Rev.9 for the period 2007-2009. Thus, part of the data on the service industries during the period 2005-2006 were estimated to make them consistent with those of the period 2007-2009.

In the KSIC, the main industrial activities of establishments are systematically classified depending on their similarity. Its structure and codes are as follows.² The hierarchy of classification consists of the top-level (alphabetic letters/Sections), second level (2-digit numbers/Divisions), third level (3-digit numbers/Groups), the fourth level (4-digit numbers/Classes), and the fifth level (5-digit numbers/Sub-Classes).

This study is based on the official industry classification, 'Korean Copyright Industry Classification', which was established by law in November in 2011. In consideration of the fact that using high-level classification results in the duplication of many industries, the most detailed classification (5-digit level) system was used in the Korean Copyright Industry Classification (refer to Appendix III for more details).

1.5 Structure of the Study

The rest of the study is organized as follows:

Section 2 describes copyright law in the Republic of Korea, with its recent trends and developments. It also explains the structure of copyright law and infrastructure for copyright usage in the Republic of Korea.

Section 3 covers the methods of estimating the size of copyright-based industries, and calculation methods of output, value added and number of employees. It also describes copyright factors of the Republic of Korea and their survey methods.

Section 4 contains the economic contribution of copyright-based industries to national economy. It deals with the economic contribution of output, value added, employment, and foreign trade, and compares them with other countries.

Section 5 explains the economic impact (direct and indirect) of core copyright industries and the multipliers through input-output methodology.

Section 6 deals with recent trends of key core copyright industries in the Republic of Korea such as press, music, film, broadcasting, software and databases, and advertisement, etc.

Section 7 provides summary and policy implications on the copyright-based industries in the Republic of Korea.

¹See the *Korean Standard Statistical Classification* at the Statistics Korea web page.

²In this study, 'workers' includes workers such as employers, self-employed and family workers.

2. TRENDS AND DEVELOPMENT OF COPYRIGHT LAW

2.1 Milestones in the Development of Copyright Law

Since the first copyright law was enacted in the Republic of Korea in 1957, the law, which is governed by the Copyright Act, has been amended on 18 occasions as of 2009. On the one hand, prior to the 8th amendment in 1995, most amendments adopted were largely due to the need to correspond to amendments of other laws. After the 8th amendment, on the other hand, amendments were brought in to advance the Copyright Act by keeping it updated and up to date as technological developments have exploded thanks to the digital and Internet technologies, and as a result the affected scope significantly expanded.

Table 2.1: History of Enactment and Amendment of the Republic of Korea's Copyright Law

	Descriptions	Promulgated on
Enactment	New Enactment	Jan. 28, 1957
1st	An internationally recognized system introduced to join international treaties such as the Universal Copyright Convention	Dec. 31, 1986
2nd	Relevant provisions adjusted due to the amendment of the 'Government Organization Act'	Dec. 30, 1989
3rd	Relevant provisions adjusted due to the amendment of the 'Government Organization Act'	Dec. 27, 1990
4th	Title of relevant laws revised due to enactment of the 'Libraries Promotion Act'	Mar. 8, 1991
5th	Relevant provisions adjusted due to amendment of the 'Government Organization Act'	Mar. 6, 1993
6th	Protection period of neighbouring rights extended; penal provisions toughened	Jan. 7, 1994
7th	Title of relevant laws revised due to amendment of the 'Libraries and Reading Promotion Act'	Mar. 24, 1994
8th	Copyright protection adjusted to conform to global standards to reflect the WTO TRIPS and to join the Berne Convention, etc.	Dec. 6, 1995
9th	System of conducting hearings introduced for revocation of permits for copyright trust management business, etc.	Dec. 13, 1997
10th	Right of transmission introduced; scope of immunity of libraries expanded; penal provisions toughened, etc.	Jan. 12, 2000
11th	Database producers protected; scope of liability of OSP clarified, etc.	July 10, 2003
12th	Right of transmission conferred on performers and phonogram producers	Oct. 16, 2004
13th	Titles of relevant laws revised due to the enactment of the 'Libraries Promotion Act'	Oct. 4, 2006
14th	Concepts of public transmission and digital sound transmission introduced; order for collection, destruction, deletion, and suspension of illegal copies introduced	Dec. 28, 2006
15th	Relevant provisions adjusted due to the amendment of the 'Government Organization Act'	Feb. 29, 2008
16th	Immunity of the National Library of Korea in the collection of online materials for archiving; scope of recording methods exclusively used for the visually impaired clarified; right to claim compensation for unauthorized performance introduced for performers and phonogram producers	Mar. 25, 2009
17th	The 'Copyright Act' and the 'Computer Program Protection Act' integrated; measures against illegal copying of online copyrighted works toughened	Apr. 22, 2009
18th	Title of relevant laws revised due to the amendment of the 'Act on the Promotion of Newspapers, etc.'	July 31, 2009

Source: *Copyright Yearbook 2009*, Korea Copyright Commission (2010)

The 8th amendment promulgated in 1995 signifies the transition of the Republic of Korea's copyright system to the global copyright law regime. Furthermore, the scope of the Copyright Act was substantially broadened to accommodate the newly emerging on-line realm by introducing the right of transmission in the 10th amendment; clarifying the scope of liability of online service providers (OSP) in the 11th amendment; according the right of transmission to performers and phonogram producers in the 12th amendment; introducing the concepts of public transmission and digital sound transmission in the 14th amendment; and

seeking measures to prevent illegal copying of on-line copyrighted works in the 17th amendment. Moreover, in the 17th amendment, the purpose provision included the clause ‘improvement and advancement of the industry’ and the Copyright Act and the Computer Program Protection Act were integrated, thereby further clarifying the expanding scope of the Copyright Act.

2.2 Copyright Law and the System in the Republic of Korea

2.2.1 Overview

In the 17th amendment, the Copyright Act encompassed a wide array of industries beyond the categories of creation and protection of rights by redefining the purpose of the Copyright Act and was reborn as a law governing all types of intangible digital property rights, through integration with the existing Computer Program Protection Act.

Copyright comprises the author’s property rights, author’s moral rights and neighbouring rights. The author’s property rights include the reproduction right, public performance right, public transmission right, public presentation right, distribution right, rental right and right to make derivative works. The author’s moral rights consist of the right of publication, right to the name and right of integrity. In addition, neighbouring rights are granted to performers, phonogram producers and broadcasting organizations who are creative contributors of the public transmission of copyrighted works.

As for the approach to acquiring copyrights, the Republic of Korea adopts the principle of automatic protection, whereby copyright is secured automatically upon creation of works. Authors’ property rights can be transferred or assigned in whole or in part, whereas authors’ moral rights cannot be assigned or passed on to others on the basis of the rule of inalienability.

With respect to the limitation of a copyright, which is an exclusive right, some rights are restricted for the purpose of cultural advancement or public interests in accordance with applicable laws. In the Republic of Korea, to provide the legal basis for the limitations on copyrights regarding general copyrighted works, there are 14 provisions pertaining to the reproduction for judicial proceedings, use for the purpose of school education, reproduction for private use, etc. For program works, one provision is stipulated.

2.2.2 Protection of Copyrights and International Activities

An author’s property rights to a work continue to subsist during the lifetime of an author and for a period of 50 years after his or her death. Neighbouring rights also continue for 50 years from the date of performance, publishing of phonograms and broadcasting. Civil claims for damages need to be exercised within ten years of the occurrence of the transgression or within three years of gaining knowledge of the damage or the identity of the offender; or otherwise, the rights to damages lapse by negative prescription.

With regards to remedies to criminal activities, in principle, an offence is subject to complaint by the victim. However, habitual infringements of others’ copyrights for profit-making purposes are not considered to be an offence subject to prosecution on complaint. In cases where a person deals commercially with copies of programs in the knowledge that the copies were an infringement at the time, such act is regarded as an offence that will not be prosecuted in the absence of a specific claim in this regard.

In protecting copyrights, not only control and regulation but also awareness about the breadth of the protection of copyrights is vital. To that end, education on copyright continues to be provided mainly by the Korean Copyright Commission. The cumulative number of people who have undergone training or education on copyrights between 2006 and 2009 totalled about 140,000.

Table 2.2: Number of People Who Have Undergone Copyright Education and Training

(Persons)

Year	2006	2007	2008	2009
Headcount	4,900	11,763	17,996	109,772

Source: Korea Copyright Commission

Rules and regulations on copyright tend to conform to global standards. Starting with the admission into the WIPO in 1979, the Republic of Korea became a member of eight international treaties relating to copyright as of 2009.

Table 2.3: Republic of Korea's Affiliation with International Treaties on Copyright

Treaty	Joined on	Remarks
Convention Establishing the WIPO	Mar. 1, 1979	Rules for establishing the WIPO
Universal Copyright Convention	Oct. 1, 1987	Principle of registration applied for protection of copyrights
Phonograms Convention	Oct. 10, 1987	Rules on prevention of unauthorized reproduction and distribution of phonograms
TRIPS	Jan. 1, 1995	Comprehensive rules on copyrights and neighbouring rights
Berne Convention	Aug. 21, 1996	Basic convention on copyrights
WCT	June 24, 2004	
Rome Convention	Dec. 18, 2008	
WPPT	Dec. 18, 2008	

2.2.3 Copyright Infringement and Remedies

Copyright Infringement

The extent of the copyright infringements occurring due to illegal reproductions in 2009 is shown in Table 2.4 below:

The figures show that the highest infringement amount was found in cinematographic works accounting for KRW 660 billion or 29.5% of all cases of infringement. It was followed by music works accounting for about 24.7% and press works accounting for 18.8%.

Table 2.4: The extent of Copyright Infringements in Major Markets

(Million won, %)

Classification	2008		2009	
	Amount	Share	Amount	Share
Music works	589,322	24.3	556,407	24.7
Cinematographic works	710,707	29.3	663,065	29.5
Broadcast works	262,230	10.8	220,339	9.8
Published works	447,144	18.5	423,719	18.8
Online games	414,062	17.1	386,209	17.2
Total	2,423,465	100.0	2,249,739	100.0

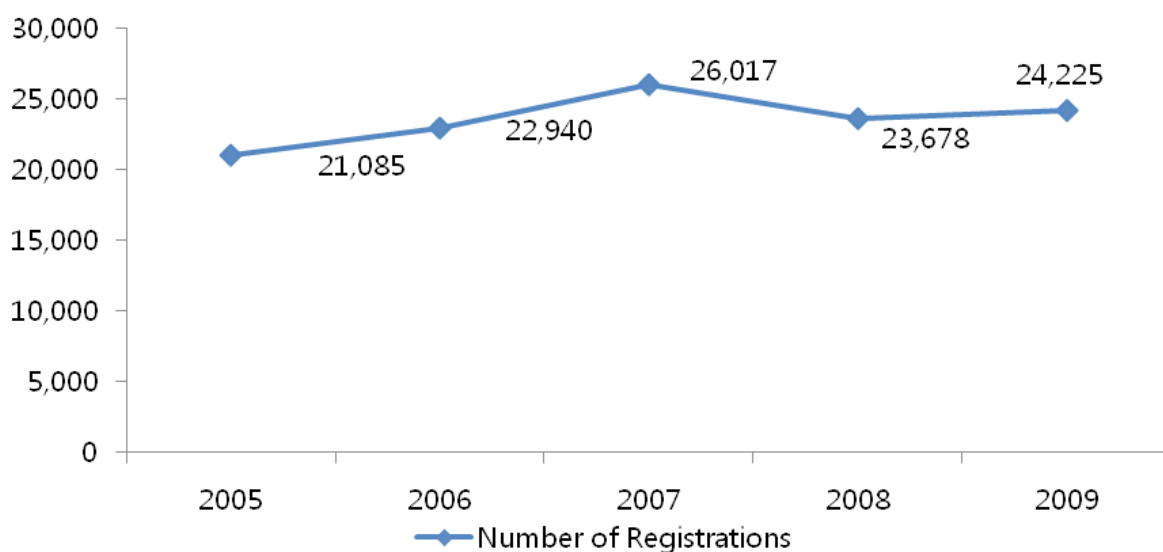
Source: 2010 Annual Report on Copyright Protection

Defences

In the Republic of Korea, copyrights are acquired on the basis of the principle of automatic protection, whereby created works are protected without registration. Registration of copyrights, however, provides more persuasive protection of rights in the event of disputes since the holder of the right would satisfy the prerequisites for counteraction and obtain the presumption of authorship. The number of copyright registrations is shown in Chart 2.1. Registrations of copyrights reached a peak of 26,017 in 2007. After undergoing a brief downward trend in 2008, they have since been on a steady rise. As of 2009, about 260,000 works including software have been registered on a cumulative basis.

Chart 2.1: Registrations of Works

(Cases)



Source: Korea Copyright Commission

Works made under the ‘for hire’ doctrine are works published under the name of non-natural persons such as an organization or a company. Their author’s property rights are protected for 50 years from the date of being made public. The number of registrations of works made ‘for hire’ is shown in Table 2.5 below. The registrations of general works reached a peak of 11,443 cases in 2007 and have been diminishing since. As for software, however, registrations increased after a slight decline in 2007. In 2009, the number of registered software totalled 9,157.

Table 2.5: Registration of Works Made for Hire

(Cases)

Year		2005	2006	2007	2008	2009
Number of registrations	General	7,295	8,897	11,443	8,153	6,807
	Software	7,998	8,352	8,074	8,957	9,157
	Total	15,293	17,249	19,517	17,110	15,964

Remedies

As the distribution and exploitation of works online become increasingly active, issues related to illegal reproductions have become more serious and widespread. The Copyright Protection Center attached to the Korean Federation of Copyright Organizations, which is an organization dedicated to the protection of holders’ rights, has clamped down on illegal online copies. The status of the detection of online copyright

infringements is shown in Table 2.6. In 2009, the highest number of infringement cases was detected in cinematographic works with about 150,000 cases, and the highest number of pieces of infringing works was found in published works with 14,387 thousand pieces.

Table 2.6: Detection of Online Copyright Infringements

Classification	2008		2009	
	Cases	Pieces	Cases	Pieces
Music	24,380	12,874,262	4,802	1,011,707
Cinematographic works	67,063	3,101,990	150,355	4,413,577
Published works	7,049	1,215,6342	5,553	14,387,822
Online games	1,461	17,030	16,991	101,724
Animations	-	-	2,327	7,179,732
Total	99,953	28,149,624	180,028	27,09,562

Source: 2010 Annual Report for Copyright Protection

In order to eradicate illegal distribution of online works, the Republic of Korea started to enforce corrective orders and recommendations in 2009. Furthermore, 29 judicial police officers were appointed to counter copyright infringement. To effectuate more reasonable and longer-term resolutions to acts of copyright infringement by juveniles, a system of suspension of prosecution on the condition that they undergo educational programmes has been introduced and operated.

The most extreme and aggressive remedy to restore infringed rights is settlement through court actions. Lawsuits instituted in relation to copyright infringement were handled as shown in Table 2.7. The number of complaints filed against violations of the Copyright Act has steadily increased, skyrocketing in 2008. In 2009, about 89,000 defendants were sued in accordance with the Copyright Act.

Table 2.7: Accusations of Violations of the Copyright Act by Year

(Persons)

Year	2006	2007	2008	2009
Headcount	18,903	25,079	91,015	89,206

Source: 2009 Copyright Yearbook

2.3 Infrastructure of Copyright Use

2.3.1 Works for Free Use

In the Republic of Korea, as part of the efforts to expand the positive use of pieces of work, the works that can be shared, such as those for which the right has expired, are maintained in a database which is made available through a free website. As illustrated in Table 2.8, the database comprised about 27,000 literary works as well as artistic works, musical works and photographic works in 2009. In addition, a database of about 8.6 million types of open source software code was established.

Table 2.8: Database for Free Use Website

(Cases)

Classification	2006	2007	2008	2009	Total
Literary works	17,300	3,843	235	5,992	27,370
Artistic works	30	752	1,111	3,175	5,068
Musical works	1	216	556	21	794
Photographic works		280	182	2,388	2,850
Open source SW code				8,600,000	8,600,000

Source: Korea Copyright Commission

2.3.2 Distribution of Copyrighted Works

Actual rights to products of copyrighted works have become highly complicated as their convergence has rapidly accelerated. In the Republic of Korea, copyright trust services are rendered on the basis of categories and rights. Such separate administration and management of rights have caused a wide range of difficulties on the side of users with respect to transactional or tracking costs. As such, the 'Information Management System for Integrated Copyrights' was established in a bid to improve the efficiency of copyright management. Copyrighted works managed through this system are assigned a control number called an Integrated Copyrights Number (ICN). As many as 1.29 million pieces of copyright information were managed through this system in 2009.

Table 2.9: Integrated Copyright Meta-Database

(Cases)

Classification	2008	2009	Total
Musical works	Domestic	370,000	385,000
	Foreign		100,000
Literary works	400,000	400,000	800,000
Broadcast works		11,000	11,000
Total	770,000	526,000	1,296,000

Source: Korea Copyright Commission

Moreover, the Copyright License Management System (CLMS), which is a one-stop online transaction system for copyrighted works based on the ICN information, has been established and operated. The CLMS carried out 750 transactions in 2009, of which 353 transactions were contracted, indicating a ratio of approximately 47% successful contracts.

Table 2.10: Usage of the CLMS

(Cases, %)

Year	Contracts Requested	Contracts Signed	Successful Contract Ratio
2008	407	147	37
2009	750	353	47

3. METHODOLOGY OF ESTIMATING THE ECONOMIC CONTRIBUTION OF COPYRIGHT INDUSTRIES

3.1 Methods of Estimation

3.1.1 Method of Estimating Output

The data on the output of the copyright-based industries were estimated, based on their revenue statistics obtained from the *Mining and Manufacturing Survey*, *Service Industry Census*, *Service Industry Survey*, and *Wholesale and Retail Trade Survey*. The data on output of the manufacturing industries were collected directly from gross output data in the *Mining and Manufacturing Survey*. The data on the output of service industries were obtained from sales amount data in the *Service Industry Census* and the *Service Industry Survey*. However, the data on the output of wholesale and retail trade industry were calculated by subtracting cost of sales from sales amount in the *Wholesale and Retail Trade Survey*.

3.1.2 Method of Estimating Value Added

The data on value added of the manufacturing industries were provided in the *Mining and Manufacturing Survey*, and therefore they were collected directly from the Survey. But the data on value added of service industries were not available directly from the *Service Industry Census* and *Service Industry Survey*. Accordingly, they had to be estimated using the data on value added ratio (value added/output) by industry. In this study the data on value added ratios were obtained from the Financial Statements Analysis published by the Bank of Korea. Value added of service industries was calculated by multiplying output by value added ratio.

3.1.3 Method of Estimating Employment

The data on the number of workers were obtained from the *Mining and Manufacturing Survey*, *Service Industry Census*, *Service Industry Survey* and *Wholesale and Retail Trade Survey*. Workers include employees and proprietors.

3.1.4 Method of Estimating Real Value

Real values of output and value added of the copyright-based industries were estimated by using the Producers Price Index published by the Bank of Korea. The reason for preparing the real values of the copyright-based industries is that such values, which exclude the impact of price changes, are needed to calculate the growth rates of the copyright-based industries, compare the figures with the growth rate of the GDP, and estimate the level of contribution to the growth rate of GDP.

3.2 Method of Estimation by Sector

3.2.1 Estimates of the Core Copyright Industries

The core copyright industries consist of the press, newspapers, printing and reproduction using other blank recording materials, terrestrial broadcasting, software and databases, advertising, motion pictures and videos, theatrical production, photography, visual and graphic arts, and so forth.

According to the Guide, '1' was used as the copyright factor (weight) of the core copyright industries. In other words, when calculating the copyright industries' contribution to the national economy, a 100% weighting was applied. Accordingly, the core copyright industries' output, value added, and number of employees were calculated by multiplying the original data of the industries by the copyright factor (weight=1.0).

Size of the core copyright industries = output, value added, and number of employees of the core copyright industries × 1.0

3.2.2 *Estimates of the Interdependent Copyright Industries*

The interdependent copyright industries encompass TV sets, CD players, electronic game equipment, computers and peripheral equipment, acoustic apparatus and musical instruments, cameras and projectors, blank recording materials, paper, etc. In some studies, weighting was applied to the interdependent copyright industries. As in the case of the USA, this study used '1' as the copyright factor for all interdependent copyright-related economic activities.

Size of the interdependent copyright industries = output, value added, and number of employees of the interdependent copyright industries × 1.0

3.2.3 *Estimates of the Partial Copyright Industries*

The partial copyright industries comprise various industries including the manufacturing industries related to textiles, apparel, coins, furniture, household glass and china, carpets, toys and games, architecture and engineering-related services, interior design, and museums. The copyright activities of partial copyright industries were calculated by multiplying their sizes by their copyright factors (weights). Each country has a different copyright factor with regard to the same industry, since its industrial structure and stage of economic development varies considerably. Each country calculates its own copyright factors by conducting an independent copyright factor survey.

Size of the partial copyright industries = output, value added, and number of employees of the partial copyright industries × copyright factor

3.2.4 *Estimates of the Non-Dedicated Support Industries*

The copyright factor (weight) of the non-dedicated support industries is essential in estimating the level of the copyright activity. This study utilizes the methodology presented in the WIPO Guide (2003). It is assumed that the copyright factor of the non-dedicated support industries is identical to the share (α) of the value added of the core, interdependent and partial copyright industries to the GDP, except the value added of the non-dedicated support industries. The copyright factor of the non-dedicated support industries is calculated as follows:

Copyright factor (α) of the non-dedicated support copyright industries =
 Value added (of the core, interdependent, and partial copyright industries)
 GDP – Value added of the non-dedicated support industries

Size of the non-dedicated support industries = output, value added, and the number of employees of the non-dedicated support industries × α

3.3 Survey of Copyright Factors

3.3.1 *Overview of Copyright Factors*

In order to evaluate the economic contribution by the copyright-based industries, it is necessary to extract and add together only those economic activities arising from works protected by copyrights. A copyright factor represents a weight designed to extract pure copyright activities from all copyright-based industries.

It is generally accepted that the copyright factors for the core and interdependent copyright industries are placed at 1. As for the partial copyright industries, copyright factors are obtained from a sample survey based on the WIPO questionnaire. In addition, the copyright factors of the non-dedicated support industries are measured on the basis of the WIPO Guide.

3.4 Copyright Factor Survey of the Republic of Korea

3.4.1 Overview of the Survey

The survey covered all industries that belonged to the partial copyright industries. Respondents were the presidents of companies or responsible officers at the general affairs departments/management supervision departments. The methodology adopted comprised telephone interviews using a preset questionnaire based on the WIPO Guide (see Appendix II). In addition, proportional quota sampling was conducted based on ratios by region/company size. A total of 351 effective samples were obtained.

Table 3.1: Overview of the Survey

Description	Copyright Factor Survey for the Korean Copyright Industries
Scope of the survey	Producers/distributors of apparel, textiles, footwear, etc.; Furniture manufacturers; Producers/ distributors of household goods, china and glass, etc.; Producers/distributors of wall covering and carpets ; Producers/ distributors of toys and games; Companies related to architecture, engineering and surveying; Companies related to interior design; Companies related to museums
Processors/distributors of jewellery and coins; respondents	Presidents of companies and responsible officers at the general affairs departments/ management supervision departments
Survey Method	Telephone interview using a structured questionnaire
Sampling method	Proportional quota sampling based on ratios by region/company size
Effective samples	351 companies
Research agency	World Research Corporation

3.4.2 Survey Items

Items of the survey included basic company information, major products, level of importance assumed by copyrights, existence of any income and expenditure arising from the use of copyrights, ratio of employees performing 'creative activities', etc. These survey elements represented key items put forward in the WIPO Guide.

The definition of creative activities in this survey is taken from the WIPO Guide. Creative activities include product/service creation and development, for example a craftsman drawing the designs for his jewellery.

Among the four survey items, the ratio of employees performing creative activities was utilized as a main variable of copyright factor for the following reasons: First, the other three survey items (importance of copyrights, portion of royalties and licence fees in total expenditures, and portion of turnover/sales attributable to copyright or creative activities) are highly likely to be answered based on "perceptions" rather than concrete figures. Accordingly, the ratio of employees performing creative activities is assumed to be a far more accurate variable. Second, the ratio of employees performing creative activities would correspond to the ratio of copyright-related turnover/sales assuming that the number of employees and the turnover/sales are proportionate to each other.

Table 3.2: Survey Items

Description	Survey Items
Basic company information	<ul style="list-style-type: none"> • Company name, telephone number, industrial classification, turnover/sales, number of employees
Company products	<ul style="list-style-type: none"> • Major products
Information on copyrights	<ul style="list-style-type: none"> • Importance of copyrights (existence of any income or expenditure arising from the use of copyrights) • Portion of royalties and licence fees in total expenditures • Portion of turnover/sales attributable to copyright or creative activities • Ratio of employees performing creative activities

3.4.3 Population

With regard to a survey, it is most desirable to use companies which are listed in 'The Census on Establishments' provided by Statistics Korea as the population. However, such data were not available because the copyright factor survey did not show statistics approved by Statistics Korea. Under these circumstances, the population used was obtained from those companies listed in the National Comprehensive Survey on Companies 2010 by the Korean Chamber of Commerce and Industry.

3.4.4 Copyright Factors of the Republic of Korea

The table below presents the copyright factors of the copyright-based industries. The copyright factors for the ROK core and interdependent copyright industries were placed at '1.0', which was generally accepted internationally. This means that all output, value added, and employees are considered as copyright industries.

Survey results regarding the ratio of employees performing creative activities were used in order to calculate the copyright factors of the partial copyright industries. These results provided relatively accurate figures, and the copyright industries' output, revenues and value added are determined in proportion to the number of employees deployed.

In this study, copyright factors were obtained from the result of the survey conducted in 2011. Only one copyright factor related to the architecture, engineering and surveying industries was modified, since the original figure appeared to be relatively high. A new factor was estimated by monitoring architecture and engineering firms together with their industry association.

Table 3.3: Copyright Factors of the Republic of Korea

Copyright-Based Industries	Copyright Factor				
1. Core copyright industries	Copyright Factor				
2. Interdependent copyright industries	1.0				
3. Partial copyright industries					
Apparel, textiles and footwear					0.115
Jewellery and coins					0.214
Other crafts					0.214
Furniture					0.099
Household goods, china and glass					0.089
Wall covering and carpets					0.215
Toys and games					0.150
Architecture, engineering and surveying					0.325
Interior design					0.723
Museums					0.108
4. Non-dedicated support industries	2005	2006	2007	2008	2009
	0.093	0.095	0.095	0.104	0.107

4. ECONOMIC CONTRIBUTION OF THE COPYRIGHT-BASED INDUSTRIES

4.1 A. Copyright-Based Industries

4.1.1 Overview

The Republic of Korea's copyright-based industries made significant contributions to the national economy in 2009 as follows:

KRW 247.4 trillion output in nominal terms

KRW 105.4 trillion value added in nominal terms (9.89% of GDP)

1,467 thousand employees (6.24% of nation-wide employment).

In short, 9.89% of the ROK's GDP was generated by the copyright-based industries, and 6.24% of the workforce in the Republic of Korea was employed by the copyright-based industries.

Table 4.1: Summary of Copyright-Based Industries in 2009

Industry	Output (billion won)	Value Added (billion won)	GDP Shares (%)	Employees (1,000 persons)	Employment Shares (%)
1.Core copyright	86,074	37,434	3.51	670	2.85
2.Interdependent copyright	120,538	50,629	4.75	374	1.59
3.Partial copyright	14,775	6,988	0.66	158	0.67
4.Non-dedicated support	25,967	10,319	0.97	264	1.12
Copyright-based industries	247,354	105,370	9.89	1,467	6.24
ROK economy	N/A	10,264,518	100.00	23,506	100.00

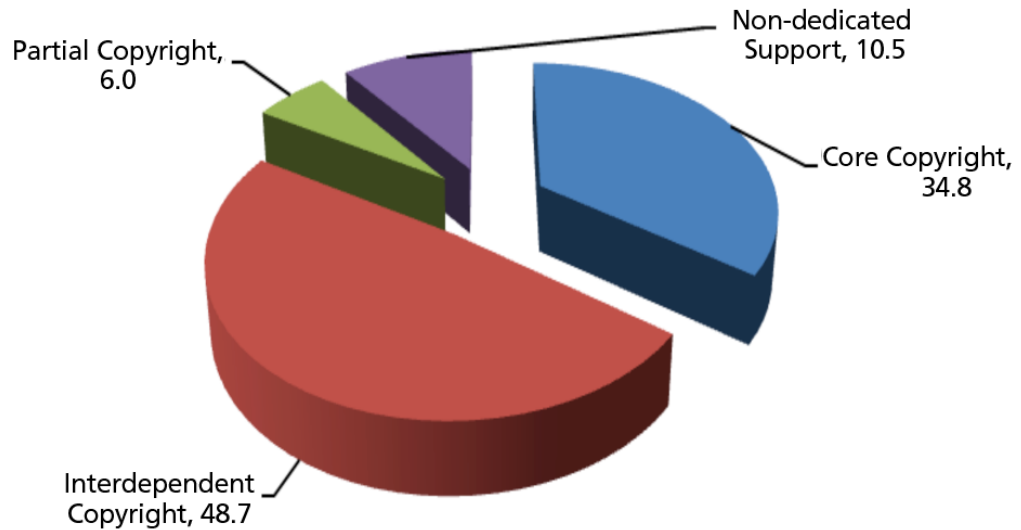
4.1.2 Distribution of Copyright-Based Industries

(1) Output 2009

The largest group within the copyright-based industries in terms of output was the interdependent copyright industries. The output of interdependent copyright industries amounted to KRW 120.5 trillion, or 48.7% of the total copyright-based industries. The output of core copyright industries stood at KRW 86.1 trillion, or 34.8% of the total copyright-based industries. It is noteworthy that the Republic of Korea recorded the highest share of interdependent copyright industries, while most countries showed the highest share of core copyright industries. This was mainly because the output of the TV and mobile phone industry in the Republic of Korea was much bigger compared to other countries. The aggregate output of the interdependent and core copyright industries accounted for 83.5% of the total copyright-based industries.

Chart 4.1: Share of Output in the Copyright-Based Industries in 2009

(%)

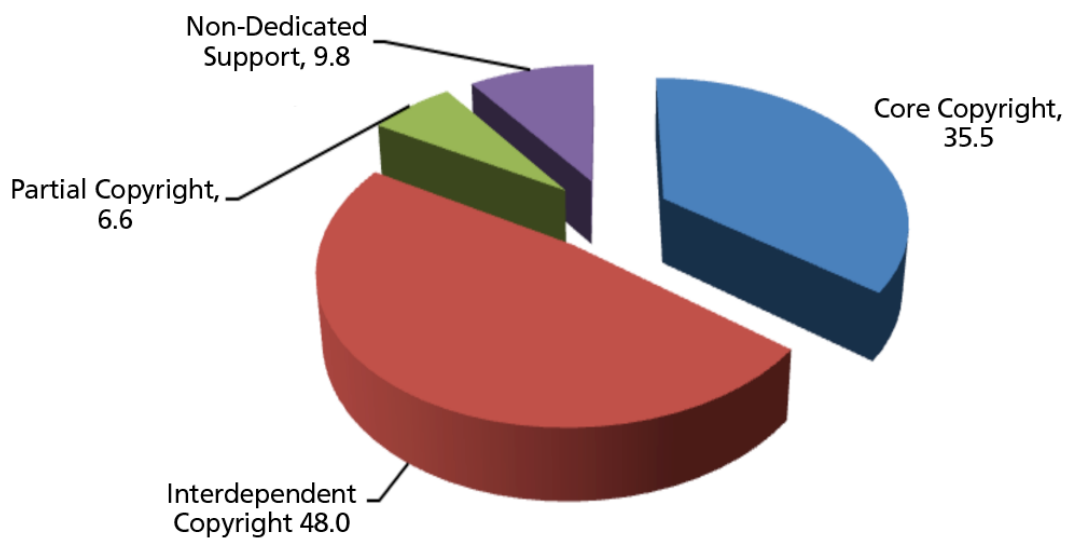


(2) Value Added 2009

As in the output, the largest groups in terms of value added were the interdependent copyright industries and core copyright industries. The value added of the interdependent copyright industries amounted to KRW 50.6 trillion, or 48.0% of the copyright-based industries. The value added of the core copyright industries was KRW 37.4 trillion, or 35.5% of the total copyright-based industries. The combined value added of these two industries accounted for 83.5% of the copyright-based industries.

Chart 4.2: Share of Value Added in the Copyright-Based Industries in 2009

(%)



(3) Employment 2009

In terms of employment, the core copyright industries were the largest contributor, generating 45.7% of the total copyright-based industries. An estimated 374 thousand workers (25.5%) were employed by the interdependent copyright industries. With respect to output and value added, the share of the interdependent copyright industries was higher than that of the core copyright industries; however, in terms of employment, the share of the interdependent copyright industries was lower. This indicated that the interdependent copyright industries are more capital-intensive than the core copyright industries. Meanwhile, the non-dedicated support industries absorbed 264 thousand workers, accounting for 18.0% of the employment of copyright-based industries.

Chart 4.3: Share of Employment in the Copyright-Based Industries 2009

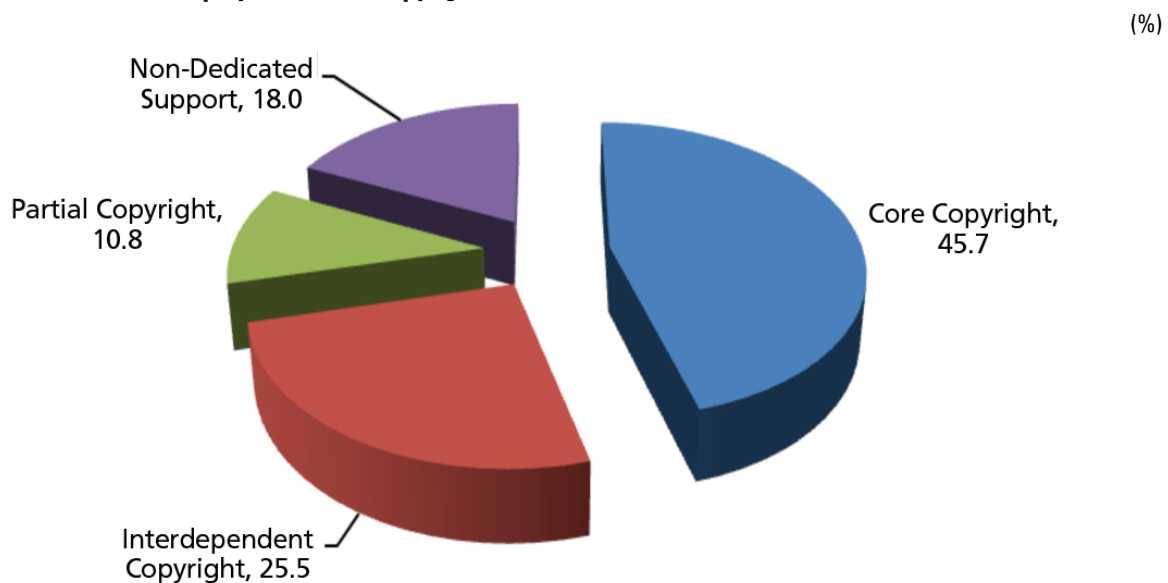


Table 4.2: Components of Copyright-Based Industries 2009

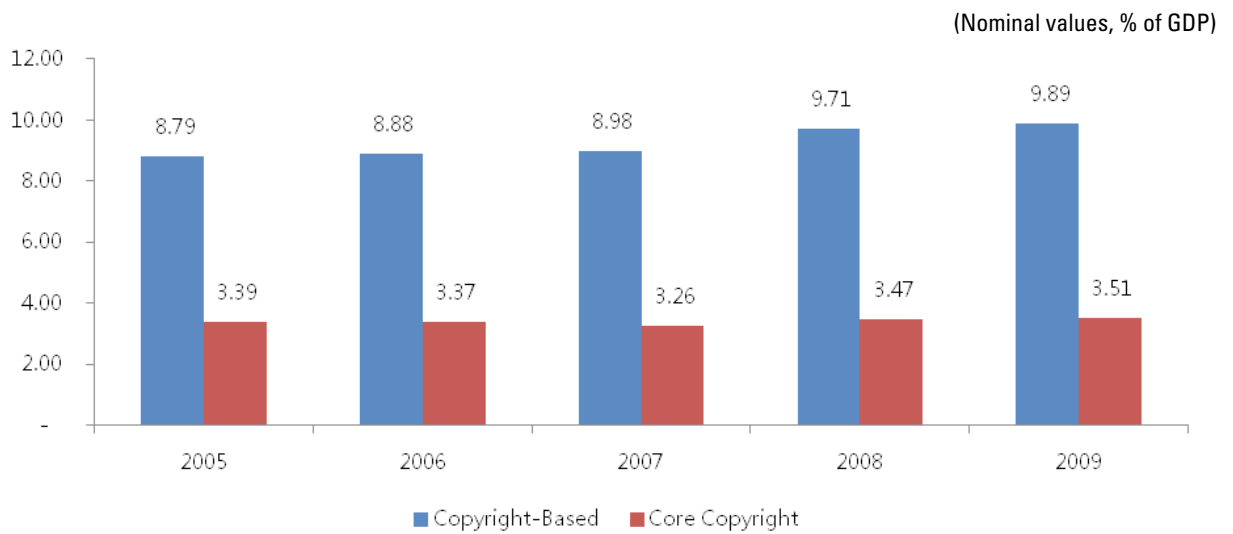
Industry	Output (nominal)		Value Added (nominal)		Employees (persons)	
	Billion won	Ratio (%)	Billion won	Ratio (%)	Thousand	Ratio (%)
1. Core copyright	86,074	34.8	37,434	35.5	670	45.7
2. Interdependent copyright	120,538	48.7	50,629	48.0	374	25.5
3. Partial copyright	14,775	6.0	6,988	6.6	158	10.8
4. Non-dedicated support	25,967	10.5	10,319	9.8	264	18.0
Total copyright industries	247,354	100.0	105,370	100.0	1,467	100.0

4.1.3 Trends of Copyright-Based Industries

(1) Trends in Value Added

In terms of contribution to the GDP (nominal), the share of the copyright-based industries increased continuously from 8.79% in 2005 to 9.89% in 2009. On the other hand, the share of the core copyright industries increased slightly from 3.39% in 2005 to 3.51% of GDP in 2009.

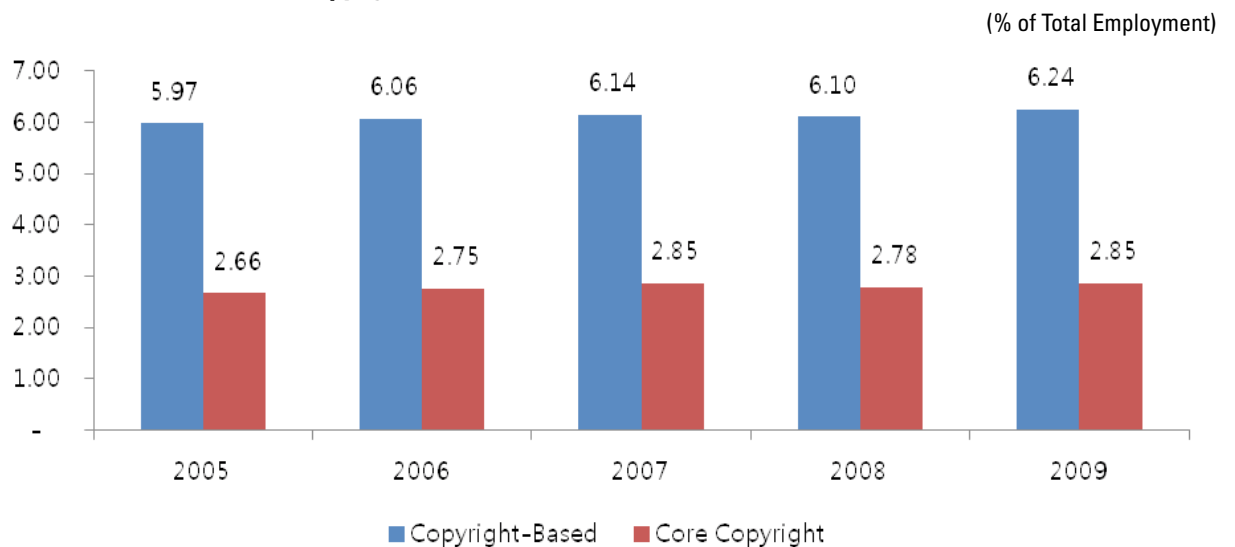
Chart 4.4: Relative Size of Copyright Industries



(2) Trends in Employment

The contribution of the copyright-based industries to nationwide employment increased slightly from 5.97% in 2005 to 6.24% in 2009. The employment contribution of the core copyright industries also rose slightly from 2.66% in 2005 to 2.85% in 2009.

Chart 4.5: Relative Size of Copyright Industries



4.1.4 Growth of the Copyright-Based Industries 2006-2009

Output, value added and employment of the copyright-based industries in the Republic of Korea grew, in real terms, as follows:

Output of the copyright-based industries increased at an average rate of 6.9% per annum in real terms over the period 2006-2009, while value added grew in real terms at an average of 7.3% per annum. Both outperformed the nation's average real GDP growth (3.2%).

The number of employees engaged in the copyright-based industries for the period 2006-2009 rose at an average rate of 1.8% per annum, topping the employment growth in all industries by 0.7%.

Table 4.3: Growth Rate of Copyright-Based Industries

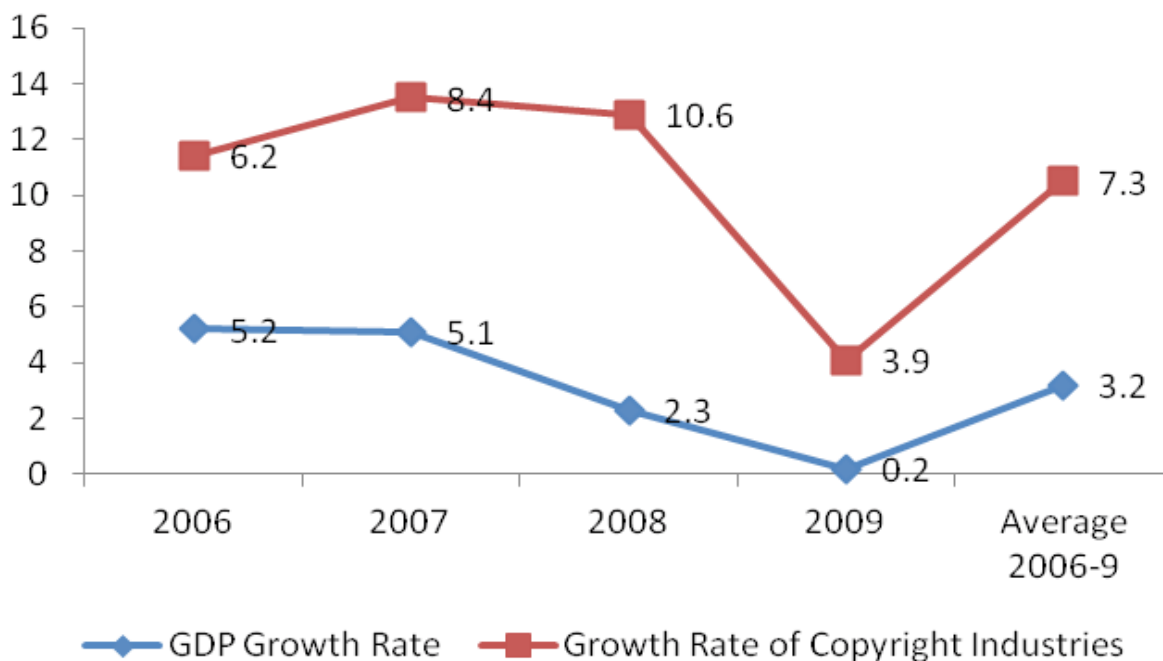
(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
Output	6.6	5.5	10.4	5.2	6.9
Value added	6.2	8.4	10.6	3.9	7.3
Employment	2.8	2.6	-0.02	1.9	1.8
GDP	5.2	5.1	2.3	0.3	3.2
Total number of employees	1.3	1.2	0.6	-0.3	0.7

The growth rates of the real value added of the copyright-based industries and the Republic of Korea's real GDP are presented in Chart 4.6 below. Considering the annual average growth rate of the copyright-based industries between 2006 and 2009, the growth rate of real value added of the copyright-based industries was much higher than that of the GDP. This phenomenon takes a more definite form in 2008 and 2009 when the GDP growth rates were relatively low.

Chart 4.6: Growth in Value Added of Copyright Industries

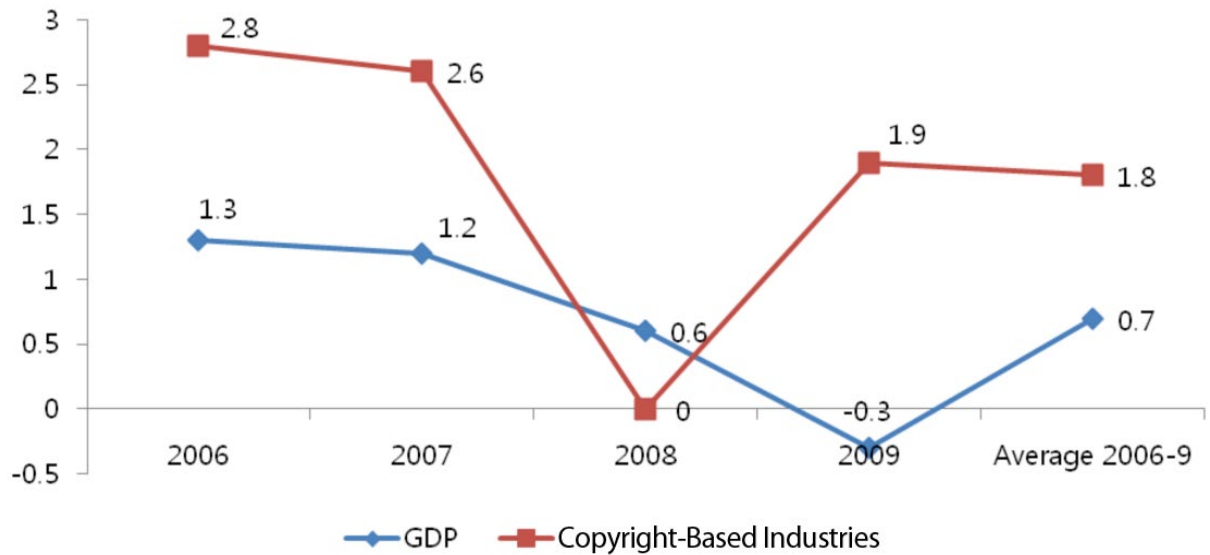
(2005 Prices, %)



Employment in the copyright industries in the Republic of Korea between 2006 and 2009 grew at an average rate of 1.8% per annum, which was about 2.5 times higher than that of all industries (0.7%). In 2009, the number of employees of all the industries in the Republic of Korea declined by 0.3% from the previous year whereas that of the copyright-based industries rose by 1.9%.

Chart 4.7: Employment Growth of Copyright-Based Industries

(%)



4.1.5 Comparison with Other Industries

The value added generated by the copyright-based industries was KRW 105.4 trillion, 99% of GDP. The size of the copyright-based industries was almost the same size of general government (9.8%), and was much bigger than those of construction (6.3%), wholesale and retail trade (7.6%), financial intermediation (6.1%), information and communication (3.9%), and health and social work (4.0%).

Table 4.4: Value Added of Selected Industries

	2005		2009	
	Billion won	% of GDP	Billion won	% of GDP
Copyright-based industries	76,051	8.8	105,370	9.9
(Core copyright industries)	(29,345)	(3.4)	(37,434)	(3.5)
General government	78,929	9.1	104,696	9.8
Manufacturing	213,646	24.7	266,578	25.0
Construction	59,285	6.9	66,577	6.3
Wholesale and retail trade	64,193.9	7.4	80,757.0	7.6
Financial intermediation	53,395	6.2	65,036	6.1
Information and communication	36,256	3.9	41,225	3.9
Health and social work	28,558	3.3	43,092	4.0
GDP	865,241	100.0	1,065,037	100.0

4.2 Core Copyright Industries

The core copyright industries are those 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' (WIPO Guide, p.29). These industries have a substantial level of involvement in copyright activities and their direct economic contribution to output, value added, and employment is taken at full value. The core copyright industries encompass the following industries:

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

4.2.1 Overview

Trends in the core copyright industries in the Republic of Korea during the period 2005-2009 are as follows:

The nominal output of the core copyright industries totalled KRW 86.1 trillion in 2009, up 34.3% from KRW 64.1 trillion in 2005, while their real output increased 23.8% during the period 2005-2009 (an average annual increase of 5.5%).

The nominal value added of the core copyright industries amounted to KRW 37.4 trillion in 2009, up 27.6% from KRW 29.3 trillion in 2005, while their real value added increased 17.6% over the period 2005-2009 (an average annual increase of 4.1%).

The number of persons employed by the core copyright industries was 670 thousand persons in 2009, up 10.1% from 609 thousand persons in 2005 (an average annual increase of 2.4%)

Table 4.5: Summary of the Core Copyright Industries

(Billion won; thousand persons; %)

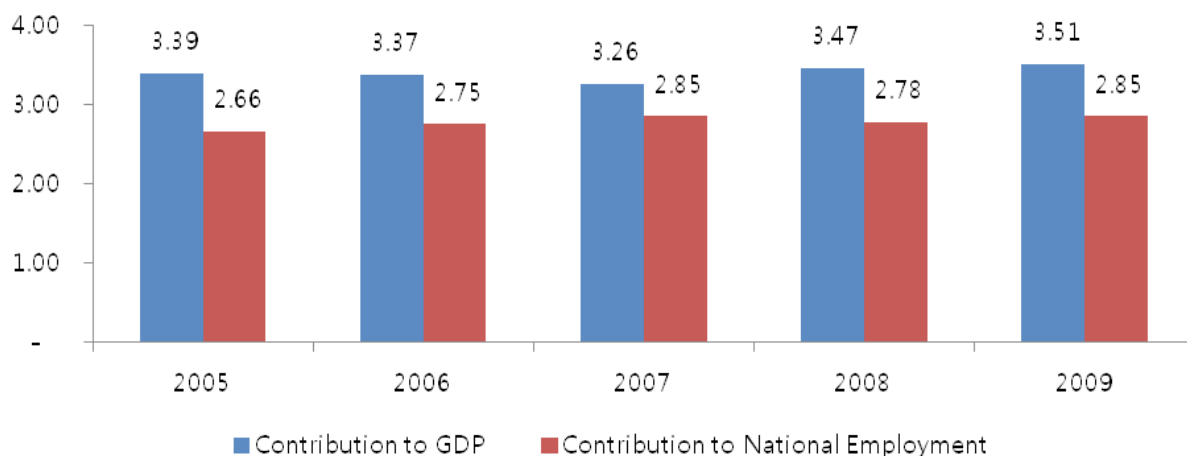
		2005	2006	2007	2008	2009	2009/2005
Output	Nominal (change)	64,090 (-)	70,276 (9.7)	73,072 (4.0)	79,631 (9.0)	86,074 (8.1)	- (34.3)
	Real (change)	64,090 (-)	69,406 (8.3)	70,454 (1.50)	74,710 (6.0)	79,313 (6.2)	- (23.8)
Value added	Nominal (change)	29,346 (-)	30,645 (9.7)	31,812 (4.0)	35,574 (9.0)	37,434 (8.1)	- (27.6)
	Real (change)	29,346 (-)	30,257 (3.1)	30,667 (1.3)	33,376 (8.8)	34,523 (3.4)	- (17.6)
Employment	Number of employees (change)	609 (-)	637 (4.6)	668 (4.9)	655 (-2.0)	670 (2.3)	- (10.1)

The contribution of the core copyright industries to the national economy (nominal value added by the core copyright industries/nominal GDP) grew from 3.39% in 2005 to 3.51% in 2009. The contribution of the core copyright industries to total employment (number of employees of the core copyright industries/total number of employees nationwide) steadily rose from 2.66% in 2005 to 2.85% in 2009.

The contribution of the core copyright industries to GDP is higher than its contribution to total employment. This indicates that the employees in the core copyright industries receive, on average, higher wages than those in all the other industries.

Chart 4.8: Trends in the Contribution of the Core Copyright Industries to the ROK Economy

(%)



4.2.2 Output

(1) Nominal Output by Sector

The nominal output of the core copyright industries totalled KRW 86.1 trillion in 2009, up 34.3% from KRW 64.1 trillion in 2005. As regards the growth ratio for each sector between 2005 and 2009, the copyright collecting societies industry showed the highest increase rate of 72.1%, followed by the visual and graphic arts (68.5%), software and databases (55.3%), and photography (41.5%).

Table 4.6: Output of Core Copyright Industries by Sector

(Nominal values, billion won; %)

	2005(A)		2009(B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. Press and literature	13,373	20.9	15,090	17.5	12.8
2. Music, theatrical productions and operas	3,221	4.8	4,049	4.7	25.7
3. Motion picture and video	1,908	3.0	1,96	2.3	4.1
4. Radio and television	8,136	12.7	10,286	12.0	26.4
5. Photography	1,399	2.2	1,979	2.3	41.5
6. Software and databases	27,953	43.7	43,420	50.4	55.3
7. Visual and graphic arts	911	1.4	1,535	1.8	68.5
8. Advertising services	7,177	11.2	7,706	9.0	7.4
9. Copyright collecting societies	13	0.02	23	0.03	72.1
Total	64,090	100.0	86,074	100.0	34.3

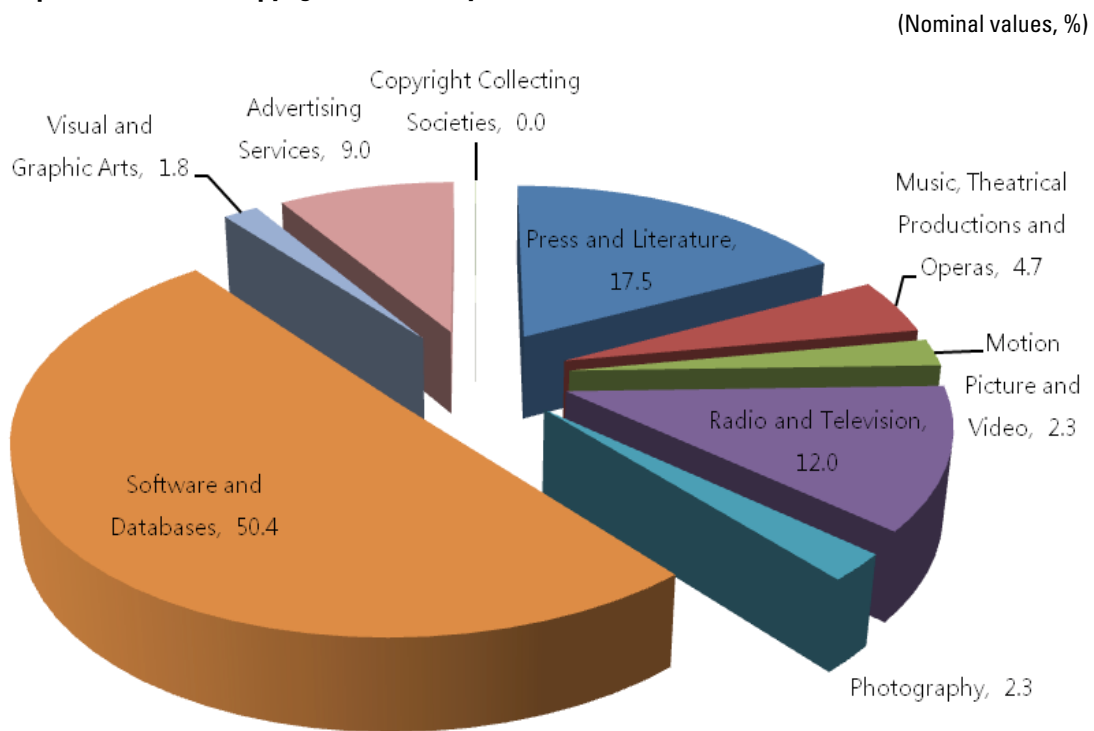
The five major industries in terms of size as of 2009 were:

1. Software and databases
2. Press and literature
3. Radio and television
4. Advertising services
5. Music, theatrical productions and operas.

These industries constituted KRW 80.6 trillion, accounting for 93.6% of the total copyright industries in terms of output. The software and databases accounted for the largest share of 50.4% of the total. The output of the press and literature stood at KRW 15.1 trillion, or 17.5% of the total core copyright industries; the radio and television at KRW 10.3 trillion, or 12.0%; the advertising services at KRW 7.7 trillion, or 9.0%; and the music, theatrical productions and operas at KRW 4.0 trillion, or 4.7%.

The four remaining sectors, namely, photography, motion picture and video, visual and graphic arts, and copyright collecting societies contributed KRW 5.5 trillion, or 6.4% of output from the core copyright industries.

Chart 4.9: Output Share of Core Copyright Industries by Sector



(2) Growth Rate of Real Output

The annual increase of real output of the core copyright industries during 2006-2009 averaged 5.5%. Among the core copyright industries, the copyright collecting societies experienced the strongest growth at an average rate of 12.0% per annum for the period 2006 to 2009, followed by visual and graphic arts (11.2%), software and databases (9.9%), and photography (6.2%) in said order. The press and literature, motion picture and video, and advertising services, however, showed a negative average annual growth during the period.

Table 4.7: Output Growth of Core Copyright Industries by Sector

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
1. Press and literature	-1.2	6.8	-0.1	-5.4	-0.1
2. Music, theatrical productions and operas	5.9	9.6	-0.6	-0.3	3.6
3. Motion picture and video	5.6	-8.2	-9.1	9.9	-0.8
4. Radio and television	15.5	-3.1	3.7	1.3	4.1
5. Photography	6.2	8.1	4.2	6.4	6.2
6. Software and databases	12.3	-1.9	15.9	14.4	9.9
7. Visual and graphic arts	11.1	14.7	7.5	11.4	11.2
8. Advertising services	4.1	8.2	-11.6	-4.0	-1.1
9. Copyright collecting societies	7.1	33.2	-2.9	13.6	12.0
Total	8.3	1.5	6.0	6.2	5.5

4.2.3 Value Added

(1) Nominal Value Added and Component Ratio

In 2009, the core copyright industries generated nominal value added of KRW 37.4 trillion, up 27.6% compared to 2005. Between 2005 and 2009, in particular, the copyright collecting societies recorded the highest growth rate of 75.5%. Next in line were the visual and graphic arts (59.7%), software and databases (42.1%), and photography (36.0%).

In 2009, each sector of the core copyright industries showed the following component ratio: in terms of value added, the software and databases accounted for 52.9% of the entire core copyright industries, followed by press and literature (16.7%), radio and television (10.1%), and advertising services (8.0%).

Chart 4.10: Value Added Share of Core Copyright Industries in 2009

(Nominal values, %)

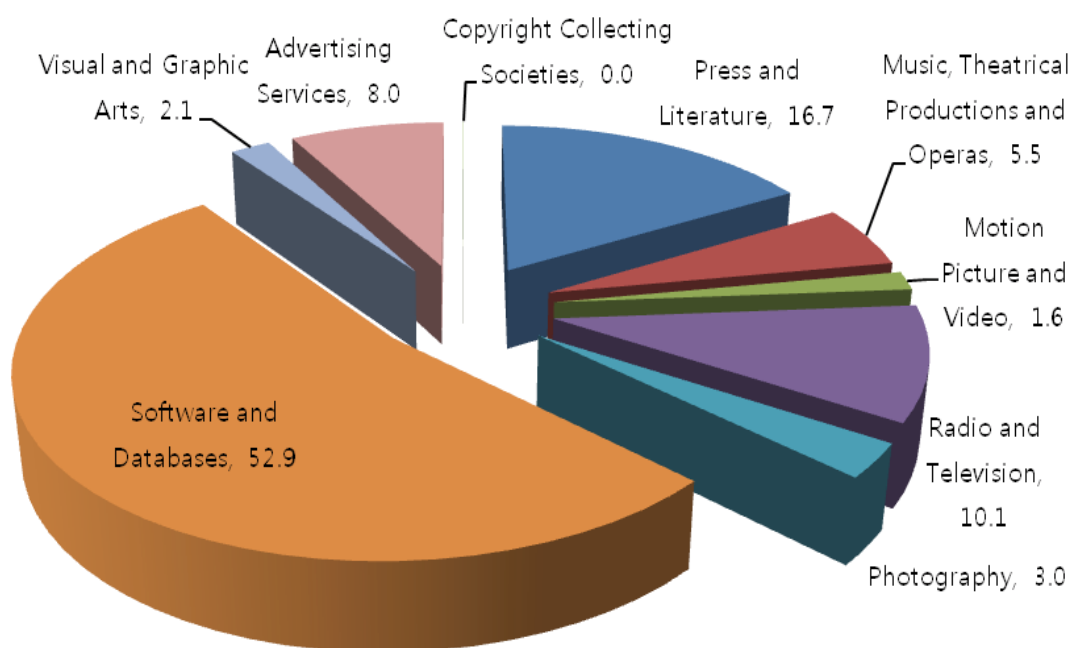


Table 4.8: Value Added of Core Copyright Industries by Sector

(Nominal values, billion won, %)

	2005(A)		2009(B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. Press and literature	5,721.2	19.5	6,243.9	16.7	9.1
2. Music, theatrical productions and operas	1,6593.0	5.7	2,059.6	5.5	24.2
3. Motion picture and video	662.9	2.3	612.4	1.6	-7.6
4. Radio and television	2,983.4	10.2	3,770.4	10.1	26.4
5. Photography	827.2	2.8	1,124.7	3.0	36.0
6. Software and databases	13,945.8	47.5	19,816.7	52.9	42.1
7. Visual and graphic arts	489.0	1.7	781.0	2.1	59.7
8. Advertising services	3,050.1	10.4	3,013.2	8.0	-1.2
9. Copyright collecting societies	6.8	0.02	11.9	0.03	75.5
Total	29,345.5	100.0	37,434.0	100.0	27.6

(2) Growth Rate of Real Value Added

The real value added of the core copyright industries between 2006 and 2009 increased by an average of 4.2% per annum. The highest growth was recorded by the copyright collecting societies showing an increase of 12.6%. Next in line were the visual and graphic arts (9.7%), software and databases (7.5%), and photography (5.2%) industries. On the other hand, press and literature, motion picture and video, and advertising services experienced a decrease in the average annual growth rate during the same period.

Table 4.9: Value Added Growth Rate of Core Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
1. Press and literature	-2.9	8.1	-2.3	-6.0	-0.9
2. Music, theatrical productions and operas	1.1	13.8	-2.5	1.2	3.2
3. Motion picture and video	11.7	-15.3	-2.7	-6.6	-3.7
4. Radio and television	18.3	-5.0	4.9	-0.3	4.1
5. Photography	5.1	-4.1	2.8	18.4	5.2
6. Software and databases	1.7	-1.7	20.9	10.5	7.5
7. Visual and graphic arts	8.1	0.8	4.6	27.0	9.7
8. Advertising services	3.8	8.8	-6.2	-17.1	-3.2
9. Copyright collecting societies	1.8	41.4	-4.4	16.7	12.6
Total	3.1	1.4	8.8	3.4	4.2

4.2.4 Number of Employees**(1) Employment Size and Share**

The core copyright industries employed 670,244 workers in 2009, up 10.1% compared to 2005. In terms of the number and share of the employees of each sector of the core copyright industries, the software and databases was the largest employer with 258,426 workers, accounting for 38.6% of the total workforce of the core copyright industries; followed by press and literature with 159,918 workers (23.9%); music, theatrical production and operas with 92,714 workers (13.8%); advertising services with 40,134 workers (6.0%); and radio and television with 39,836 workers (5.9%).

Chart 4.11: Employment Share of Core Copyright Industries in 2009

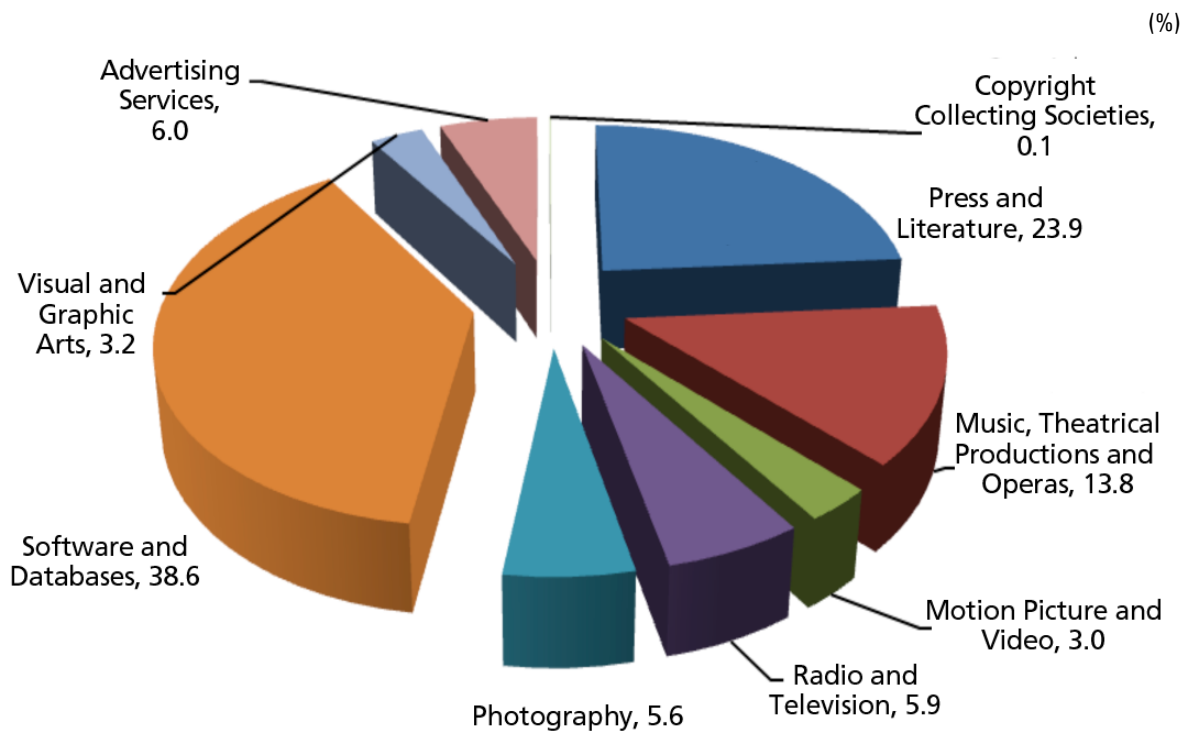


Table 4.10: Number of Employees of Core Copyright Industries

(Persons, %)

	2005(A)		2009(B)		B/A
	Number of Employees	Ratio	Number of Employees	Ratio	% Change
1. Press and literature	157,967	26.0	159,918	23.9	1.2
2. Music, theatrical productions and operas	91,973	15.1	92,714	13.8	0.8
3. Motion picture and video	23,669	3.9	19,884	3.0	-16.0
4. Radio and television	38,366	6.3	39,836	5.9	3.8
5. Photography	33,891	5.6	37,320	5.6	10.1
6. Software and databases	209,912	34.5	258,426	38.6	23.1
7. Visual and graphic arts	18,061	3.0	21,626	3.2	19.7
8. Advertising services	34,589	5.7	40,134	6.0	16.0
9. Copyright collecting societies	207	0.03	386	0.06	86.5
Total	608,635	100.0	670,244	100.0	10.1

(2) Growth Rate of Employment

The number of employees of the core copyright industries showed an average increase of 2.4% per annum between 2006 and 2009. The copyright collecting societies industry achieved the strongest growth of 16.9% per annum, followed by the industries of software and databases (5.3%), visual and graphic arts (4.6%), and advertising services (3.8%). The motion picture and video industry recorded a decrease in the average annual growth rate during the same period.

Table 4.11: Employment Growth Rate of Core Copyright Industries

(%)

	2006	2007	2008	2009	Average 2006-2009
1. Press and literature	0.5	4.2	-4.3	1.1	0.3
2. Music, theatrical productions and operas	0.3	11.0	-8.1	-1.5	0.2
3. Motion picture and video	-1.9	-6.3	-9.0	0.5	-4.3
4. Radio and television	-0.8	1.2	5.5	-2.0	0.9
5. Photography	1.7	2.1	3.5	2.4	2.4
6. Software and databases	12.3	5.0	-1.8	6.3	5.3
7. Visual and graphic arts	4.6	3.6	6.4	3.9	4.6
8. Advertising services	2.2	7.1	9.9	-3.5	3.8
9. Copyright collecting societies	19.3	17.8	25.1	6.0	16.9
Total	4.6	5.0	-2.0	2.3	2.4

4.3 Interdependent Copyright Industries

The interdependent copyright industries are ‘industries that are engaged in the production, manufacture and sale of equipment and whose function is wholly or primarily to facilitate the creation and production or use of works and other protected subject matter’ (WIPO Guide p.33). These industries break down into the core interdependent copyright industries and partial interdependent copyright industries, according to their dependency on the core copyright industries. The core interdependent copyright industries include the manufacture and wholesale and retail industries of the following three sectors:

- TV sets, radios, VCRs, CD players, DVD players, cassette players, game equipment and other similar equipment

- Computers and equipment

- Musical instruments.

The partial interdependent copyright industries include the manufacture, wholesale and retail industries of the following four sectors:

- Photographic and cinematographic instruments

- Photocopiers

- Blank recording material

- Paper.

4.3.1 Overview

The interdependent copyright industries contributed to the Republic of Korea’s economy between 2005 and 2009 as follows:

The nominal output of the interdependent copyright industries was KRW 120.6 trillion in 2009, up 34.4% from KRW 89.7 trillion in 2005, while their real output increased 35.9% over the period 2005 through 2009 (an average annual increase of 8.0%).

The nominal value added of the interdependent copyright industries was KRW 50.6 trillion in 2009, up 49.5% from KRW 33.9 trillion in 2005, while their real output increased 50.7% over the period 2005 through 2009 (an average annual increase of 10.8%).

The number of persons employed by the interdependent copyright industries was 373,564 persons in 2009, down 8.4% from 407,791 in 2005 (an average annual increase of 2.2%).

Table 4.12: Summary of Interdependent Copyright Industries

(Billion; persons; %)

		2005	2006	2007	2008	2009	2009/2005
Output	Nominal (change)	89,716 (-)	92,578 (3.2)	97,987 (5.8)	111,695 (14.0)	120,538 (7.9)	- (34.4)
	Real (change)	89,716 (-)	94,729 (5.6)	102,471 (8.2)	115,064 (12.3)	121,955 (6.0)	- (35.9)
Value added	Nominal (change)	33,875 (-)	36,640 (8.2)	41,288 (12.7)	47,074 (14.0)	50,629 (7.6)	- (49.5)
	Real (change)	33,875 (-)	37,355 (10.3)	42,954 (15.0)	48,241 (12.3)	51,065 (5.9)	- (50.7)
Employment	Number of employees (change)	407,791 (-)	400,511 (-1.8)	392,638 (-2.0)	372,358 (-5.2)	373,564 (0.3)	- (-8.4)

The contribution of the interdependent copyright industries to the national economy (nominal value added of interdependent copyright industries / nominal GDP) increased from 3.92% in 2005 to 4.75% in 2009. The contribution of the interdependent copyright industries to employment (number of employees of the interdependent copyright industries / total number of the persons employed) steadily decreased from 1.78% in 2005 to 1.59% in 2009.

The GDP share of the interdependent copyright industries is much higher than its employment share, indicating that the employees in the interdependent copyright industries receive, on average, higher wages than those of other industries.

Chart 4.12: Contribution of Interdependent Copyright Industries to National Economy

(%)



4.3.2 Output

(1) Nominal Output and Component Ratio

The nominal output of the interdependent copyright industries totalled KRW 120.6 trillion in 2009, up 34.4% compared to 2005. With regards to the growth ratio for each sector between 2005 and 2009, the TV sets, radios and electronic game equipment showed the highest increase rate of 39.6%, followed by computers and equipment (34.6%), photocopiers (33.7%) and paper (24.0%) in that order.

Table 4.13: Output of Interdependent Copyright Industries

(Nominal values, billion won, %)

	2005 (A)		2009 (B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. TV sets, radios and electronic game equipment etc.	60,844	67.8	84,958	70.5	39.6
2. Computers and equipment	7,434	8.3	10,008	8.3	34.6
3. Musical instruments	396	0.4	339	0.3	-14.5
4. Photographic and cinematographic instruments	3,878	4.3	3,843	3.2	-0.9
5. Photocopiers	2,026	2.3	2,708	2.2	33.7
6. Blank recording material	1,737	1.9	2,064	1.7	18.8
7. Paper*	13,400	14.9	16,619	13.8	24.0
Total	89,716	100.0	120,538	100.0	34.4

*Includes only items related to copyright use.

The three major sectors of interdependent copyright industries in terms of output in 2009 were as follows:

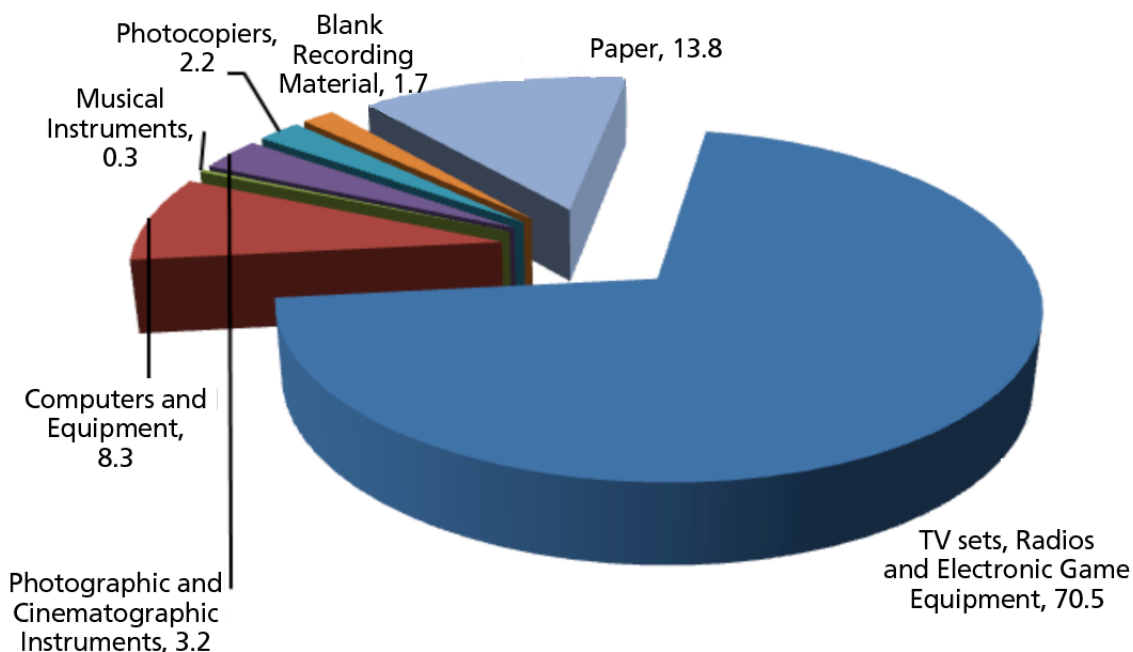
1. TV sets, radios, and electronic game equipment etc.
2. Paper
3. Computers and equipment.

The output of the three sectors above totalled KRW 111.6 trillion, or 92.6% of the interdependent copyright industries. TV sets, radios, electronic game equipment etc. recorded the largest output among this industry, accounting for 70.5% of the entire interdependent copyright industries. Paper produced KRW 16.6 trillion, taking up 13.8%, and computers and equipment produced KRW 10.0 trillion, or 8.3% of the entire interdependent copyright industries.

The remaining four sectors, namely, the musical instruments, photographic and cinematographic instruments, photocopiers and recording material generated a total of KRW 9.0 trillion, accounting for 7.4% of the interdependent copyright industries.

Chart 4.13: Output Share of Interdependent Copyright Industries in 2009

(%)



(2) Growth Rate of Real Output

The average annual increase of real output of the interdependent copyright industries between 2006 and 2009 was 8.0%. Among the interdependent copyright industries, the photocopiers showed the highest growth rate of 18.2% on average between 2006 and 2009, followed by the photographic and cinematographic instruments (12.2%), TV sets, radios, electronic game equipment, etc. (8.9%), and computers and equipment (6.8%). Musical instruments recorded a negative growth rate (-7.0%) per annum during the period 2006-2009.

Table 4.14: Output Growth Rate of Interdependent Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-009
1. TV sets, radios, electronic game equipment etc.	-0.3	6.9	21.3	8.9	8.9
2. Computers and equipment	35.0	-0.5	-6.1	3.3	6.8
3. Musical instruments	-20.3	5.1	0.9	-11.4	-7.0
4. Photographic and cinematographic instruments	45.1	33.9	-19.3	1.1	12.2
5. Photocopiers	41.6	23.3	-6.7	19.8	18.2
6. Blank recording material	2.5	-0.2	6.7	-0.4	2.1
7. Paper*	0.4	7.6	6.5	-7.3	1.6
Total	5.6	8.2	12.3	6.0	8.0

*Includes only items related to copyright use.

4.3.3 Value Added

(1) Nominal Value Added and Component Ratio

In 2009, the interdependent copyright industries generated nominal value added of KRW 50.6 trillion, up 49.5% compared to 2005. The highest growth rate within this industry between 2005 and 2009 was found in TV sets, radios, electronic game equipment etc., recording an average growth of 61.2% per annum. The sectors lagging behind were the computers and equipment (49.0%), photocopiers (20.5%), and paper (17.7%).

Table 4.15: Value Added of Interdependent Copyright Industries

(Billion won, %)

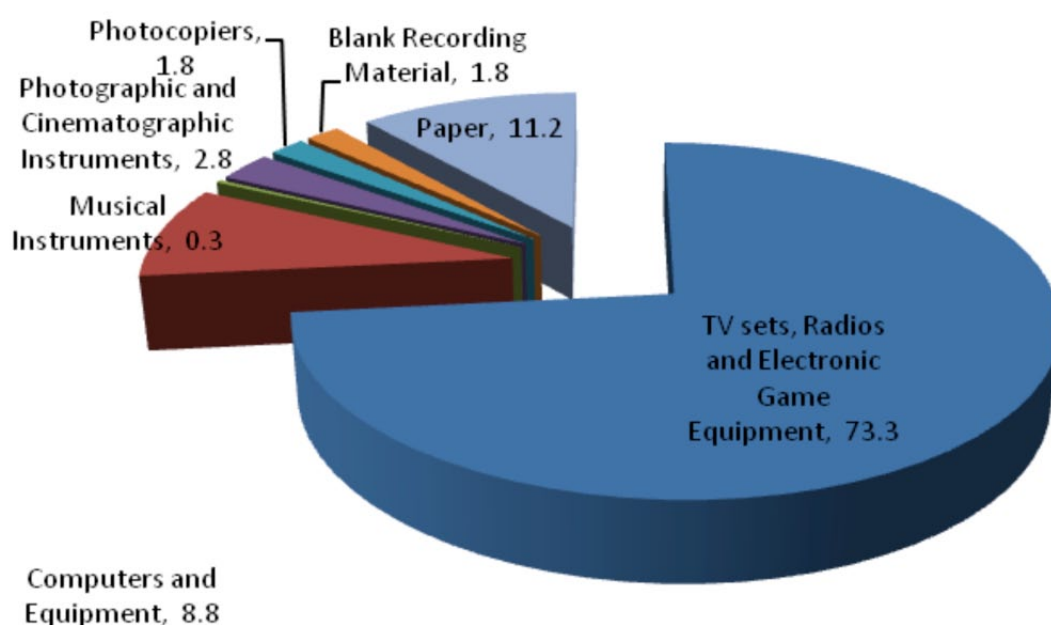
	2005(A)		2009(B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. TV sets, radios, electronic game equipment etc.	23,020.7	68.0	37,120.6	73.3	61.2
2. Computers and equipment	2,997.2	8.8	4,435.7	8.8	49.0
3. Musical instruments	180.7	0.5	149.6	0.3	-17.2
4. Photographic and cinematographic instruments	1,284.5	3.8	1,419.5	2.8	10.5
5. Photocopiers	769.5	2.3	927.5	1.8	20.5
6. Blank recording material	813.4	2.4	890.7	1.8	9.5
7. Paper*	4,829.1	14.3	5,685.3	11.2	17.7
Total	33,875.1	100.0	50,629.0	100.0	49.5

*Includes only items related to copyright use.

In 2009, each sector of the interdependent copyright industries showed the following component ratio in terms of value added: TV sets, radios, electronic game equipment etc. took up the highest share of 73.3% in the entire industry, followed by paper (11.2%), and computers and equipment (8.8%).

Chart 4.14: Value Added Share of Interdependent Copyright Industries in 2009

(%)



(2) Growth Rate of Real Value Added

The real value added of the interdependent copyright industries between 2006 and 2009 increased by an average of 10.8% per annum. The highest growth was found in photocopiers with 14.9%. Next in line were TV sets, radios, and electronic game equipment etc. (12.9%), and computers and equipment (9.6%). On the other hand, musical instruments recorded a negative average annual rate (-5.4%).

Table 4.16: Value Added Growth Rate of Interdependent Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
1. TV sets, radios, electronic game equipment etc.	6.8	16.4	18.6	10.3	12.9
2. Computers and equipment	37.0	5.6	-7.2	7.3	9.6
3. Musical instruments	-27.2	4.0	5.1	-8.8	-7.7
4. Photographic and cinematographic instruments	36.1	49.5	-20.9	8.2	14.9
5. Photocopiers	36.9	41.1	-16.8	4.1	13.7
6. Blank recording material	-1.5	-4.6	4.7	1.5	0.0
7. Paper*	2.6	1.6	20.7	-19.5	0.3
Total	10.3	15.1	12.3	5.9	10.8

*Includes only items related to copyright use.

4.3.4 Number of Employees

(1) Employment Size and Ratio

The interdependent copyright industries employed a total of 373,564 workers in 2009, down 8.4% compared to 2005. In terms of the number and ratio of the employees of each sector of the interdependent copyright industries, TV sets, radios, electronic game equipment etc. employed 177,931 workers, accounting for 47.6%

of the total workforce of the industry, followed by computers and equipment with 59,984 workers (16.1%), paper with 51,248 workers (13.7%), and recording material with 44,123 workers (11.8%).

Table 4.17: Number of Employees of Interdependent Copyright Industries

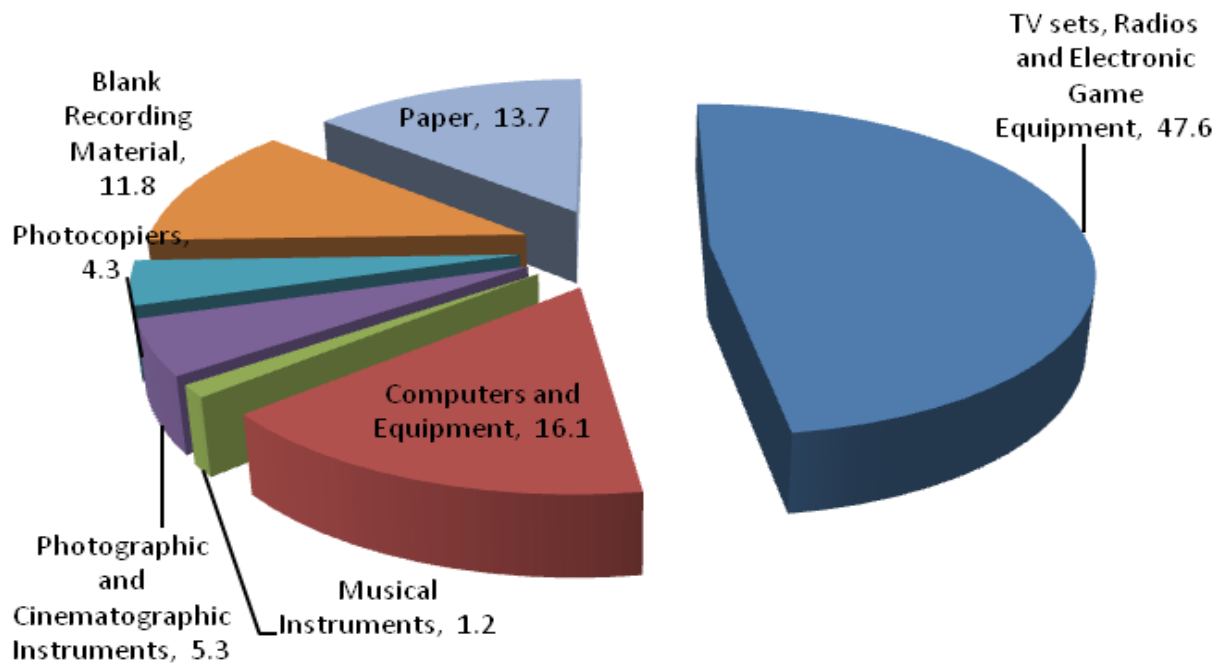
(Persons; %)

	2005 (A)		2009 (B)		B/A
	Number of Employees	Ratio	Number of Employees	Ratio	% Change
1. TV sets, radios, electronic game equipment etc.	180,672	44.3	177,931	47.6	-1.5
2. Computers and equipment	86,898	21.3	59,984	16.1	-31.0
3. Musical instruments	5,316	1.3	4,526	1.2	-14.9
4. Photographic and cinematographic instruments	20,729	5.1	19,802	5.3	-4.5
5. Photocopiers	14,785	3.6	15,950	4.3	7.9
6. Blank recording material	46,066	11.3	44,123	11.8	-4.2
7. Paper*	53,505	13.1	51,248	13.7	-4.2
Total	407,971	100.0	373,564	100.0	-8.4

*Includes only items related to copyright use.

Chart 4.15: Value Added Share of Interdependent Copyright Industries in 2009

(%)



(2) Growth Rate of Employment

The number of employees of the interdependent copyright industries showed an average annual decrease of 2.2% between 2006 and 2009. In the interdependent copyright industries, the number of employees of computers and equipment marked the largest decrease of 8.9%, followed by musical instruments (-3.9%). The three sectors – photographic and cinematographic instruments, blank recording material, and paper – showed the same decrease rate of -1.1% per annum. On the other hand, photocopiers showed a 1.9% growth rate.

Table 4.18: Employment Growth Rate of Interdependent Copyright Industries

(%)

	2006	2007	2008	2009	Average 2006-2009
1.TV sets, radios, electronic game equipment etc.	5.7	-4.9	-3.2	1.3	-0.4
2.Computers and equipment	-19.6	0.5	-14.3	-0.4	-8.9
3. Musical instruments	-7.6	1.0	-6.5	-2.3	-3.9
4.Photographic and cinematographic instruments	3.0	-1.7	-7.1	1.5	-1.1
5. Photocopiers	-1.9	9.2	-4.9	5.9	1.9
6. Blank recording material	1.6	-0.7	-3.8	-1.2	-1.1
7. Paper*	-2.5	0.6	0.0	-2.4	-1.1
Total	-1.8	-2.0	-5.2	0.3	-2.2

*Includes only items related to copyright use.

4.4 Partial Copyright Industries

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' (WIPO Guide p.33). The partial copyright industries comprise the following ten industries:

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

4.4.1 Overview

The partial copyright industries of the Republic of Korea contributed to the national economy between 2005 and 2009 as follows:

In 2009, the partial copyright industries generated an output of KRW 14.8 trillion in nominal terms, up 55.1% from KRW 9.5 trillion in 2005, while its output in real terms increased 30.0% over the period 2005 through 2009 (an average annual increase of 6.8%).

Value added in the partial copyright industries in nominal terms increased to KRW 7.0 trillion in 2009, up 46.6% from KRW 4.8 trillion in 2005, while its value added in real terms increased 21.4% during the same period (an average annual increase of 5.0%).

The workforce employed by the partial copyright industries stood at 158,453 persons in 2009, up 18.4% from 133,863 persons in 2005 (an average annual increase of 4.3%).

Table 4.19: Summary of Partial Copyright Industries

(Billion won, persons, %)

		2005	2006	2007	2008	2009	2009/2005
Output	Nominal (change)	9,524.6 (-)	10,905.0 (14.5)	11,203.8 (2.7)	13,270.8 (18.4)	14,775.1 (11.3)	- (55.1)
	Real (change)	9,524.6 (-)	10,700.6 (12.3)	10,705.2 (0.0)	11,571.8 (8.1)	12,377.8 (7.0)	- (30.0)
Value added	Nominal (change)	4,765.8 (-)	5,278.3 (10.8)	5,356.3 (1.5)	6,351.7 (18.6)	6,987.5 (10.0)	- (46.6)
	Real (change)	4,765.8 (-)	5,155.3 (8.2)	5,091.0 (-1.2)	5,466.5 (7.4)	5,784.8 (5.8)	- (21.4)
Employment	Number of employees (change)	133,863 (-)	141,521 (5.7)	145,688 (2.9)	155,072 (6.4)	158,453 (2.2)	- (18.4)

The contribution of the partial copyright industries to the national economy (nominal value added of the partial copyright industries/nominal GDP) increased from 0.55% in 2005 to 0.66% in 2009. The contribution of the partial copyright industries to employment (number of employees of the partial copyright industries/total number of the persons employed) steadily increased from 0.59% in 2005 to 0.67% in 2009.

The employment share of the partial copyright industries was slightly higher than its GDP share, but they became basically alike in 2009.

Chart 4.16: Economic Contribution of Partial Copyright Industries

(%)



4.4.2 Output

(1) Nominal Output and Component Ratio

The nominal output of the partial copyright industries was KRW 9.5 trillion in 2009, up 32.5% compared to 2005. With regards to the growth ratio for each sector between 2005 and 2009, architecture, engineering and surveying showed the highest increase rate of 95.3%, followed by museums (80.6%), interior design (64.0%), household goods, china and glass (42.3%).

Table 4.20: Output of Partial Copyright Industries

(Billion won,%)

	2005 (A)		2009 (B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. Apparel, textiles and footwear	3,058.4	32.1	4,052.4	27.4	32.5
2. Jewellery and coins	326.0	3.4	455.2	3.1	39.6
3. Other crafts	33.0	0.3	35.9	0.2	8.9
4. Furniture	775.4	8.1	1,050.3	7.1	35.5
5. Household goods, china and glass	1,696.1	17.8	2,412.8	16.3	42.3
6. Wall coverings and carpets	221.7	2.3	264.2	1.8	19.2
7. Toys and games	102.0	1.1	113.8	0.8	11.6
8. Architecture, engineering and surveying	3,021.9	31.7	5,901.7	39.9	95.3
9. Interior design	212.7	2.2	348.7	2.4	64.0
10. Museums	77.6	0.8	140.2	0.9	80.6
Total	9,524.6	100.0	14,775.1	100.0	55.1

The four major sectors of partial copyright industries in terms of output in 2009 were:

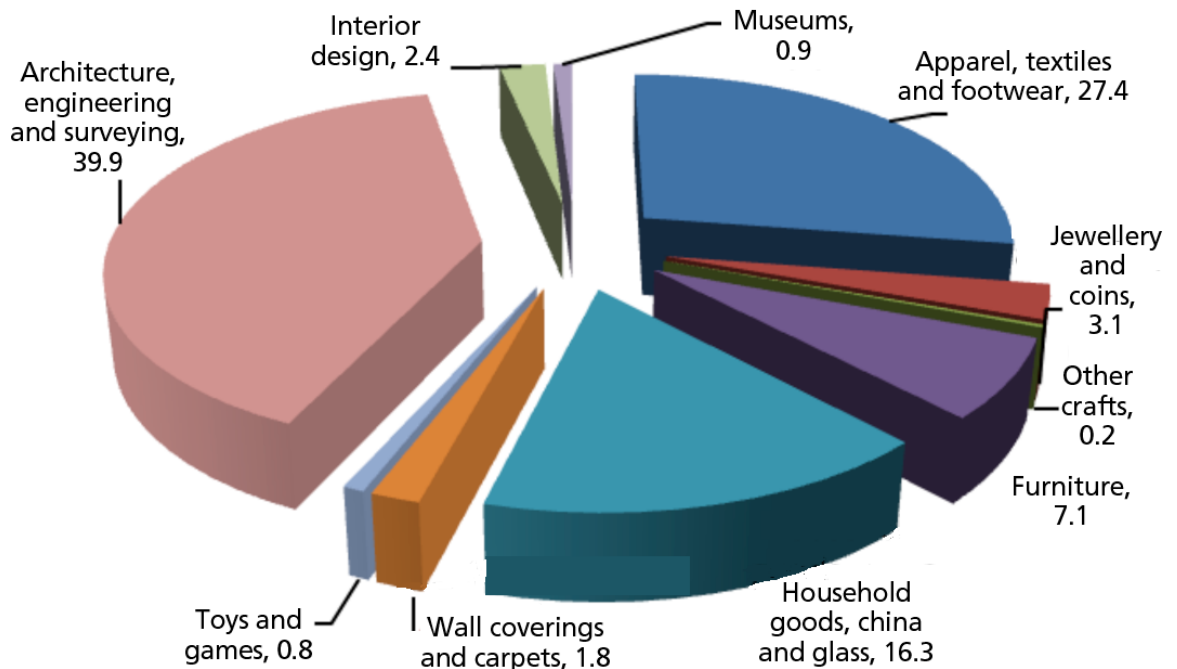
1. Architecture, engineering and surveying
2. Apparel, textiles and footwear
3. Household goods, china and glass
4. Furniture.

The output generated by these industries above totalled KRW 13.4 trillion, accounting for 90.8% in the entire partial copyright industries category. The biggest sector among them was architecture, engineering and surveying, which yielded KRW 5.9 trillion (39.9%), followed by apparel, textiles and footwear with KRW 4.1 trillion (27.4%), household goods, china and glass with KRW 2.4 trillion (16.3%), and furniture with KRW 1.1 trillion (7.1%).

The other six sectors – jewellery and coins, other crafts, wall coverings and carpets, toys and games, interior design and museums – stood for the remaining total output of KRW 1.4 trillion (9.2%) in partial copyright industries.

Chart 4.17: Output Share of Partial Copyright Industries

(Nominal values, %)



(2) Growth Rate of Real Output

The annual increase of real output of the partial copyright industries for the period 2006 to 2009 averaged 6.8%. During this period, among the partial copyright industries, museums recorded the highest growth rate of 11.0%, followed by interior design (9.1%), architecture, engineering and surveying (8.6%), apparel, textiles and footwear (8.0%), and jewellery and coins (6.2%).

Table 4.21: Output Growth Rate of Partial Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	average 2006-2009
1. Apparel, textiles and footwear	16.6	-2.6	5.2	6.5	8.0
2. Jewellery and coins	6.2	-12.4	7.0	18.0	6.2
3. Other crafts	9.6	9.4	-6.2	-15.1	4.1
4. Furniture	28.4	-7.3	2.3	3.0	-1.1
5. Household goods, china and glass	8.2	-1.1	2.7	14.4	5.8
6. Wall coverings and carpets	-4.8	6.8	-3.3	8.0	5.9
7. Toys and games	2.8	-18.5	2.7	17.9	1.5
8. Architecture, engineering and surveying	8.9	7.0	14.8	4.1	8.6
9. Interior design	1.9	0.7	32.1	4.5	9.1
10. Museums	24.1	2.9	9.5	8.6	11.0
Total	12.3	0.0	8.1	7.0	6.8

4.4.3 Value Added

(1) Nominal Value Added and Component Ratio

In 2009, value added by the partial copyright industries totalled KRW 7.0 trillion in nominal terms, up 46.6% compared to 2005. During the period 2005-2009, museums showed the highest growth rate of 85.0%,

followed by architecture, engineering and surveying (61.7%), interior design (53.4%), household goods, china and glass (43.1%), and jewellery and coins (37.2%).

Table 4.22: Value Added of Partial Copyright Industries

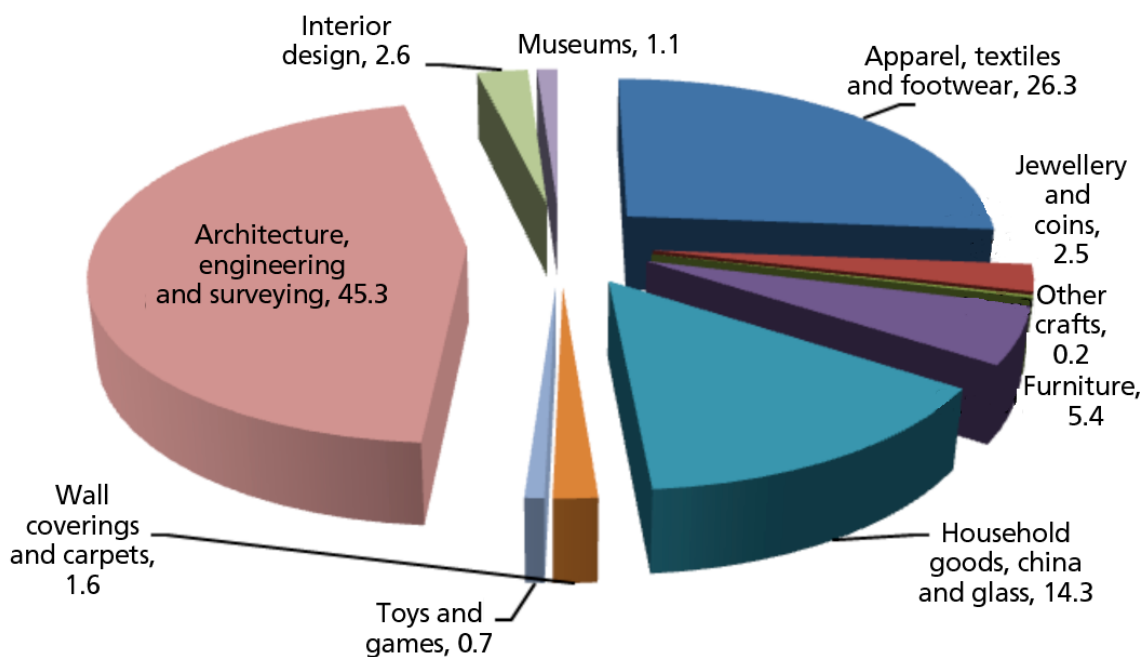
(Nominal values, billion Won, %)

	2005 (A)		2009 (B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. Apparel, textiles and footwear	1,390.4	29.2	1,836.2	26.3	32.1
2. Jewellery and coins	129.4	2.7	176.7	2.5	37.2
3. Other crafts	13.4	0.3	14.9	0.2	15.4
4. Furniture	283.9	6.0	378.0	5.4	33.1
5. Household goods, china and glass	699.8	14.7	1,001.9	14.3	43.1
6. Wall coverings and carpets	90.7	1.9	111.9	1.6	23.1
7. Toys and games	43.5	0.9	49.1	0.7	14.0
8. Architecture, engineering and surveying	1,957.3	41.1	3,164.5	45.3	61.7
9. Interior design	117.5	2.5	180.8	2.6	53.4
10. Museums	39.9	0.8	73.6	1.1	85.0
Total	4,765.8	100.0	6,987.5	100.0	46.6

The component ratio of value added of the partial copyright industries in 2009 is set out below. In the partial copyright industries, the sector that outperformed other sectors was architecture, engineering and surveying, which took up 45.3%. It was followed by the industries of apparel, textiles and footwear (26.3%), household goods, china and glass (14.3%), and furniture (5.4%).

Chart 4.18: Value Added Share of Partial Copyright Industries

(Nominal values, %)



(2) Growth Rate of Real Value Added

Between 2006 and 2009, the value added of the partial copyright industries in real terms increased on average by 5.0% per annum. That of museums increased the most at a rate of 11.5%, followed by interior design (7.4%), apparel, textiles and footwear (6.2%), household goods, china and glass (6.0%), and furniture (5.3%). In contrast, the other crafts experienced a decline in the average annual value added.

Table 4.23: Growth Rate of Value Added of Partial Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
1. Apparel, textiles and footwear	12.6	0.8	5.5	6.1	6.2
2. Jewellery and coins	2.8	-3.0	-3.0	20.0	3.8
3. Other crafts	9.0	19.8	-7.4	-19.2	-0.6
4. Furniture	27.4	-7.8	3.4	1.5	5.3
5. Household goods, china and glass	4.8	5.3	-0.9	15.6	6.0
6. Wall coverings and carpets	-8.7	8.5	-7.5	20.6	2.5
7. Toys and games	2.3	-12.0	-0.9	15.2	0.7
8. Architecture, engineering and surveying	5.0	-3.6	13.3	0.5	3.6
9. Interior design	-0.6	-15.3	28.0	23.3	7.4
10. Museums	17.9	9.3	7.8	11.5	11.5
Total	8.2	-1.2	7.4	5.8	5.0

4.4.4 Number of Employees

(1) Employment Size and Ratio

In 2009, the partial copyright industries employed a total of 158,453 workers, up 18.4% from 2005. The largest employers in this industry were the architecture, engineering and surveying industries, employing 56,245 workers, or 35.5% of the total industries; followed by apparel, textiles and footwear with 48,385 workers (30.5%); household goods, china and glass with 25,818 workers (16.3%); and furniture with 7,253 workers (4.6%).

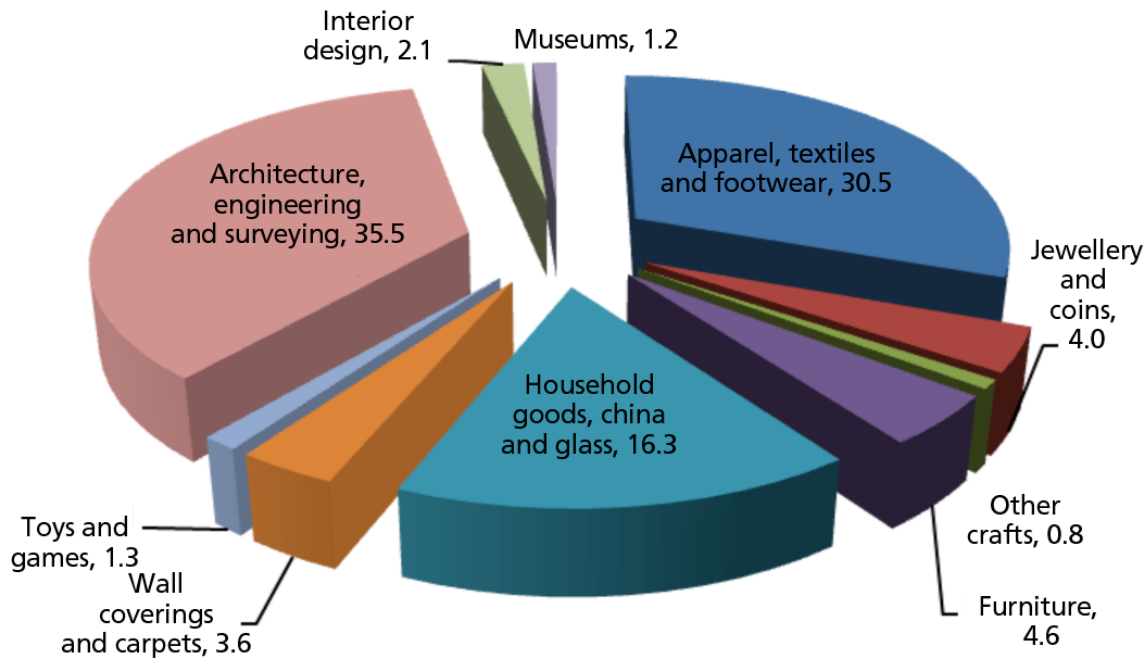
Table 4.24: Number of Employees of Partial Copyright Industries

(Persons; %)

	2005 (A)		2009 (B)		B/A
	Number of Employees	Ratio	Number of Employees	Ratio	% Change
1. Apparel, textiles and footwear	45,963	34.3	48,385	30.5	5.3
2. Jewellery and coins	6,821	5.1	6,329	4.0	-7.2
3. Other crafts	1,416	1.1	1,320	0.8	-6.8
4. Furniture	6,791	5.1	7,253	4.6	6.8
5. Household goods, china and glass	22,425	16.8	25,818	16.3	15.1
6. Wall coverings and carpets	6,268	4.7	5,672	3.6	-9.5
7. Toys and games	2,257	1.7	2,089	1.3	-7.4
8. Architecture, engineering and surveying	38,571	28.8	56,245	35.5	45.8
9. Interior design	2,040	1.5	3,397	2.1	66.5
10. Museums	1,311	1.0	1,944	1.2	48.3
Total	133,863	100.0	158,453	100.0	18.4

Chart 4.19: Employment Ratio of Partial Copyright Industries in 2009

(%)



(2) Growth Rate of Employment

Overall employment in the partial copyright industries expanded at an average rate of 4.3% per annum during the period 2006-2009. In the partial copyright industries, interior design showed the highest increase at 13.6%, followed by museums (10.4%), architecture, engineering and surveying (9.9%), and household goods, china and glass (3.6%). However, the annual average growth rate of employment in jewellery and coins, other crafts, wall coverings and carpets, and toys and games marked a decline during the same period.

Table 4.25: Employment Growth Rate of Partial Copyright Industries

(%)

	2006	2007	2008	2009	Average 2006-2009
1. Apparel, textiles and footwear	5.2	-0.3	-1.8	2.2	1.3
2. Jewellery and coins	-2.2	-2.2	-2.8	-0.2	-1.9
3. Other crafts	5.7	-3.1	-9.6	0.7	-1.7
4. Furniture	8.2	1.2	-0.8	-1.7	1.7
5. Household goods, china and glass	4.6	2.2	3.0	4.4	3.6
6. Wall coverings and carpets	-1.9	-0.5	-8.1	0.9	-2.5
7. Toys and games	-4.5	-4.8	-1.9	3.8	-1.9
8. Architecture, engineering and surveying	9.7	8.9	19.8	1.9	9.9
9. Interior design	5.5	5.2	49.4	0.4	13.6
10. Museums	6.3	11.2	13.3	10.7	10.4
Total	5.7	2.9	6.4	2.2	4.3

4.5 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). The non-dedicated support industries comprise the following:

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

4.5.1 Overview

The non-dedicated support industries in the Republic of Korea showed the following trends over the period 2005 through 2009:

The nominal output of the non-dedicated support industries amounted to KRW 26.0 trillion in 2009, up 43.4% from KRW 18.1 trillion in 2005, while their real output increased by 28.9% between 2005 and 2009 (an average annual increase of 6.6%).

The nominal value added in the non-dedicated support industries was KRW 10.3 trillion in 2009, up 28.0% from KRW 8.1 trillion in 2005, while their real value added increased by 15.5% between 2005 and 2009 (an average annual increase of 3.7%).

The number of persons employed in the non-dedicated support industries added up to 264,274 persons in 2009, up 23.2% from 214,554 persons in 2005 (an average annual increase of 5.3%).

Table 4.26: Summary of the performance of Non-Dedicated Support Industries

(Billion won, persons; %)

		2005	2006	2007	2008	2009	2009/2005
Output	Nominal (change)	18,107.9 (-)	18,734.1 (3.5)	20,987.5 (12.0)	26,081.9 (24.3)	25,967.1 (-0.4)	- (43.4)
	Real (change)	18,107.9 (-)	18,490.4 (2.1)	20,377.0 (10.2)	23,913.5 (17.4)	23,347.1 (-2.4)	- (28.9)
Value added	Nominal (change)	8,064.6 (-)	8,092.1 (0.3)	9,138.2 (12.9)	10,651.1 (16.6)	10,319.1 (-3.1)	- (28.0)
	Real (change)	8,064.6 (-)	7,998.0 (-0.8)	8,876.3 (11.0)	9,829.9 (10.7)	9,314.1 (-5.2)	- (15.5)
Employment	Number of employees (change)	214,554 (-)	223,991 (4.4)	232,771 (3.9)	256,798 (10.3)	264,274 (2.9)	- (23.2)

The contribution of the non-dedicated support industries to the nation's economy (nominal value added in the non-dedicated support industries/nominal GDP) increased from 0.93% in 2005 to 0.97% in 2009. The contribution to employment (number of employees in the non-dedicated support industries/total number of persons employed) steadily increased to 1.12% in 2009 from 0.94% in 2005.

The employment share in the non-dedicated support industries is higher than its GDP share, indicating that the employees in the non-dedicated support industries receive, on average, lower wages than those of other industries.

Chart 4.20: Economic Contribution of Non-Dedicated Support Industries



4.5.2 Output

(1) Nominal Output and Component Ratio

The non-dedicated support industries produced in nominal terms an estimated output of KRW 26.0 trillion in 2009, up 43.4% compared to 2005. The fastest growing sector in this group between 2005 and 2009 was general wholesale and retail trade, recording average growth of 50.5% year on year. Next in line were general transportation (44.5%), telephony and the Internet (27.7%).

Table 4.27: Output of Non-Dedicated Support Industries

(Nominal values, billion won, %)

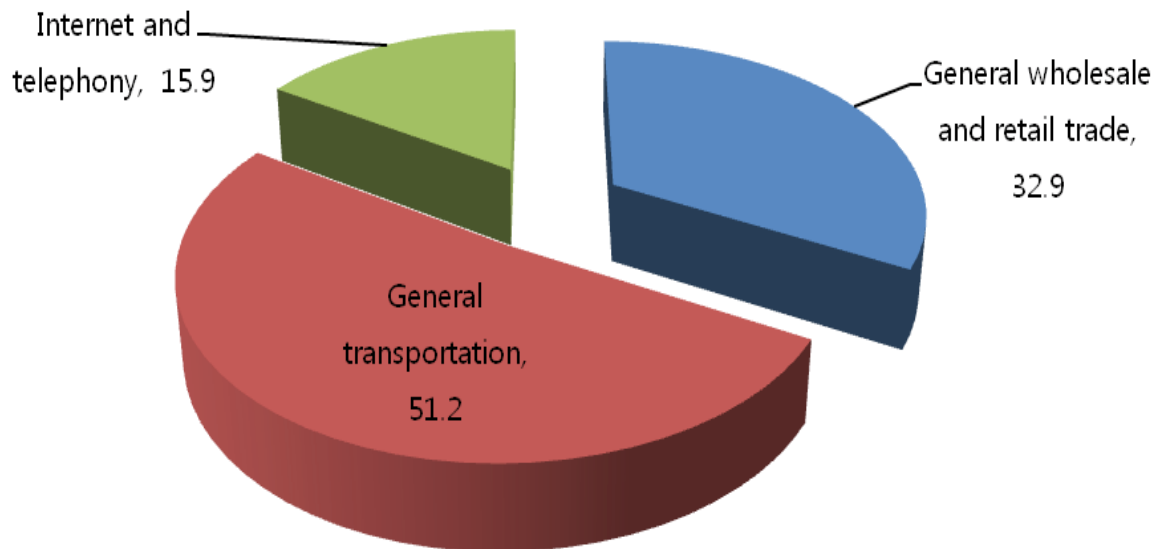
	2005(A)		2009(B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. General wholesale and retail	5,679.3	31.4	8,545.2	32.9	50.5
2. General transportation	9,200.5	50.8	13,298.3	51.2	44.5
3. Telephony and Internet	3,228.2	17.8	4,123.7	15.9	27.7
Total	18,107.9	100.0	25,967.1	100.0	43.4

The three components of non-dedicated support industries demonstrated the following nominal outputs in 2009:

General transportation was the largest sector, producing a nominal output of KRW 13.3 trillion, accounting for 51.2% of the total non-dedicated support industries. The output of general wholesale and retail trade stood at KRW 8.5 trillion, or 32.9% of the total non-dedicated support industries. The telephony and Internet stood at KRW 4.1 trillion, or 15.9% of the total non-dedicated support industries.

Chart 4.21: Output Ratio of Non-Dedicated Support Industries

(Nominal values, %)



(2) Growth Rate of Real Output

The annual increase of real output in the non-dedicated support industries averaged 6.6% between 2006 and 2009. Among the non-dedicated support industries, general wholesale and retail trade showed the highest average growth rate of 7.8% during the same period, followed by telephony and Internet (6.6%), and general transportation (5.8%).

Table 4.28: Output Growth Rate of Non-Dedicated Support Industries

(2005 prices, %)

	2006	2007	2008	2009	average 2006-2009
1. General wholesale and retail	3.0	13.1	6.9	8.4	7.8
2. General transportation	1.1	10.2	25.1	-10.2	5.8
3. Telephony and Internet	3.3	5.0	14.5	3.8	6.6
Total	2.1	10.2	17.4	-2.4	6.6

4.5.3 Value Added

(1) Nominal Value Added and Component Ratio

In 2009, the non-dedicated support industries generated value added of KRW 10.3 trillion in nominal terms, up 28.0% compared to 2005. Between 2005 and 2009, general wholesale and retail trade showed the highest growth rate of 46.1%, followed by general transportation (25.6%) and telephony and Internet (2.7%).

Table 4.29: Value Added of Non-Dedicated Support Industries

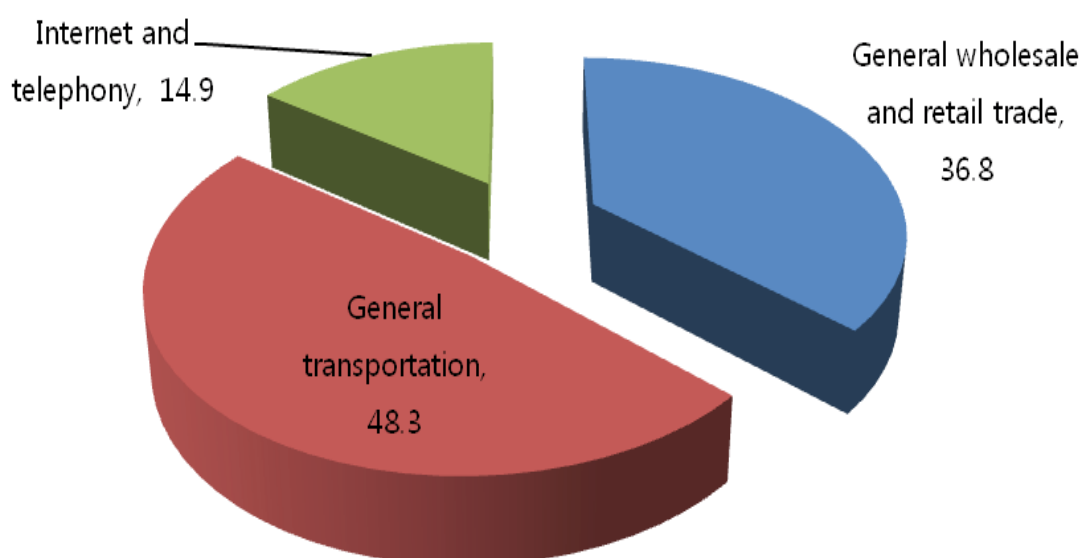
(Nominal values, billion won, %)

	2005 (A)		2009 (B)		B/A
	Amount	Ratio	Amount	Ratio	% Change
1. General wholesale and retail trade	2,596.2	32.2	3,793.7	36.8	46.1
2. General transportation	3,971.7	49.2	4,988.0	48.3	25.6
3. Telephony and Internet	1,496.6	18.6	1,537.4	14.9	2.7
Total	8,064.6	100.00	10,319.1	100.00	28.0

In 2009, the non-dedicated support industries showed the following component ratio in terms of value added: General transportation generated the highest share at 48.3% among the group, followed by general wholesale and retail (36.8%) and telephony and Internet (14.9%).

Chart 4.22: Component Ratio of Value Added of Non-Dedicated Support Industries

(Nominal values, %)

**(2) Growth Rate of Real Value Added**

The value added of the non-dedicated support industries during the period 2006-2009 increased in real terms by an average of 3.7% per annum. The highest growth was achieved in general wholesale and retail trade with 7.0%, followed by general transportation (2.4%) and telephony and Internet (0.9%).

Table 4.30: Growth Rate of Value Added of Non-Dedicated Support Industries

(2005 prices, %)

	2006	2007	2008	2009	average 2006-2009
1. General wholesale and retail	-2.6	19.1	5.8	6.8	7.0
2. General transportation	0.2	7.1	14.7	-10.9	2.4
3. Telephony and Internet	-0.6	7.5	9.5	-11.5	0.9
Total	-0.8	11.0	10.7	-5.2	3.7

4.5.4 Number of Employees

(1) Employment Size and Ratio

In 2009, the number of employees of the non-dedicated support industries totalled 264,274 workers, up 23.2% compared to 2005. In terms of the number and ratio of employees of each sector of the non-dedicated support industries, general transportation was the largest employer with 140,538 workers, accounting for 53.2% of the total workforce of the industries; followed by general wholesale and retail trade with 114,792 workers (43.4%); and telephony and Internet with 8,944 workers (3.4%).

Table 4.31: Number of Employees of Non-Dedicated Support Industries

(Persons, %)

	2005(A)		2009(B)		B/A
	Number of Employees	Ratio	Number of Employees	Ratio	% Change
1. General wholesale and retail	85,607	39.9	114,792	43.4	34.1
2. General transportation	120,950	56.4	140,538	53.2	16.2
3. Telephony and Internet	7,997	3.7	8,944	3.4	11.8
Total	214,554	100.0	264,274	100.0	23.2

(2) Growth Rate of Employment

The number of employees in the non-dedicated support industries showed an average increase of 5.3% per annum between 2006 and 2009. The highest growth rate was achieved in general wholesale and retail trade at 7.6%, followed by general transportation (3.8%) and telephony and Internet (2.8%).

Table 4.32: Employment Growth Rate of Non-Dedicated Support Industries

(%)

	2006	2007	2008	2009	Average 2006-2009
1. General wholesale and retail	9.3	3.1	12.9	5.4	7.6
2. General transportation	1.0	5.1	8.2	1.2	3.8
3. Telephony and Internet	3.5	-4.5	14.1	-0.8	2.8
Total	4.4	3.9	10.3	2.9	5.3

4.6 Foreign Trade

Foreign trade in copyright goods and services was estimated on the basis of exports and imports of the following copyright-related goods and services:

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

The Republic of Korea is a net importing country in copyright-related goods and services. The trade deficit in copyright-related goods and services continued to increase to 6.0 billion US dollars in 2009, up 78.9% from 3.4 billion US dollars in 2005. The trade deficit was generated mainly by the press and literature, and advertising services.

Imports of copyright-related goods and services increased from 5.2 billion US dollars in 2005 to 8.3 billion US dollars in 2009. Imports sharply increased more than 20% in 2007 and 2008 for two consecutive years, but they rose by 0.5% in 2009.

In contrast, exports of copyright-related goods and services fluctuated within a range of between 1.7 billion US dollars and 2.2 billion US dollars for the period 2005-2009, except in 2008 when they recorded 3.2 billion US dollars.

Table 4.33: Trade in Copyright-Related Goods and Services

(Million US dollars, %)

		2005	2006	2007	2008	2009
Exports	Amount	1,862	1,702	1,782	3,192	2,221
	(%Change)	(-)	(-8.6)	(4.7)	(79.1)	(-30.4)
Imports	Amount	5,233	5,526	6,766	8,214	8,253
	(%Change)	(-)	(5.6)	(22.5)	(21.4)	(0.5)
Difference	Amount	-3,371	-3,824	-4,984	-5,022	-6,032

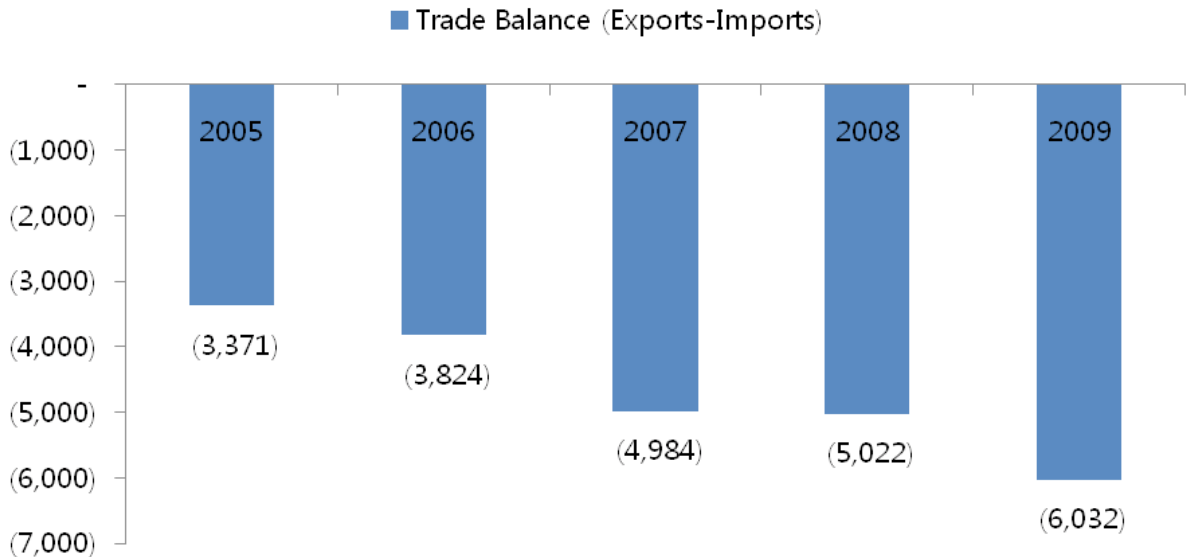
Chart 4.23: Trade in Copyright-Related Goods and Services

(Million US dollars)



Chart 4.24: Trade Balance (Exports – Imports)

(Million US dollars)



4.7 International Comparisons

It is very informative to compare the level of economic contribution of 29 countries, including the United States, Canada and Australia, that have produced statistics on the copyright-based industries since 2004. International comparisons regarding the copyright-based industries are typically made on the basis of the total copyright-based industries and the core copyright industries.

4.7.1 GDP Contribution by Country

In terms of GDP contribution by the total copyright industries, average GDP contribution of the 29 countries was 5.45%. The highest contribution was recorded in the USA with 11.05%, followed by Australia (10.30%), the Republic of Korea (9.89%), Hungary (6.66%), and China (6.37%). On the other hand, Brunei Darussalam (1.58%), Peru (2.67%), and Ukraine (2.85%) recorded low contributions.

With regards to the GDP contribution of the core copyright industries, the average GDP contribution of the 29 countries was 3.03%. Australia topped this category with 7.30%, followed by the USA (6.44%), Panama (5.40%), and the Netherlands (4.00%), which were classified as countries with high GDP contribution by the core copyright industries.

On the other hand, Brunei Darussalam recorded 0.70%, the lowest contribution, followed by Peru (1.23%), Pakistan (1.37%), and Ukraine (1.54%), which can be classified as countries with lower GDP contribution by the core copyright industries. In the Republic of Korea, the GDP contribution by the core copyright industries was estimated at 3.51%, slightly hovering over the average of the 29 countries.

Table 4.34: GDP Contribution of Copyright Industries by Country

(%)

Country	Published	Total CRI*	Core CRI	Country	Published	Total CRI	Core CRI
USA	2009	11.05	6.44	Brunei	2011	1.58	0.70
Australia	2009	10.30	7.30	Peru	2009	2.67	1.23
Republic of Korea	2012	9.89	3.51	Ukraine	2008	2.85	1.54
Hungary	2010	6.66	3.96	Colombia	2008	3.30	1.90
China	2009	6.37	3.06	South Africa	2011	4.11	2.05
Panama	2009	6.35	5.40	Croatia	2007	4.27	2.99

Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

*CRI = Copyright Industries

In terms of the share of core copyright industries in the value added of the total copyright industries for each country, the average of the 29 countries was 54.9%. Panama led the high-ranking group with 85.0%, followed by Finland (76.6%), Canada (74.2%), the Philippines (73.2%), and Australia (70.9%). The middle of the list included the USA (58.3%), Colombia (57.6%), Hungary (59.5%), Singapore (55.9%), and Ukraine (54.0%); whereas at the bottom of the list were the Russian Federation (39.4%), the Republic of Korea (35.5%), Jamaica (35.3%), Bhutan (34.8%), and Mexico (32.5%).

Table 4.35: Share of Core Copyright Industries in the Total Copyright Industries

(Value added, %)

High			Middle			Bottom		
	Published	Share		Published	Share		Published	Share
Panama	2009	85.0	Hungary	2010	59.5	Russian Federation	2007	39.4
Finland	2010	76.6	USA	2009	58.3	Republic of Korea	2011	35.5
Canada	2004	74.2	Colombia	2008	57.6	Jamaica	2007	35.3
Philippines	2006	73.2	Singapore	2007	55.9	Bhutan	2011	34.8
Australia	2009	70.9	Ukraine	2008	54.0	Mexico	2006	32.5

Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

4.7.2 Employment Contribution by Country

In terms of the employment contribution of the total copyright industries, the average of the 29 countries' employment contribution was 5.99%. The Philippines had the highest contribution with 11.10%, followed by Mexico (11.01%), Bhutan (10.09%), the Netherlands (8.80%), and the USA (8.51%). Other countries such as Ukraine (1.90%), Jamaica (3.03%), Panama (3.17%), Brunei Darussalam (3.20%) and Kenya (3.26%) showed lower contributions. The Republic of Korea's employment contribution of the total copyright industries was 6.24%, slightly higher than the average of the 29 countries.

Regarding the contribution of the core copyright industries to national employment, the average of the 29 countries was 3.19%. The Philippines led the high-ranking group with 8.81%, followed by the Netherlands (6.20%), Australia (4.97%), Slovenia (4.60%), the Russian Federation (4.29%), and the USA (4.05%).

In contrast, Pakistan recorded the lowest contribution share of 0.70%. At the bottom of the list were Bhutan (1.03%), Ukraine (1.16%), Kenya (1.20%), and Brunei Darussalam (1.50%). The Republic of Korea's employment contribution of the core copyright industries was 2.85%, lower than the average of the 29 countries.

Table 4.36: Employment Contribution by Country

(%)

Country	Published	Total CRI	Core CRI	Country	Published	Total CRI	Core CRI
Philippines	2006	11.10	8.81	Ukraine	2008	1.90	1.16
Mexico	2006	11.01	3.41	Jamaica	2007	3.13	1.79
Bhutan	2011	10.09	1.03	Panama	2009	3.17	1.52
Netherlands	2009	8.80	6.20	Brunei Darussalam	2011	3.20	1.50
USA	2009	8.51	4.05	Kenya	2009	3.26	1.20
Australia	2009	8.00	4.97	Pakistan	2009	3.71	0.70
Russian Federation	2007	7.30	4.29	Republic of Korea	2012	6.24	2.85

Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

On the other hand, regarding the employment share of the core copyright industries in the total copyright industries, the average of the 29 countries was 53.2%. The Philippines showed the highest share with 79.4%, followed by Finland (79.3%), the Netherlands (70.5%), Croatia (69.2%), and Slovenia (67.6%). The middle-ranking group included the Russian Federation (58.8%), Hungary (58.5%), Canada (58.2%), South Africa (56.6%), and Romania (56.3%). Bhutan (10.2%), Pakistan (18.9%), Colombia (29.3%), Mexico (31.0%) and Kenya (36.8%) were at the bottom of the list. The Republic of Korea (45.7%) was at the lower-middle tier of the list.

Table 4.37: Employment Share of Core Copyright Industries by Country

(%)

High			Middle			Low		
	Published	Share		Published	Share		Published	Share
Philippines	2006	79.4	Russian Federation	2007	58.8	Bhutan	2011	10.2
Finland	2010	79.3	Hungary	2010	58.5	Pakistan	2010	18.9
Netherlands	2009	70.5	Canada	2004	58.2	Colombia	2008	29.3
Croatia	2007	69.2	South Africa	2011	56.6	Mexico	2006	31.0
Slovenia	2010	67.6	Romania	2008	56.3	Kenya	2009	36.8

Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

4.7.3 GDP and Employment Shares by Country

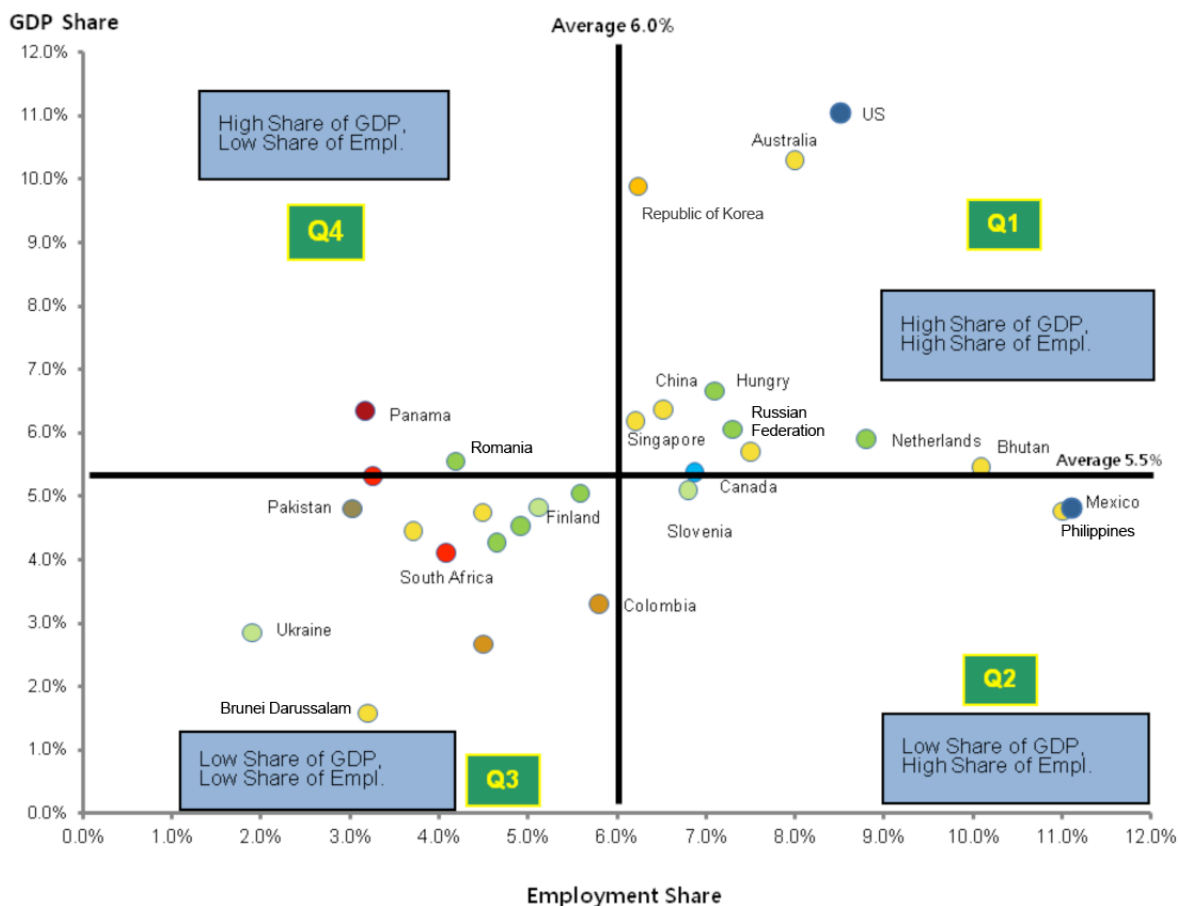
It is noteworthy to compare the distribution of the economic contribution of copyright industries of the 29 countries that have generated relevant statistics since 2004, including the USA, Canada and Australia, by means of quadrant tables based on both mean values and median values of GDP and employment shares respectively.

Total Copyright-Based Industries

The average GDP share of total copyright-based industries is 5.5% and the average employment share is 6.0%. The first quadrant where both GDP and employment shares are high included ten countries, such as the USA, Australia, the Republic of Korea, China, Singapore, Hungary, the Russian Federation, and the Netherlands. The second quadrant where the GDP share is low but the employment share is high included four countries, namely Canada, Slovenia, Mexico and the Philippines. The third quadrant where both GDP and employment shares are low included 13 countries, such as Kenya, Latvia, Finland, South Africa, Ukraine, Pakistan and Brunei Darussalam. And the fourth quadrant where the GDP share is high but the employment share is low included two countries, namely Panama and Romania. In case median values of GDP and employment shares are used instead of mean values, there is no significant change in the distribution of countries in the quadrant table (refer to table 4.38).



Chart 4.25: Country Distribution of Total Copyright-Based Industries



Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

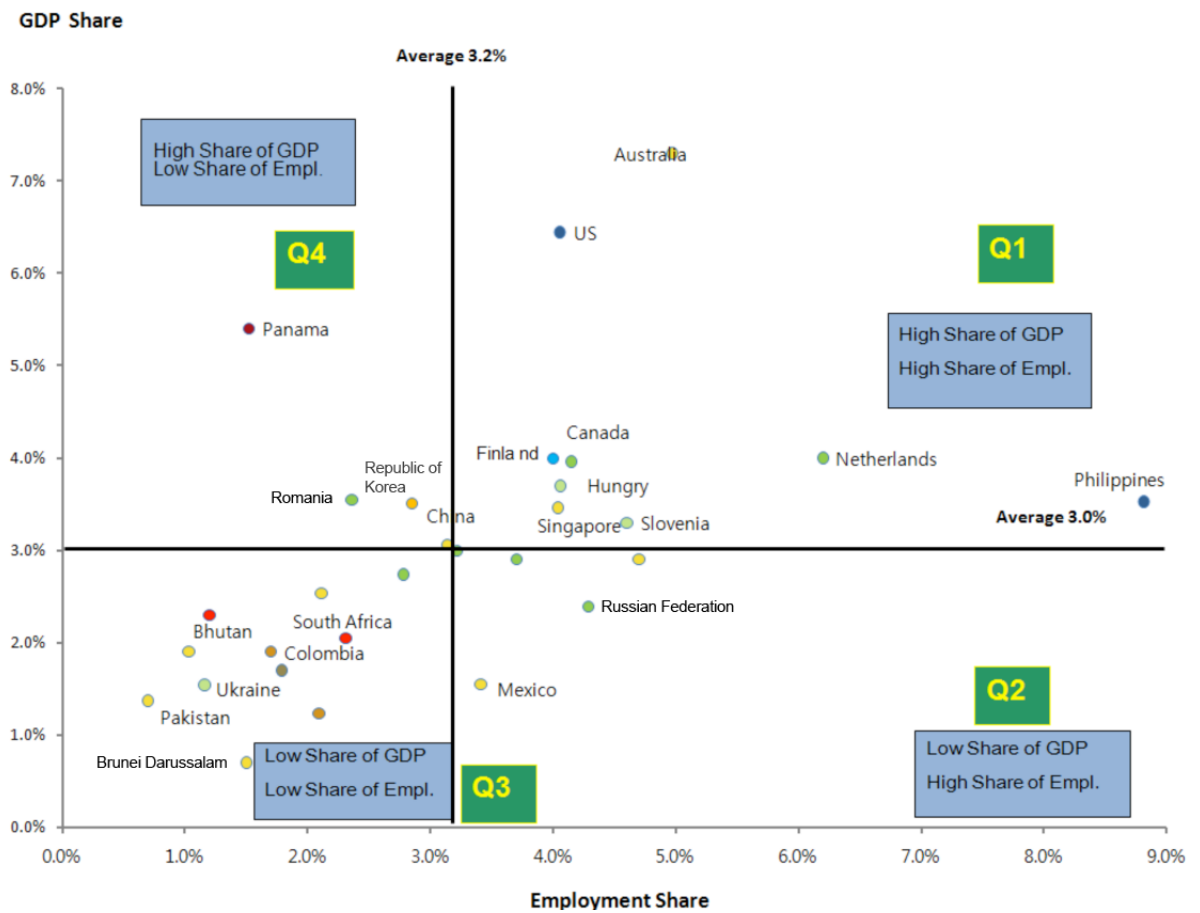
Table 4.38: Country Placement of Total Copyright-Based Industries

	Mean Values (GDP 5.5%, Employment 6.0%)	Median Values (GDP 5.1%, Employment 5.8%)	Changes due to Median Values
Q1	USA, Australia, Republic of Korea, China, Hungary, Russian Federation, Netherlands, Malaysia, Bhutan (10 countries)	USA, Australia, Republic of Korea, China, Hungary, Russian Federation, Netherlands, Malaysia, Bhutan, Canada (11 countries)	Canada(+)
Q2	Canada, Slovenia, Mexico, Philippines (4 countries)	Mexico, Philippines (2 countries)	Slovenia(-), Colombia(-) (GDPMedian)
Q3	Kenya, Latvia, Finland, Jamaica, Lebanon, Bulgaria, Pakistan, Croatia, South Africa, Colombia, Ukraine, Peru, Brunei Darussalam (13 countries)	Latvia, Finland, Jamaica, Lebanon, Bulgaria, Pakistan, Croatia, South Africa, Ukraine, Peru, Brunei Darussalam (11 countries)	Kenya(-), Colombia(-) (Employment Median)
Q4	Panama, Romania (2 countries)	Kenya, Panama, Romania (3 countries)	Kenya(+)

Core Copyright Industries

The average (mean) GDP share of total copyright-based industries is 3.0%, and the average employment share is 3.2%. The first quadrant, where both GDP and employment shares are high, included nine countries such as Australia, the USA, the Netherlands, Canada, Hungary, Finland, the Philippines, Singapore and Slovenia. The second quadrant, where the GDP share is low but the employment share is high, included five countries, namely Croatia, Malaysia, Latvia, the Russian Federation and Mexico. The third quadrant, where both GDP and employment shares are low, included eleven countries such as Bulgaria, Lebanon, Kenya, South Africa, Bhutan, Colombia, Jamaica, Ukraine, Pakistan, Peru and Brunei Darussalam. Finally, the fourth quadrant, where the GDP share is high but the employment share is low, included four countries, namely Panama, Romania, the Republic of Korea and China. Applying median values of GDP and employment shares instead of average values, there is no significant change in the distribution of countries in the quadrant table (refer to table 4.39).

Chart 4.26: Country Distribution of Core Copyright Industries



Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

Table 4.39: Country Placement of Core Copyright Industries

	Mean Values (GDP 3.0%, Employment 3.2%)	Median Values (GDP 2.9%, Employment 3.1%)	Changes due to Median Values
Q1	Australia, USA, Netherlands, Canada, Hungary, Finland, Philippines, Singapore, Slovenia (9 countries)	Australia, USA, Netherlands, Canada, Hungary, Finland, Philippines, Singapore, Slovenia, Croatia (10 countries)	Croatia(+)
Q2	Croatia, Malaysia, Latvia, Russian Federation, Mexico (5 countries)	Latvia, Russian Federation, Mexico (3 countries)	Croatia(-), Malaysia(-) (GDP Median)
Q3	Bulgaria, Lebanon, Kenya, South Africa, Bhutan, Colombia, Jamaica, Ukraine, Pakistan, Brunei Darussalam (11 countries)	Bulgaria, Lebanon, Kenya, South Africa, Bhutan, Colombia, Jamaica, Ukraine, Pakistan, Brunei Darussalam (10 countries)	
Q4	Panama, Romania, the Republic of Korea, China (4 countries)	Panama, Romania, Republic of Korea (3 countries)	China(-) (Employment Median)

4.8 Summary

Regardless of average values (mean or median) and industry boundaries (total copyright industries or core copyright industries), the quadrant analysis reveals that countries are concentrated in the first quadrant (advanced countries in terms of copyright industries) where both GDP and employment shares are high and the third quadrant (countries whose copyright industries are not fully developed) where both GDP and employment shares are low. However there was a big change in the composition of countries in the first quadrant between total copyright industries and core copyright industries analyses. The USA, Australia and the Netherlands, which have significantly high shares of GDP and employment, still belonged to the first quadrant in all cases of the quadrant analyses.

Two significant conclusions can be drawn from such distributions. First, copyright industries across countries tend to evolve from the third quadrant toward the first quadrant over time. Second, legal and economic incentives intended to drive the growth of the copyright industries will considerably contribute to promoting employment in the copyright industries by creating more jobs.

5. INPUT-OUTPUT ANALYSIS

The Bank of Korea has published Korean Input-Output Tables (KIO) since 2006. The Tables have a detailed classification of 403 goods and services. This study used 2009 Input-Output Tables and examined the economic impact of the core copyright industries. The coverage of core copyright industries is defined based on the following 13 detailed sectors from 403 KIO sectors. Table 5.1 shows the definition of core copyright industries expressed in the 403 detailed sectors.

Table 5.1: Definition of Core Copyright Industries

Core Copyright Industries	Korean Input-Output Tables (403 sectors)
Press and literature	KIO 129(Printing) + KIO 130(Reproduction of recorded media) + KIO 384(Newspapers) + KIO 385(Publishing)
Music, theatrical productions, operas	KIO 390(Theatrical producers, bands and entertainers)
Motion picture and video	KIO 388(Motion picture production and distribution) + KIO 389(Motion picture exhibition)
Radio and television	KIO 346(Terrestrial broadcasting) + KIO 347(Broadcasting via cable, satellite)
Software and databases	KIO 366(Computer software development and supply) + KIO 367(Computer-related services)
Advertising services	KIO 363(Advertising services)
Copyright collecting societies	KIO 393(Business and professional organizations)

5.1 Output Multipliers

An output multiplier of an industry represents the size of output directly or indirectly required by the industry or other industries to meet the final demand for one unit of an output of the industry.

The output multiplier of the core copyright industries was 2.0021. Looking at the output multiplier by sector, the advertising services were highest at 2.6732, followed by press and literature (2.1325), motion picture and video (1.9942), and radio and television (1.9112). The software and databases showed the lowest level of 1.7072, which was lower than the average of core copyright industries.

Compared with other industries, the multiplier of the core copyright industries (2.0021) was much higher than that of the total services (1.7282), and slightly lower than that of the manufacturing industries (2.0810). This meant that the core copyright industries showed a higher degree of incentive to production than total services, and almost the same level as manufacturing (2.0810).

Table 5.2: Output Multipliers of Core Copyright Industries

Industry	Output Multipliers *
Core copyright industries **	2.0021
Press and literature	2.1325
Music, theatrical productions and operas	1.8078
Motion picture and video	1.9942
Radio and television	1.9112
Software and databases	1.7072
Advertising services	2.6732
Copyright collecting societies	1.7884
Total services**	1.7282
Manufacturing**	2.0810

* Output multiplier by industry = $1 \cdot (I - A^d)^{-1}$, $1 = (1, 1 \dots 1) (1 \times n)$

** Simple average

5.2 Value Added Multipliers

A value added multiplier of an industry denotes the size of value added directly or indirectly by the industry or other industries when one unit of the final demand for goods of the industry occurs.

The value added multiplier of the core copyright industries was 0.8317 in 2009. Among the core copyright industries, the value added multiplier of copyright collecting societies was the highest at 0.9229, followed by music, theatrical productions and operas (0.8554), and radio and television (0.8363). Press and literature showed the lowest value added multiplier of 0.7780.

Compared with other industries, the value added multiplier of the core copyright industries (0.8317) was much higher than that of manufacturing (0.5891), and was slightly higher than that of the total services (0.8286). This meant that the core copyright industries used more domestic inputs than other industries in their production process.

Table 5.3: Value Added Multipliers of Core Copyright Industries

Industry	Value Added Multipliers *
Core copyright industries **	0.8317
Press and literature	0.7780
Music, theatrical productions and operas	0.8544
Motion picture and video	0.8126
Radio and television	0.8363
Software and databases	0.8094
Advertising services	0.8086
Copyright collecting societies	0.9229
Total services**	0.8286
Manufacturing**	0.5891

* Value added multiplier = $1 + \tilde{A}^v \cdot (I - A^d)^{-1} \cdot 1$, $1 = (1, 1 \dots 1) (1 \times n)$,

\tilde{A}^v = diagonal matrix of value added coefficients

** Simple average

5.3 Employment Multipliers

An employment multiplier of an industry denotes the number of workers directly or indirectly employed by the industry or other industries when a final demand of KRW 1 billion for goods of the industry arises.

The employment multiplier of the core copyright industries was 16.8. This signifies that meeting every 1 billion of the final demand of the core copyright industries would require a workforce of 16.8 persons in the core copyright industries and in other industries together.

Looking at employment multipliers by sector, copyright collecting societies had the highest multiplier at 25.1, followed by music, theatrical productions and operas (20.8), motion picture and video (17.1), press and literature (16.1), and advertising services (15.3). Radio and television recorded the lowest employment multiplier of 10.0.

Compared with other industries, the employment multiplier of the core copyright industries (16.8) was much higher than that of the manufacturing (10.0), and was lower than the average of the total services (17.4).

Table 5.4: Employment Multipliers of Core Copyright Industries

Industry	Employment Multipliers
Core copyright industries **	16.8
Press and literature	16.1
Music, theatrical productions and operas	20.8
Motion picture and video	17.1
Radio and television	10.0
Software and databases	13.2
Advertising services	15.3
Copyright collecting societies	25.1
Total services**	17.4
Manufacturing**	10.0

* Employment multiplier = $1 \cdot \hat{l} \cdot (I - A^d)^{-1}$, $1 = (1, 1, \dots, 1)$ (1xn)

\hat{l} = diagonal matrix of total workers coefficients

** Simple average

5.4 Cross-Industry Comparison

The output multiplier of the core copyright industries in 2009 was 2.0021, which was almost the same level as manufacturing (2.0810). It was higher than agriculture, forestry and fishing (0.8173), the total services (1.7282), and all industries (1.9545).

The value added multiplier of the core copyright industries was 0.8317, which surpassed that of agriculture, forestry and fishing (0.8173), manufacturing (0.5891), construction (0.7494), total services (0.8286), and all industries (0.6867).

The employment multiplier of the core copyright industries was 16.8 in 2009, which was higher than those of manufacturing (10.0), construction (14.2), and all industries (12.4).

Compared with other industries, the core copyright industries had numerous positive contributions to the economic growth of the Republic of Korea in terms of incentive to production, value added, and employment generation.

Table 5.5: Industrial Comparison of Multipliers

	Output Multiplier	Value Added Multiplier	Employment Multiplier
Agriculture, forestry and fishing	1.8745	0.8173	40.5
Mining and quarrying	1.7310	0.8163	8.7
Manufacturing	2.0810	0.5891	10.0
Electricity, gas, steam and water supply	1.4827	0.4520	2.9
Construction	2.1292	0.7494	14.2
Total services	1.7282	0.8286	17.4
(Wholesale and retail trade)	1.6776	0.8653	28.0
(Accommodation and food services)	2.0654	0.7789	31.4
(Transportation)	1.5932	0.5765	12.7
Core copyright industries	2.0021	0.8317	16.8
All industries	1.9548	0.6867	12.4

6. RECENT TRENDS OF KEY PLAYERS IN THE CORE COPYRIGHT INDUSTRIES

6.1 The Press Industry

As shown in Table 6.1 below, real output of the press industry exhibited slight fluctuations since 2005. In the aftermath of the global financial crisis in 2008, its real output stood at approximately KRW 12.6 trillion in 2009, down 9.0% from the preceding year. The industry's value added in 2009 declined by 6.9% from the previous year to KRW 5.1 trillion. In contrast, employment inched up 0.5% from the preceding year to 146,838 persons.

Table 6.1: Summary of the Press Industry

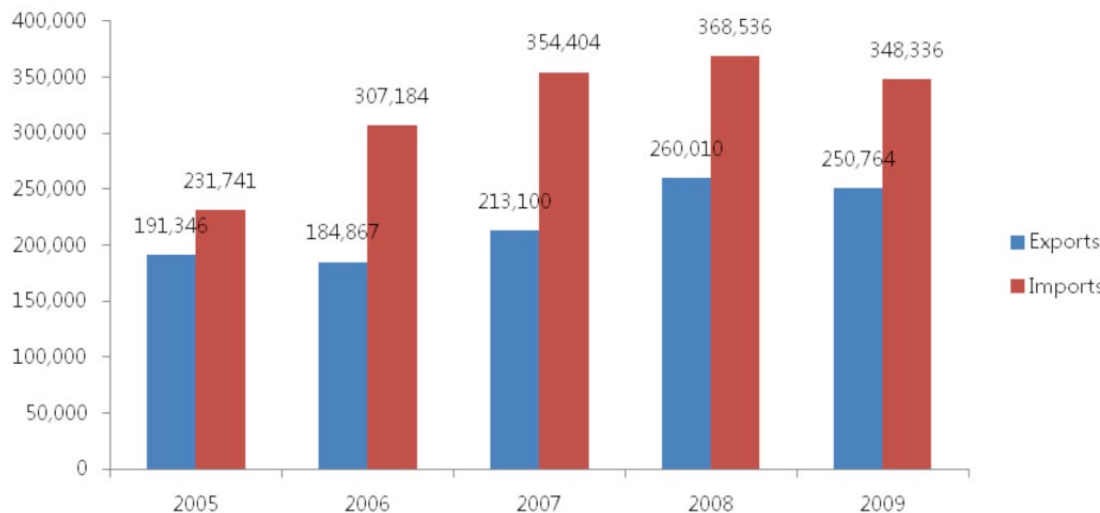
(2005 prices, million won; persons)

Description	Output	Value Added	Number of Employees
2005	12,951,883	5,501,992	148,784
2006	12,715,076	5,309,119	148,987
2007	13,535,116	5,714,141	154,349
2008	13,837,698	5,515,941	146,050
2009	12,599,850	5,135,108	146,838

Chart 6.1 displays the trend in imports and exports of the press industry. Since 2005, the industry has seen an overall rise in the amount of its exports notwithstanding some annual fluctuations. Its imports expanded steadily with the exception of 2009. As of 2009, its exports totalled 251 million US dollars, which is far less than its imports of 348 million US dollars.

Chart 6.1: Imports and Exports of the Press Industry

(Thousand US dollars)

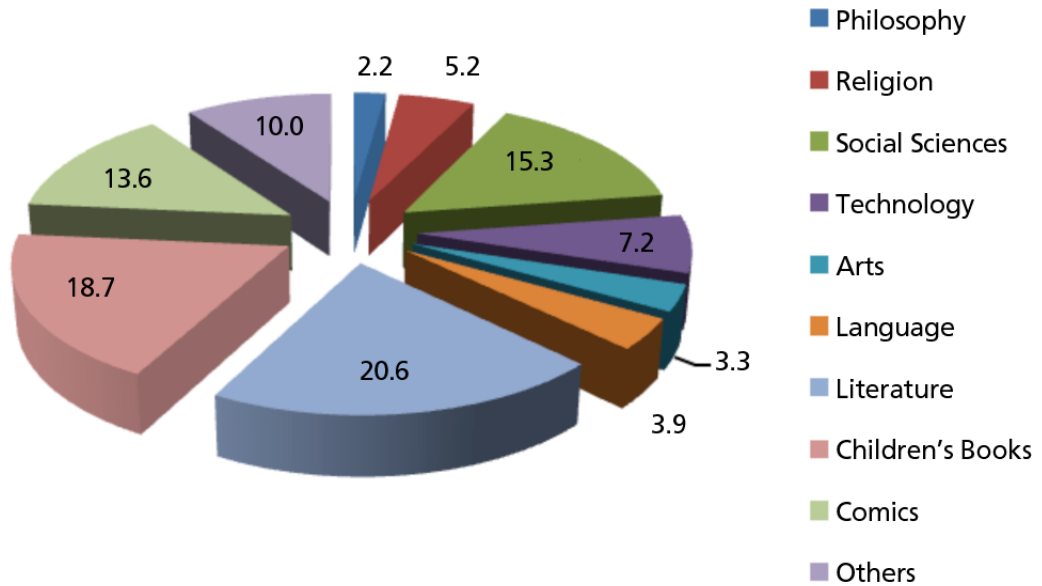


Source: Contents Industry Statistics 2010

About 42,000 books were newly published in 2009. Among them, literary books comprised the largest portion (20.6%), which was followed by children's books (18.7%), social science books (15.3%) and comics (13.6%).

Chart 6.2: Number of Books Newly Published in 2009

(%)



Source: Korean Publication Yearbook 2010

Following the introduction of an electronic publication certification system in 1998, the cumulative number of certified electronic publications remained at approximately 2.4 million as of 2009. As shown in Table 6.2 below, certification of electronic publications gradually increased from 2005. In particular, a surge was seen in the number of certification cases in 2009, which was apparently ascribed to the impending launching of paid electronic publication certification services. It seemed that applications for certification of existing electronic publications were filed concurrently against this backdrop.

Table 6.2: Annual Electronic Publication Certifications

(Cases)

Description	2005	2006	2007	2008	2009
Number of certifications	3,281	45,029	6,987	311,805	2,034,961
Total cumulative number of certifications	2,402,063				

Source: Korean Publication Yearbook 2010

6.2 The Music Industry

As demonstrated in Table 6.3, real output of the music industry had been declining slightly since it reached a peak of KRW 2.8 trillion in 2007. In 2009, its real output was recorded at KRW 2.4 trillion, down 4.5% from the previous year. In 2009, its value added showed a similar trend, and was placed at KRW 1.2 trillion, down 5.0% from the previous year. Its employment, which peaked in 2007, had been waning since then. As of 2009, the number of employees in this sector was estimated at 67,000 persons.

Table 6.3: Summary of the Music Industry

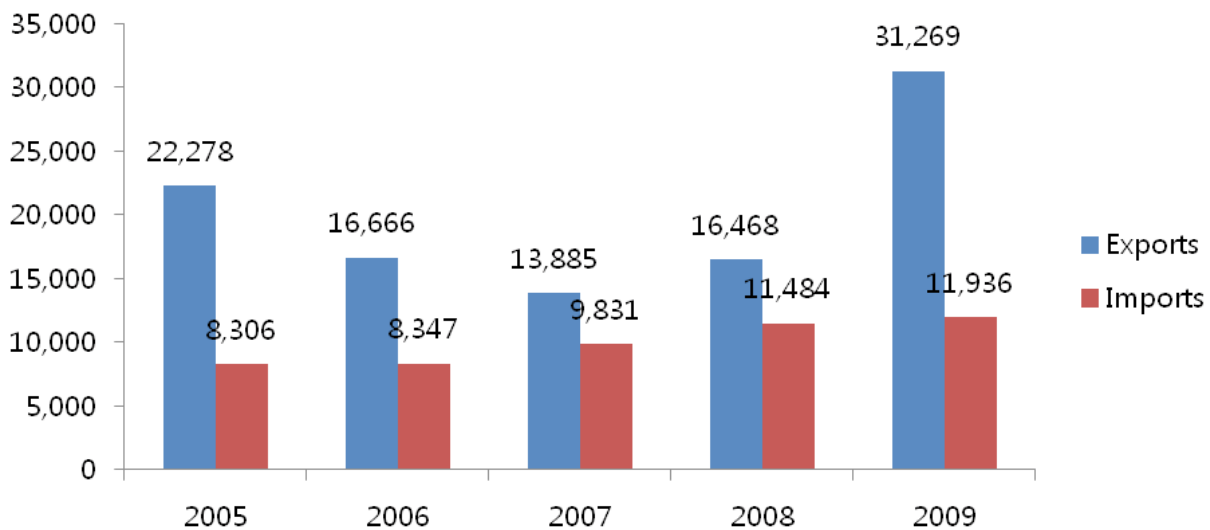
(2005 prices, million won, persons)

Description	Output	Value Added	Number of Employees
2005	2,171,950	1,114,103	70,577
2006	2,538,320	1,243,374	72,232
2007	2,772,084	1,416,752	79,638
2008	2,543,750	1,276,816	69,703
2009	2,428,498	1,212,605	67,451

Chart 6.3 illustrates the trend in imports and exports of the music industry. Exports, which had been caught up in a downturn until 2007, moved to a high growth trajectory. In 2009, exports of the music industry soared 89.9% from the preceding year to 31 million US dollars, while imports enjoyed a slight increase without much fluctuation. The music industry's imports amounted to 12 million US dollars in 2009. Overall, the industry's exports outweighed its imports.

Chart 6.3: Trend of Imports and Exports by the Music Industry

(Thousand US dollars)

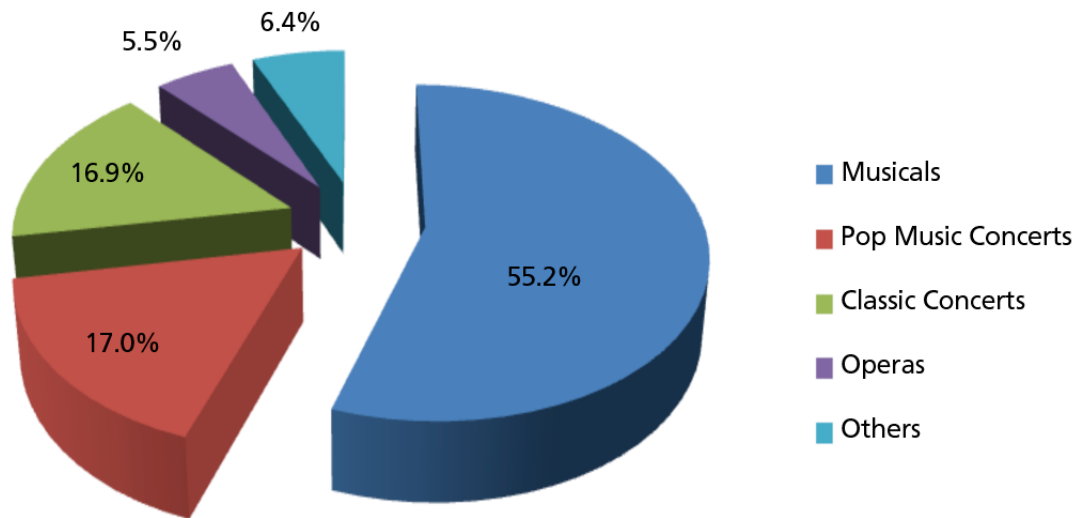


Source: Contents Industry Statistics 2010

In 2009, the music industry registered KRW 257 billion in total revenues. Among this amount, musicals (KRW 142 billion) comprised 55.2% of the total, followed by pop music concerts (KRW 43 billion or 17.0%) and classical concerts (KRW 41 billion or 16.0%).

Chart 6.4: Composition of Music Performance Industry in 2009

(%)



Source: Contents Industry Statistics 2010

6.3 The Motion Picture Industry

Table 6.4 illustrates the status of the motion picture industry. Year-to-year real output of the industry showed a downward trend in 2007 and 2008. In 2009, it took an upturn with KRW 1.8 trillion in output. However, its real value added declined 6.6% from the previous year to KRW 560 billion. Employment in the industry has been steadily declining from 2005. In 2009, however, the downward trend came to a halt. The industry retained about 20,000 employees, a level similar to those of the previous year.

Table 6.4: Summary of the Motion Picture Industry

(2005 prices, million won, persons)

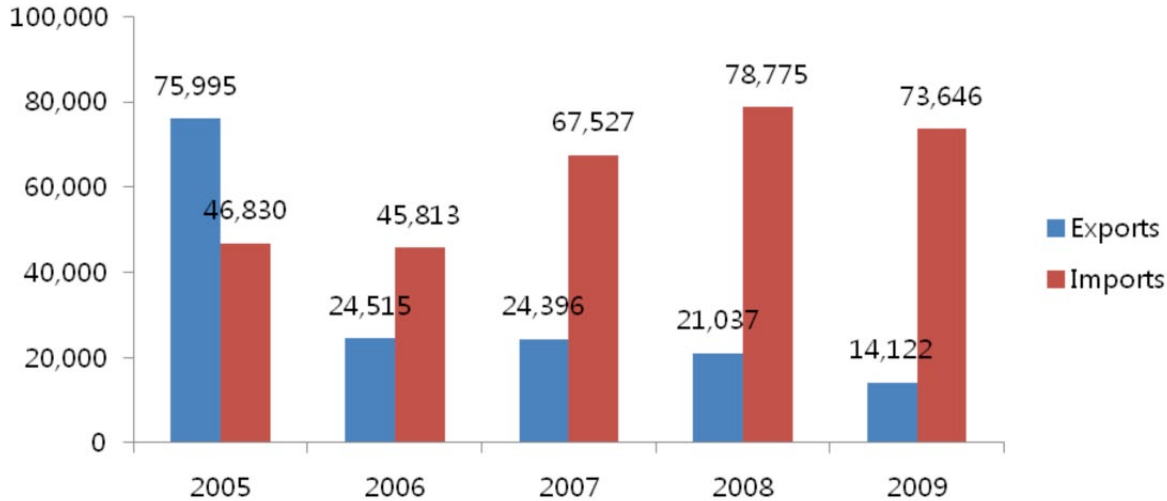
Description	Output	Value Added	Number of Employees
2005	1,907,479	662,948	23,669
2006	2,013,856	740,413	23,210
2007	1,848,479	627,288	21,750
2008	1,680,409	610,216	19,787
2009	1,847,244	569,791	19,884

Source: Contents Industry Statistics 2010

Chart 6.5 displays the trend in imports and exports of the motion picture industry. Its exports have been shrinking since 2005. In 2009, the industry's exports amounted to approximately 14 million US dollars. Meanwhile, its imports grew steadily until 2008, but dropped 6.5% in 2009 from the preceding year to 74 million US dollars. Its imports generally outpaced its exports.

Chart 6.5: Imports and Exports of the Motion Picture Industry

(Thousand US dollars)



Source: Contents Industry Statistics 2010

6.4 The Broadcasting Industry

As illustrated by Table 6.5, real output of the broadcasting industry rose slightly except for 2007. In 2009, its real output edged up from the previous year to about KRW 9.6 trillion. Its real value added during this period decreased a small degree to approximately KRW 3.5 trillion. In 2009, employment dipped slightly to 39,800 persons.

Table 6.5: Summary of the Broadcasting Industry

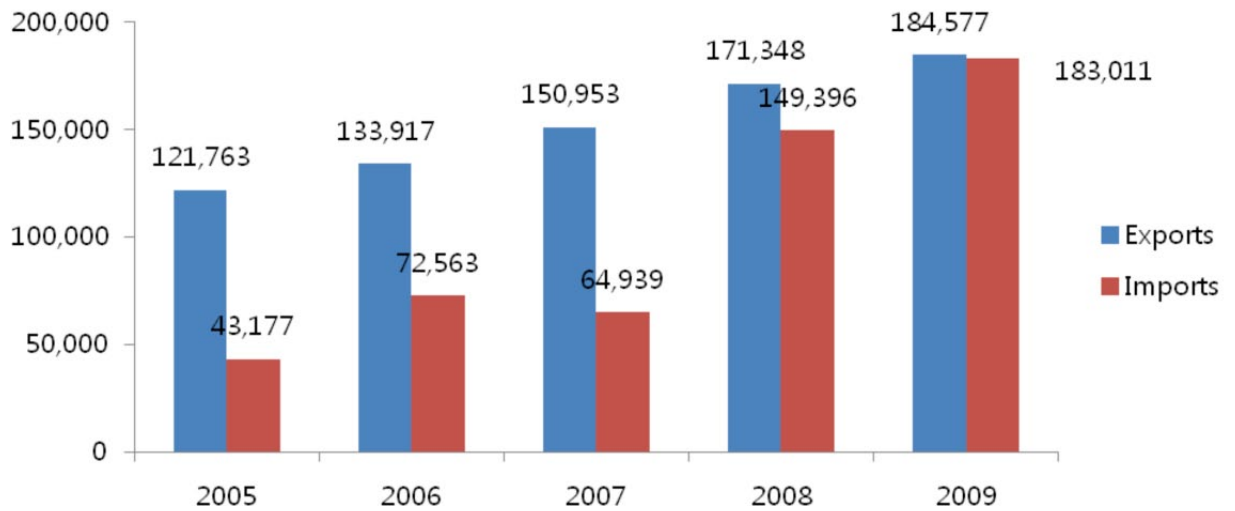
(2005 prices, million won, persons)

Description	Output	Value Added	Number of Employees
2005	8,135,670	2,983,374	38,366
2006	9,394,888	3,528,422	38,079
2007	9,107,171	3,353,940	38,538
2008	9,444,760	3,517,704	40,651
2009	9,568,709	3,507,386	39,836

The trend in imports and exports of the broadcasting industry is presented in Chart 6.6 shown below. Since 2005, exports of the industry registered steady growth. As of 2009, it recorded 185 million US dollars in exports. The industry's imports gradually rose except for the drop in 2007. In 2008, its imports increased 130.1% from the preceding year to 149 million US dollars. In 2009, its imports stood at 183 million US dollars. This indicates that imports exhibited a higher increase rate than exports. However, it can be noted that the gap between exports and imports of the broadcasting industry is gradually narrowing.

Chart 6.6: Imports and Exports of the Broadcasting Industry

(Thousand US dollars)



Source: Contents Industry Statistics 2010

6.5 The Software and Database Industry

As shown in Table 6.6, real output of the software and database industry has witnessed a gradual increase with the exception of 2007. In 2009, its real output was KRW 40.8 trillion, an increase of 14.0% from the preceding year. Its value added grew 10.5% year on year to KRW 18.6 trillion. In contrast with the large increase in its output and value added, its employment in 2009 registered a comparatively small increase of 6.3%, with approximately 258,000 persons.

Table 6.6: Summary of the Software and Database Industry

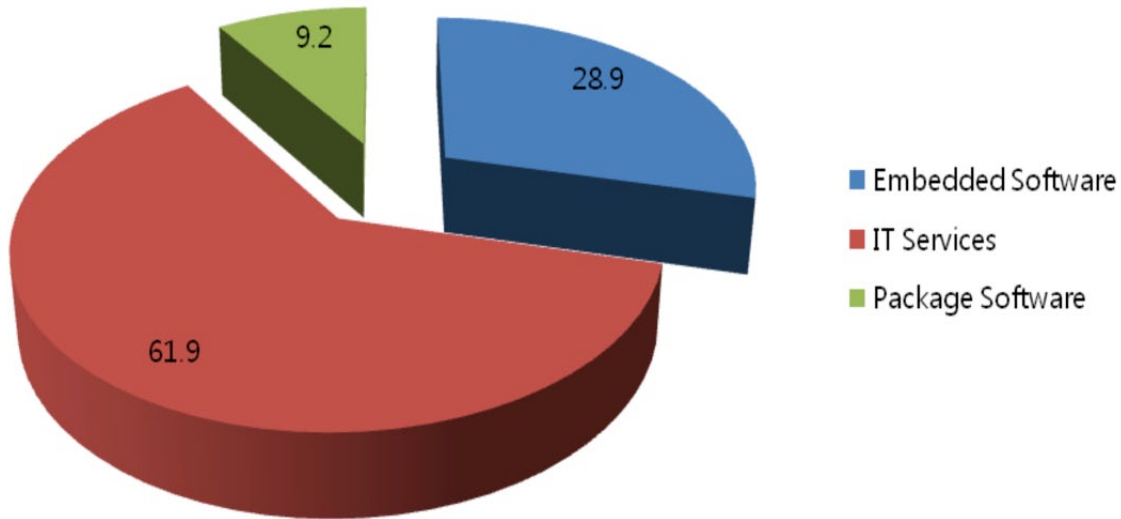
(2005 prices, million won, persons)

Description	Output	Value Added	Number of Employees
2005	27,952,648	13,945,815	209,912
2006	31,391,672	14,186,021	235,677
2007	30,783,610	13,950,184	247,495
2008	35,783,797	16,861,844	243,022
2009	40,807,262	18,630,410	258,426

Chart 6.7 breaks down the output of the software industry in 2009 into three areas. Of the entire output of KRW 35.7 trillion, IT services comprised the largest share of 61.9%, which was followed by embedded software (28.9%) and package software (9.2%).

Chart 6.7: Output Shares of the Software Industry in 2009

(%)

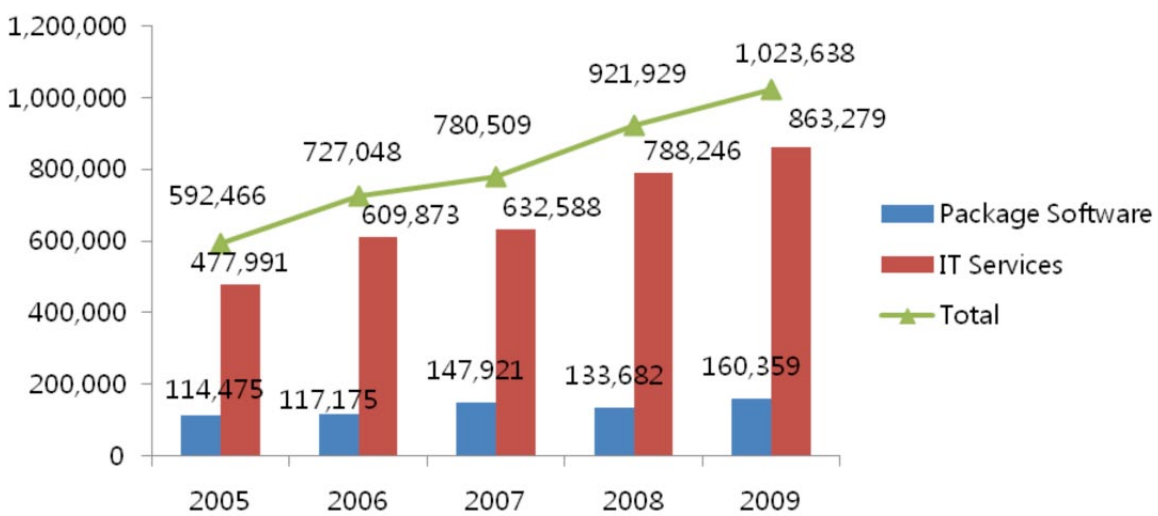


Source: White Paper on Software Industry 2010

The trends in software exports are shown in Chart 6.8. Software exports have been gradually increasing since 2005; exports in 2009 recorded 1.0 billion US dollars. Package software export kept increasing during the period 2005-2009 except for a 9.6% year-on-year decrease in 2008. The amount of software exports was placed at 160 million US dollars in 2009. IT service exports have been steadily increasing as well, recording a total of 863 million US dollars in 2009.

Chart 6.8: Trends in Software Exports

(Thousand US dollars)

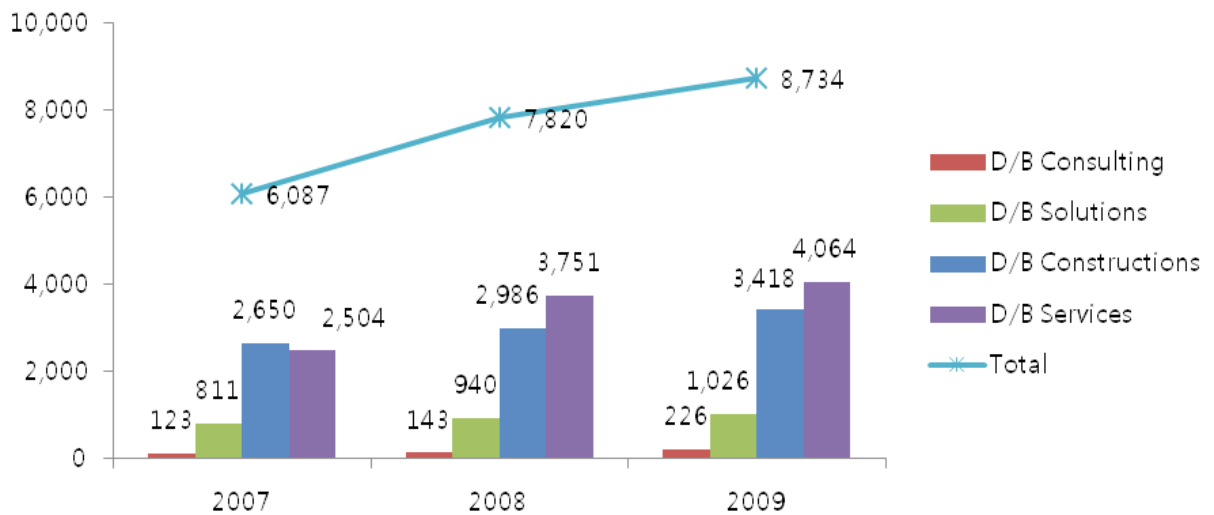


Source: Chronology of Statistics on Information and Communication Industry 2010

The database (D/B) industry consists of consulting, solutions, construction and services. As indicated in Chart 6.9, services occupied the largest share, followed by construction, solutions, etc. The market size of the database industry was estimated at KRW 8.7 trillion as of 2009, an 11.7% increase from the previous year.

Chart 6.9: Market Size of the Domestic Database Industry

(Billion won)



Source: Database White Paper 2011

6.6 The Advertising Industry

Table 6.7 illustrates the status of the advertising industry. Real output of the industry has been on a declining trend since reaching a peak of KRW 8.1 trillion in 2007. As of 2009, its real output remained at KRW 6.9 trillion, down 4.0% from the previous year. As of 2009, its real value added shrank 17.1% from the preceding year to KRW 2.7 trillion. In 2008, both its real output and real value added decreased. Notwithstanding this trend, its employment saw an increase. In 2009, however, its employment edged down about 3.5% from the previous year to approximately 40,000 people.

Table 6.7: Summary of the Advertising Industry

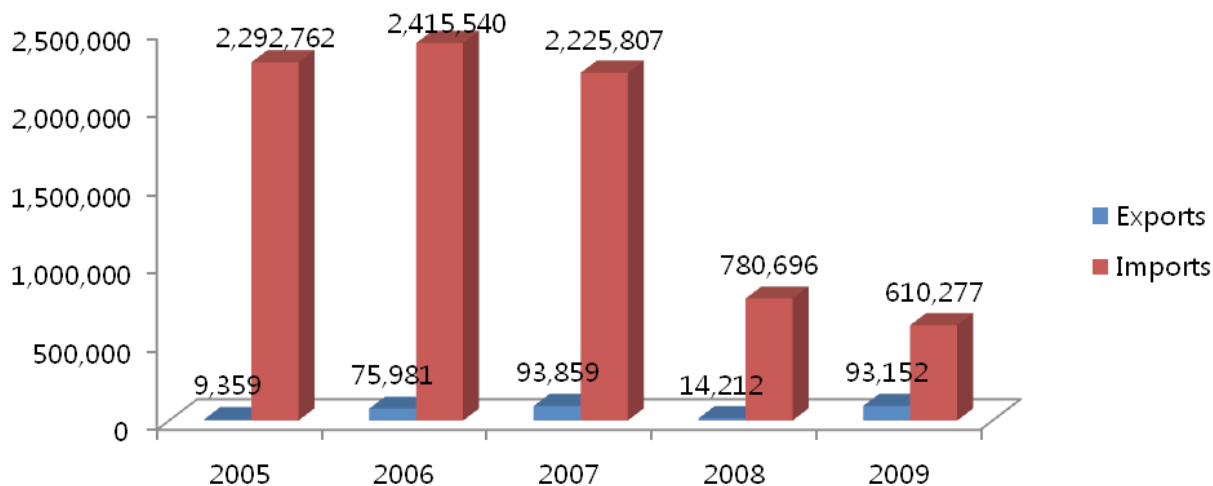
(2005 prices, million won, persons)

Description	Output	Value Added	Number of Employees
2005	7,177,413	3,050,063	34,589
2006	7,470,592	3,166,095	35,342
2007	8,085,199	3,444,695	37,841
2008	7,144,366	3,232,574	41,569
2009	6,856,226	2,680,775	40,134

Chart 6.10 illustrates the trend in imports and exports of the advertising industry. The amount of exports in the industry peaked at 94 million US dollars in 2007, but plummeted in 2008. In 2009, it recovered to its past level by recording 93 million US dollars. Imports of the industry reached the highest point 2.4 billion US dollars in 2006. Since then, its imports had been steadily decreasing. As of 2009, the industry registered 610 million US dollars in imports. Overall, the disparity in the industry's exports and imports was being bridged. However, its imports still comprised a larger portion than its exports.

Chart 6.10: Imports and Exports of the Advertising Industry

(Thousand US dollars)



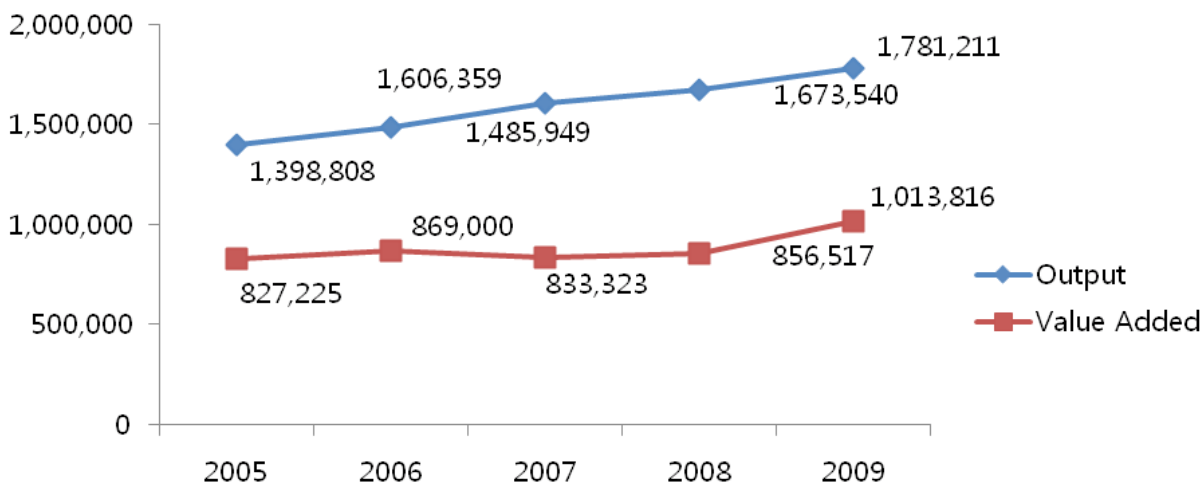
Source: Contents Industry Statistics 2010

6.7 Photography, Visual and Graphic Arts Industry

As shown in Chart 6.11, real output of the photography sector of the core copyright industries expanded steadily. As of 2009, its real output recorded a 6.4% year-on-year increase to KRW 1.8 trillion. In 2007, real value added of this sector decreased 4.1% from the previous year, but it had seen a steady increase across the board. As of 2009, its value added grew 18.4% from the preceding year to KRW 1.0 trillion.

Chart 6.11: Summary of the Photography Industry

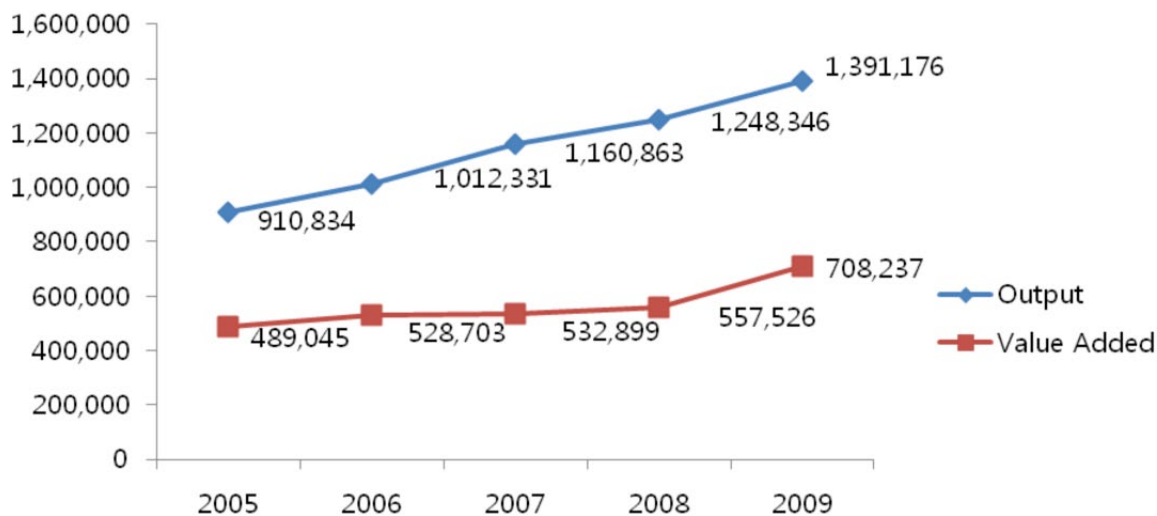
(2005 prices, million won)



Real output of the visual and graphic arts industry, as shown in Chart 6.12, exhibited strong growth over the period. As of 2009, its real output registered an 11.4% year-on-year increase to KRW 1.4 trillion. Its real value added also grew consistently, but recorded a lower rate of increase compared to its output. In 2009, its real value added soared 27.0% from the previous year to approximately KRW 708 billion, showing a substantial improvement in comparison with past increase rates.

Chart 6.12: Summary of the Visual and Graphic Arts Industry

(2005 prices, million won)



6.8 Copyright Collection Societies

The Republic of Korea manages the copyright trust scheme through its incorporation of provisions for commissioned copyright management in its Copyright Act in a bid to alleviate difficulties met by owners of rights concerning the management of their rights, as well as to promote the convenience of licensing for users. Table 6.8 shown below portrays the copyright collection societies in the Republic of Korea as of 2009. There are three such organizations in the field of music, literature, and visual works, respectively. In addition, there are two collective management organizations, one handling press and public domain works regardless of genre, and one dealing with reprographic rights.

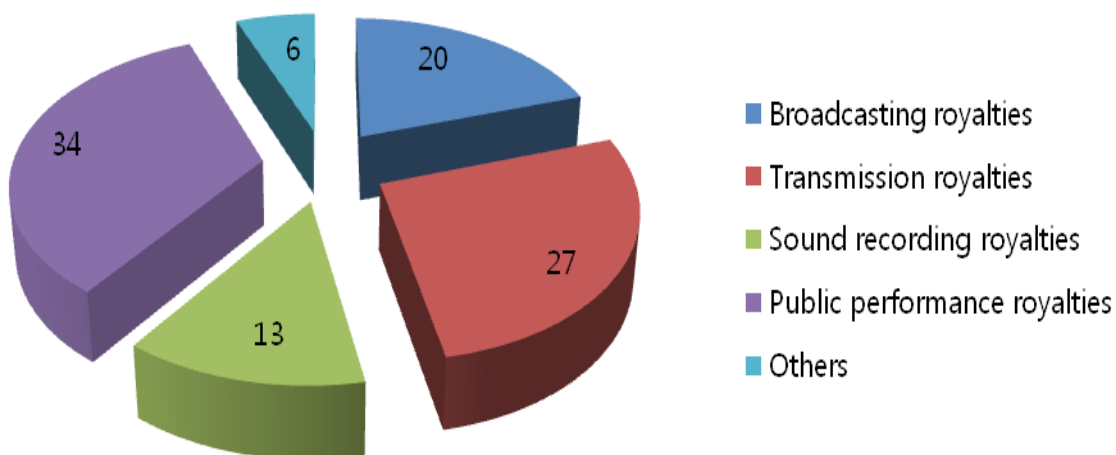
Table 6.8: Summary of Collective Management Organizations

	Name of Collective Management Organization	Major Area	Remarks
Music	Korea Music Copyright Association	Composers, lyricists and music publishers	
	Federation of Korean Music Performers	Singers, musicians etc.	
	Korean Association of Phonogram Producers	Phonogram producers	
Literature	Korean TV and Radio Writers Association	TV and radio writers	
	Korean Society of Authors	Authors of literature, comics, artistic works and photography	
	Korean Scenario Writers Association	Movie scenario writers	
Visual works	Korean Film Producers Association	Film producers	
	Korea Movie and Video Industry Association	Acts of publicly performing videos and DVDs (Performers' rights)	
	Korea Broadcasting Performers Association	Broadcasting performers including TV and voice actors/actresses	
	Korea Press Foundation	News works	Public domain and press
	Korea Creative Contents Agency	Public domain works	
	Korea Reprographic and Transmission Rights Association	Acts of reproduction and transmission	Re-trust

The Korea Music Copyright Association was established to manage and protect music-related public performance rights, broadcasting rights, transmission rights, digital sound transmission rights, reproduction rights, etc. This collective management organization had 10,202 registered members as of 2009 and generated the largest amount of revenues among the twelve trust organizations. As of 2009, the amount of its royalty collection stood at approximately KRW 87 billion. Of this amount, public performance royalties comprised the largest portion with about KRW 29 billion or 34%, followed by transmission royalties (27%) and broadcasting royalties (20%).

Chart 6.13: Royalty Collection of the Korea Music Copyright Association in 2009

(%)



Source: Korea Music Copyright Association

The Federation of Korean Music Performers is an organization established to manage and safeguard stage performers' neighbouring rights. As of 2009, the organization had 3,234 registered members. Its major duties include collection and distribution of broadcasting compensations for commercial phonograms, compensations for digital sound transmissions, and public performance compensations for commercial phonograms as well as managing neighbouring rights trusts for stage performers.

The Korean Association of Phonogram Producers, established to manage and protect sound sources, counted 1,842 registered members as of 2009. Among its core business affairs are compensation collection and distribution as the designated recipient of broadcasting compensations for commercial phonograms, compensations for digital sound transmissions, and public performance compensations as well as managing trusts pertaining to sound sources. The Korean TV and Radio Writers Association was instituted to manage and protect copyrights of broadcasting writers. As of 2009, it had 2,206 registered members.

As an organization established to manage and safeguard works in the literary and academic fields, the Korean Society of Authors had 2,340 individual members and 70 institutional members as of 2009. Major areas of trusts for the organization include poetry, novels, theses, photographs, video works and artistic works. The Korean Scenario Writers Association was set up to manage and protect the rights of scenario writers. As of 2009, it had 132 registered members.

The Korean Film Producers Association, originating from a consultative body among producers, had 65 registered members as of 2009. Due to the nature of film copyrights, however, the organization faces difficulties in securing works for trust. The Korea Movie and Video Industry Association was set up to manage and protect the rights of visual copyright owners. As of 2009, it had 46 corporate members. Its primary duties are giving permission to DVD-showing sites, etc. regarding their use of copyrights, in addition to managing public performance rights to film works on a trust basis.

The Korea Broadcasting Performers Association is an organization established to manage and safeguard neighbouring rights of broadcasting performers, including TV and voice actors/actresses and MCs. As of 2009, it had 3,289 registered members. The Korea Press Foundation was established to manage and protect the rights to news works. As of 2009, it had 59 related media as registered members.

The copyright management concerning works in the public domain is conducted by the Korea Creative Contents Agency. As of 2009, it had about 29,000 works under its management. The Korea Reprographic and Transmission Rights Association was set up to manage and protect rights pertaining to literature reproduction and transmission. As of 2009, its registered members comprised 14,999 individual members and 434 institutional members. Its major functions include collection and distribution of compensations for textbooks, compensations for reproduction for the purpose of teaching, compensations from libraries, etc. as well as managing the trust for reproduction and transmission rights.

As shown in Table 6.9, output of the copyright trust industry has been progressively expanding. As of 2009, the output of collective management organizations was KRW 22.8 billion, while their combined value added was estimated at KRW 11.7 billion. The combined number of their employees stood at 386 people.

Table 6.9: Summary of Copyright Collective Management Organizations

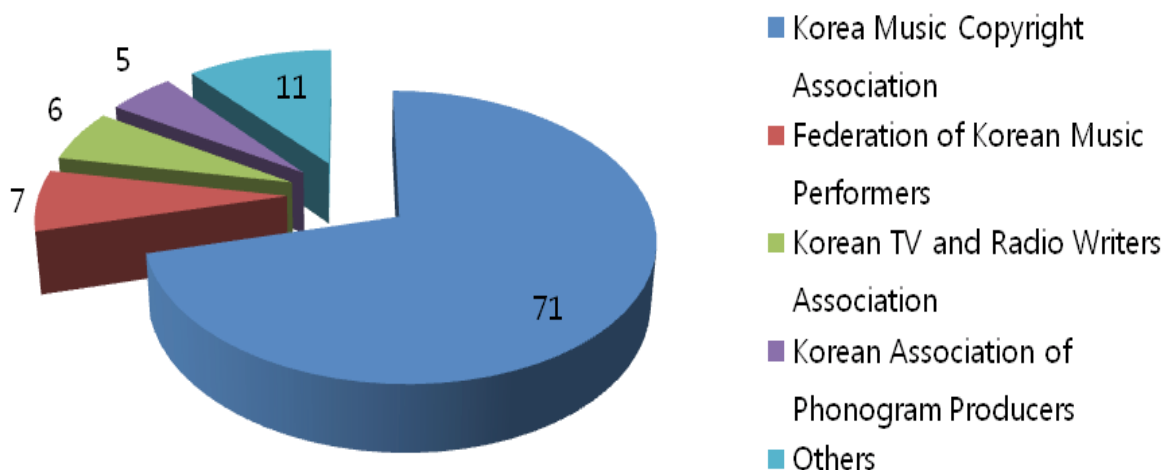
(Million won, persons)

Description	Output	Value Added	Number of Employees
2005	13,224	6,718	207
2006	14,573	7,521	247
2007	19,862	9,663	291
2008	19,895	10,917	364
2009	22,757	11,694	386

Chart 6.14 shows the output of each of the 12 copyright collecting societies in 2009. The Korea Music Copyright Association made up the bulk (about 71%) of the combined output of KRW 22 billion, followed by the Federation of Korean Music Performers (7%), Korean TV and Radio Writers Association (6%), and the Korean Association of Phonogram Producers (5%). Overall, the three music-related organizations demonstrated a dominant presence with about 83% of the total output. In contrast, the trust business of other genres remains relatively meagre.

Chart 6.14: Revenue Shares of Collective Management Organizations in 2009

(%)



7. SUMMARY AND IMPLICATIONS

7.1 Summary

7.1.1 Contribution to National Economy

The Republic of Korea's copyright industries made significant contributions to the national economy in 2009. The value added in nominal terms was KRW 105.4 trillion (9.89% of GDP). The number of employees was 1,467,000 persons (6.24% of nationwide employment). In short, 9.89% of the ROK's GDP was generated by the copyright-based industries, and 6.24% of the workforce in the Republic of Korea was employed by the copyright-based industries.

Table 7.1: Contribution of Copyright-Based Industries in 2009

(Nominal values)

Industry	Output (1 bn won)	Value Added (1 bn won)	GDP Shares (%)	Employees (1,000 persons)	Employment Shares (%)
1. Core copyright	86,074	37,434	3.51	670	2.85
2. Interdependent copyright	120,538	50,629	4.75	374	1.59
3. Partial copyright	14,775	6,988	0.66	158	0.67
4. Non-dedicated support	25,967	10,319	0.97	264	1.12
Copyright-based industries	247,354	105,370	9.89	1,467	6.24
ROK economy	N/A	10,264,518	100.00	23,506	100.00

When it comes to the composition of the ROK copyright industries in 2009, the core copyright industries accounted for 34.8% of the entire output, 35.5% of the value added and 45.7% of the workers. The interdependent copyright industries comprised 48.7% of the output, 48.0% of the value added, and 25.5% of the workers. In the meantime, the partial copyright industries accounted for only 6.0% of the output, 6.6% of the value added, and 10.8% of the workers.

In terms of (nominal) annual contribution to GDP by the copyright-based industries, the share of the copyright-based industries increased continuously to 9.89% in 2009 from 8.79% in 2005. The contribution of the copyright-based industries to nationwide employment increased slightly to 6.24% in 2009 from 5.97% in 2005.

Chart 7.1: Trends of the Contribution to GDP and Employment

(%)



7.1.2 Trends of Growth

Growth rates of the real value added of the copyright-based industries grew at a pace of 7.3% on annual average during the period 2006-2009. It hovered much higher than the average annual real GDP growth rate (3.2%). This trend was strongly manifested in 2008 and 2009, when the GDP growth rate remained relatively low.

On the other hand, the number of employees in the copyright-based industries increased at an annual average rate of 1.8% during the period 2006-2009, which was 2.5 times higher than that of the entire number of employees in the Republic of Korea (0.7%). In 2009, the number of employees decreased 0.3% compared with the previous year, but employees in copyright-based industries increased by 1.9%.

Table 7.2: Growth Rate of the Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average in 2006-2009
Value added of copyright-based industries	6.2	8.6	10.7	3.9	7.3
GDP	5.2	5.1	2.3	0.3	3.2
Employment in copyright-based industries	2.8	2.6	-0.02	1.9	1.8
Total number of employees	1.3	1.2	0.6	-0.3	0.7

7.1.3 Comparison with Other Industries

The value added of the copyright-based industries was worth KRW 105.5 trillion and represented 9.9% of GDP. The size of the copyright-based industries was almost the same size of general government (9.8%), and was much bigger than those of construction (6.3%), wholesale and retail trade (7.6%), financial intermediation (6.1%), information and communication (3.9%), and health and social work (4.0%).

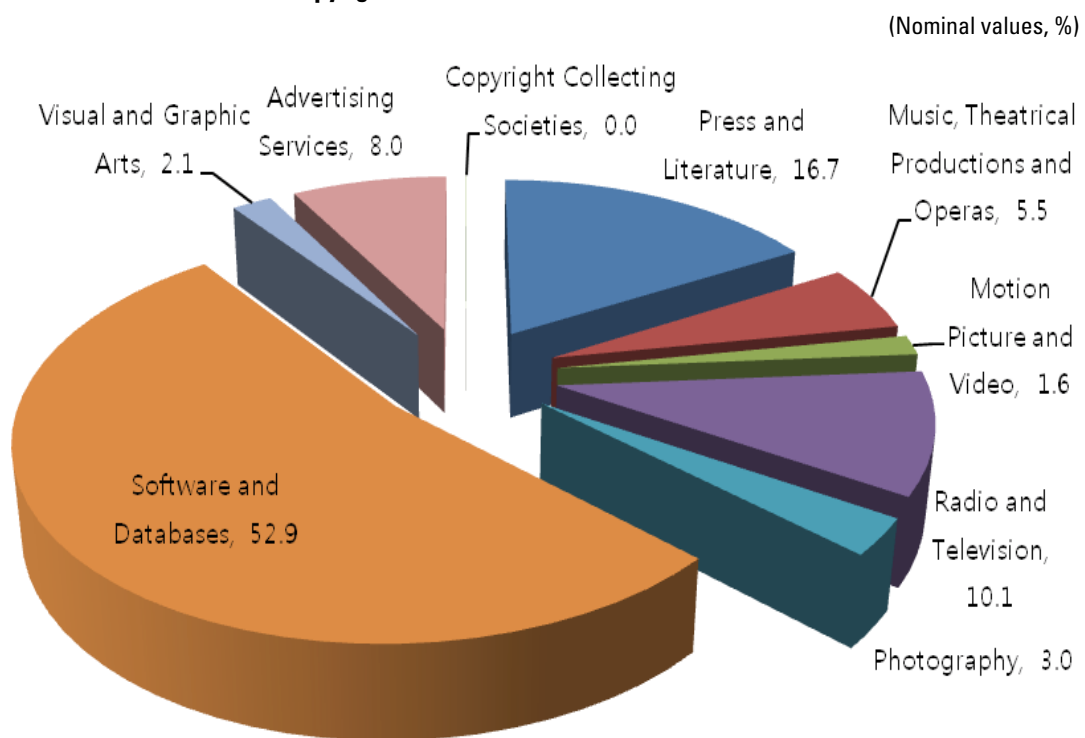
Table 7.3: Copyright-Based Industries Compared to Selected Other Industries

	2005		2009	
	Billion won	% of GDP	Billion won	% of GDP
Copyright-based industries	76,051	8.8	105,370	9.9
Core copyright industries	29,345	3.4	37,434	3.5
General government	78,929	9.1	104,696	9.8
Manufacturing	213,646	24.7	266,578	25.0
Construction	59,285	6.9	66,577	6.3
Wholesale and retail trade	64,193.9	7.4	80,757.0	7.6
Financial intermediation	53,395	6.2	65,036	6.1
Information and communication	36,256	3.9	41,225	3.9
Health and social work	28,558	3.3	43,092	4.0
GDP	865,241	100.0	1,065,037	100.0

7.1.4 Composition and Growth of Core Copyright Industries

In 2009, each sector of the core copyright industries showed the following component ratio: In terms of value added, the software and databases accounted for 52.9% of the entire core copyright industries, followed by press and literature (16.7%), radio and television (10.1%), and advertising services (8.0%).

Chart 7.2: Value Added Share of Core Copyright Industries in 2009



The real value added of the core copyright industries between 2006 and 2009 increased by an average of 4.2% per annum. The highest growth was recorded by the copyright collecting societies showing an increase of 12.6%. Next in line were the visual and graphic arts (9.7%), software and databases (7.5%), and photography (5.2%) industries. On the other hand, press and literature, motion picture and video, and advertising services experienced a decrease in the average annual growth rate during the same period.

Table 7.4: Value Added Growth Rate of Core Copyright Industries

(2005 prices, %)

	2006	2007	2008	2009	Average 2006-2009
1. Press and literature	-2.9	8.1	-2.3	-6.0	-0.9
2. Music, theatrical productions and operas	1.1	13.8	-2.5	1.2	3.2
3. Motion picture and video	11.7	-15.3	-2.7	-6.6	-3.7
4. Radio and television	18.3	-5.0	4.9	-0.3	4.1
5. Photography	5.1	-4.1	2.8	18.4	5.2
6. Software and databases	1.7	-1.7	20.9	10.5	7.5
7. Visual and graphic arts	8.1	0.8	4.6	27.0	9.7
8. Advertising services	3.8	8.8	-6.2	-17.1	-3.2
9. Copyright collecting societies	1.8	41.4	-4.4	16.7	12.6
Total	3.1	1.4	8.8	3.4	4.2

7.1.5 Foreign Trade

The Republic of Korea is a net importing country in copyright-related goods and services. The trade deficit in the copyright-related goods and services continued to increase to 6.0 billion US dollars in 2009, up 78.9% from 3.4 billion US dollars in 2005. The trade deficit was generated mainly by the press and literature, and advertising services.

Imports of copyright-related goods and services increased from 5.2 billion US dollars in 2005 to 8.3 billion US dollars in 2009. Imports sharply increased more than 20% in 2007 and 2008 for two consecutive years, but they rose by 0.5% in 2009.

In contrast, exports of copyright-related goods and services fluctuated within a range between 1.7 billion US dollars and 2.2 billion US dollars for the period 2005-2009, except in 2008 when it recorded 3.2 billion US dollars.

Table 7.5: Trade in Copyright-Related Goods and Services

(Million US dollars, %)

		2005	2006	2007	2008	2009
Exports	Amount	1,862	1,702	1,782	3,192	2,221
	(%Change)	(-)	(-8.6)	(4.7)	(79.1)	(-30.4)
Imports	Amount	5,233	5,526	6,766	8,214	8,253
	(%Change)	(-)	(5.6)	(22.5)	(21.4)	(0.5)
Difference	Amount	-3,371	-3,824	-4,984	-5,022	-6,032

7.1.6 International Comparison

In terms of the GDP contribution by the total copyright industries, the average GDP contribution of the 29 countries on which information was available was 5.45%. The highest contribution was recorded by the USA with 11.05%, followed by Australia (10.30%), the Republic of Korea (9.89%), Hungary (6.66%) and China (6.37%). On the other hand, Brunei Darussalam (1.58%), Peru (2.67%) and Ukraine (2.85%) experienced low contribution.

The average of the 29 countries' employment contribution was 5.99%. The Philippines had the highest contribution of 11.10%, followed by Mexico (11.01%), Bhutan (10.09%), the Netherlands (8.80%) and the USA (8.51%). Other countries such as Ukraine (1.90%), Jamaica (3.03%), Panama (3.17%), Brunei Darussalam (3.20%) and Kenya (3.26%) showed low figures. The Republic of Korea's employment contribution of the total copyright industries was 6.24%, slightly higher than the average of the 29 countries.

With regard to the GDP contribution of the core copyright industries, the average GDP contribution of the 29 countries was 3.03%. Australia topped this category with 7.30%, followed by the USA (6.44%), Panama (5.40%), and the Netherlands (4.00%), which were classified as countries with high GDP contribution by the core copyright industries. The GDP contribution of the Republic of Korea was estimated at 3.51%, slightly hovering over the average of the 29 countries.

Regarding the contribution of the core copyright industries to national employment, the average of the 29 countries was 3.19%. The Philippines led the high-ranking group with 8.81%, followed by the Netherlands (6.20%), Australia (4.97%), Slovenia (4.60%), the Russian Federation (4.29%) and the USA (4.05%). The Republic of Korea's employment contribution of the core copyright industries was 2.85%, lower than the average of the 29 countries.

In terms of the share of core copyright industries in the value added of the total copyright industries for each country, the average of the 29 countries was 54.9%. Panama led the high-ranking group with 85.0%, followed by Finland (76.6%), Canada (74.2%), the Philippines (73.2%) and Australia (70.9%). The middle of the list included the USA (58.3%), Colombia (57.6%), Hungary (59.5%), Singapore (55.9%) and Ukraine (54.0%), whereas at the bottom of the list were the Russian Federation (39.4%), the Republic of Korea (35.5%), Jamaica (35.3%), Bhutan (34.8%) and Mexico (32.5%).

Table 7.6: Share of Core Copyright Industries in the Total Copyright Industries

(Value added, %)

High			Middle			Bottom		
	Published	Share		Published	Share		Published	Share
Panama	2009	85.0	Hungary	2010	59.5	Russian Federation	2007	39.4
Finland	2010	76.6	USA	2009	58.3	Republic of Korea	2011	35.5
Canada	2004	74.2	Colombia	2008	57.6	Jamaica	2007	35.3
Philippines	2006	73.2	Singapore	2007	55.9	Bhutan	2011	34.8
Australia	2009	70.9	Ukraine	2008	54.0	Mexico	2006	32.5

Source: Overview of WIPO Surveys on the Economic Contribution of the Copyright Industries, Presentation by Dimiter Gantchev, (2011.11)

7.1.7 Multipliers of the Core Copyright Industries

The output multiplier of the core copyright industries in 2009 was 2.0021, which was almost the same as the one of manufacturing (2.0810). It was higher than agriculture, forestry and fishing (0.8173), the total services (1.7282), and all industries (1.9545).

The value added multiplier of the core copyright industries in 2009 was 0.8317, which surpassed that of agriculture, forestry and fishing (0.8173), manufacturing (0.5891), construction (0.7494), total services (0.8286), and all industries (0.6867).

The employment multiplier of the core copyright industries was 16.8 in 2009, which was higher than those of manufacturing (10.0), construction (14.2), and all industries (12.4).

Compared with other industries, the core copyright industries made numerous positive contributions to the economic growth of the Republic of Korea in terms of incentive to production, value added, and employment generation.

Table 7.7: Industrial Comparison of Multipliers

	Output Multiplier	Value Added Multiplier	Employment Multiplier
Agriculture, forestry and fishing	1.8745	0.8173	40.5
Mining and quarrying	1.7310	0.8163	8.7
Manufacturing	2.0810	0.5891	10.0
Electricity, gas, steam and water supply	1.4827	0.4520	2.9
Construction	2.1292	0.7494	14.2
Total services	1.7282	0.8286	17.4
(Wholesale and retail trade)	1.6776	0.8653	28.0
(Accommodation and food services)	2.0654	0.7789	31.4
(Transportation)	1.5932	0.5765	12.7
Core copyright industries	2.0021	0.8317	16.8
All industries	1.9548	0.6867	12.4

7.2 Implications

Implications derived from the analysis of the economic contribution of the copyright-based industries to the national economy of the Republic of Korea are summarized as follows:

The ROK core copyright industries' contribution to GDP (3.51%) is far lower than those of the USA (6.44%) and Australia (7.30%). This implies that a strategy to galvanize these industries is required. In particular, music, theatrical production and opera, and motion picture and video, among the core copyright industries, are of a relatively small size and have a low growth rate. Therefore, it is deemed urgently necessary to implement a strategy to nurture these vulnerable sectors.

The annual average growth rate of the copyright-based industries between 2006 and 2009 was 7.3%, which was much higher than that of the GDP (3.2%). This phenomenon takes a more definite form in 2008 and 2009 when the GDP growth rates were relatively low. Accordingly, it is imperative to foster the copyright industries as a buffer during times of economic downturn.

As of 2009, the value added generated by the copyright-based industries was 9.9% of GDP, which was almost the same size of general government (9.8%). It was much bigger than those of construction (6.3%), wholesale and retail trade (7.6%), financial intermediation (6.1%), information and communication (3.9%), and health and social work (4.0%). Considering the size of the copyright-based industries, it is desirable to promote and develop them as key industries of the Republic of Korea.

In terms of the output multiplier, the value-added multiplier and the employment multiplier, the core copyright industries showed higher levels than those of the total services and all industries. This means that the core copyright industries had a bigger impact on creating a positive platform for production, value added, and employment generation. Based on these findings, we surmised that fostering the core copyright industries will translate into higher rates of economic growth and employment.

The Republic of Korea was a net importing country of copyright-related goods and services during the period 2005-2009. The trade deficit in the copyright-related goods and services continued to increase to 6.0 billion US dollars in 2009 from 3.4 billion US dollars in 2005. Since the trade deficit was generated mainly by the goods and services of press and literature, and advertisement, it is necessary that economic policies boost the international competitiveness in these sectors.

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APPENDICES

I. Copyright-Based Industries Data

Table I.1: Data by Group

Output (Nominal, million won)					
Activity	2005	2006	2007	2008	2009
Core copyright industries	64,090,253	70,276,084	73,071,668	79,631,241	86,074,012
Interdependent copyright industries	89,715,869	92,577,538	97,986,942	111,694,774	120,538,120
Partial copyright industries	9,524,608	10,904,976	11,203,827	13,270,759	14,775,102
Non-dedicated support industries	18,107,940	18,734,106	20,987,514	26,081,909	25,967,124
Copyright-based industries	181,438,671	192,492,704	203,249,951	230,678,682	247,354,359
Output (Real, million won)					
Activity	2005	2006	2007	2008	2009
Core copyright industries	64,090,253	69,405,703	70,454,243	74,709,735	79,312,510
Interdependent copyright industries	89,715,869	94,729,086	102,471,060	115,064,186	121,955,003
Partial copyright industries	9,524,608	10,700,628	10,705,180	11,571,752	12,377,768
Non-dedicated support industries	18,107,940	18,490,379	20,377,048	23,913,508	23,347,070
Copyright-based industries	181,438,671	193,325,797	204,007,532	225,259,180	236,992,351
Value Added (Nominal, million won)					
Activity	2005	2006	2007	2008	2009
Core copyright industries	29,345,468	30,644,912	31,811,955	35,574,054	37,434,024
Interdependent copyright industries	33,875,080	36,639,872	41,288,102	47,073,865	50,628,987
Partial copyright industries	4,765,804	5,278,319	5,356,289	6,351,652	6,987,540
Non-dedicated support industries	8,064,564	8,092,105	9,138,215	10,651,079	10,319,133
Copyright-based industries	76,050,916	80,655,208	87,594,560	99,650,651	105,369,684
Value Added (Real, million won)					
Activity	2005	2006	2007	2008	2009
Core copyright industries	29,345,468	30,257,403	30,666,470	33,376,314	34,523,146
Interdependent copyright industries	33,875,080	37,355,827	42,954,080	48,240,508	51,065,913
Partial copyright industries	4,765,804	5,155,324	5,090,994	5,466,527	5,784,847
Non-dedicated support industries	8,064,564	7,997,973	8,876,311	9,829,897	9,314,143
Copyright-based industries	76,050,916	80,766,528	87,587,855	96,913,246	100,688,049
Employment (person)					
Activity	2005	2006	2007	2008	2009
Core copyright industries	608,635	636,886	668,406	654,954	670,244
Interdependent copyright industries	407,971	400,511	392,638	372,358	373,564
Partial copyright industries	133,863	141,521	145,688	155,072	158,453
Non-dedicated support industries	214,554	223,991	232,771	256,798	264,274
Copyright-based	1,365,022	1,402,909	1,439,503	1,439,182	1,466,535

Table I.2: Data by Sector

Output (Nominal, million won)

Activity	2005	2006	2007	2008	2009
Press and literature	13,373,050	13,575,306	14,626,868	15,259,785	15,090,337
Music, theatrical productions and operas	3,221,126	3,444,043	3,855,658	3,964,370	4,049,054
Motion picture and video	1,907,479	2,012,904	1,894,037	1,753,821	1,985,654
Radio and television	8,135,670	9,394,888	9,380,386	9,879,219	10,286,362
Photography	1,398,808	1,526,707	1,677,300	1,802,100	1,978,808
Software and databases	27,952,648	31,712,431	32,023,420	37,782,707	43,419,491
Visual and graphic arts	910,834	1,034,992	1,209,783	1,346,261	1,535,152
Advertising services	7,177,413	7,560,239	8,384,351	7,823,081	7,706,398
Copyright collecting societies	13,225	14,574	19,865	19,897	22,757
Core copyright industries	64,090,253	70,276,084	73,071,668	79,631,241	86,074,012
TV sets, radios and electronic game equipment	60,844,429	60,285,366	64,190,301	76,571,267	84,957,687
Computers and equipment	7,434,380	10,026,910	9,994,704	9,439,222	10,007,866
Musical instruments	396,304	318,832	345,529	359,274	338,726
Photographic and cinematographic instruments	3,877,450	4,418,285	4,691,675	3,741,713	3,842,965
Photocopiers	2,026,207	2,330,462	2,372,269	2,197,087	2,708,422
Blank recording material	1,737,422	1,794,352	1,809,221	2,005,067	2,063,763
Paper	13,399,677	13,403,331	14,583,243	17,381,144	16,618,691
Interdependent copyright industries	89,715,869	92,577,538	97,986,942	111,694,774	120,538,120
Apparel, textiles and footwear	3,058,393	3,527,113	3,403,376	3,696,326	4,052,364
Jewellery and coins	325,989	346,433	319,454	385,126	455,200
Other crafts	32,964	36,578	40,606	40,423	35,911
Furniture	775,351	1,009,500	945,498	971,934	1,050,261
Household goods, china and glass	1,696,079	1,846,566	1,863,077	2,020,746	2,412,753
Wall coverings and carpets	221,685	212,769	229,804	237,555	264,176
Toys and games	101,963	104,159	86,196	92,238	113,784
Architecture, engineering and surveying	3,021,898	3,499,137	3,976,377	5,375,054	5,901,715
Interior design	212,656	222,071	231,485	326,794	348,743
Museums	77,630	100,650	107,955	124,562	140,195
Partial copyright industries	9,524,608	10,904,976	11,203,827	13,270,759	14,775,102
General wholesale and retail trade	5,679,272	5,775,349	6,566,893	7,617,303	8,545,157
General transportation	9,200,489	9,612,744	10,935,979	14,495,462	13,298,281
Internet and telephony	3,228,180	3,346,012	3,484,642	3,969,143	4,123,687
Non-dedicated support industries	18,107,940	18,734,106	20,987,514	26,081,909	25,967,124
Copyright-based industries	181,438,671	192,492,704	203,249,951	230,678,682	247,354,359

(2) Output (Real, million won)

Activity	2005	2006	2007	2008	2009
Press and literature	13,373,050	13,210,070	14,104,744	14,097,662	13,331,523
Music, theatrical productions and operas	3,221,126	3,412,182	3,738,954	3,718,533	3,708,339
Motion picture and video	1,907,479	2,013,856	1,848,479	1,680,409	1,847,244
Radio and television	8,135,670	9,394,888	9,107,171	9,444,760	9,568,709
Photography	1,398,808	1,485,949	1,606,359	1,673,540	1,781,211
Software and databases	27,952,648	31,391,672	30,783,610	35,683,797	40,807,262
Visual and graphic arts	910,834	1,012,331	1,160,863	1,248,346	1,391,176
Advertising services	7,177,413	7,470,592	8,085,199	7,144,366	6,856,226
Copyright collecting societies	13,225	14,163	18,865	18,321	20,821
Core copyright industries	64,090,253	69,405,703	70,454,243	74,709,735	79,312,510
TV sets, radios and electronic game equipment	60,844,429	60,650,995	64,832,300	78,667,369	85,695,158
Computers and equipment	7,434,380	10,032,935	9,980,639	9,368,020	9,677,063

Table I.2: Data by Sector (Continued)

Musical instruments	396,304	315,685	331,911	335,016	296,833
Photographic and cinematographic instruments	3,877,450	5,626,267	7,535,463	6,077,867	6,143,778
Photocopiers	2,026,207	2,869,634	3,538,113	3,302,523	3,957,571
Blank recording material	1,737,422	1,780,675	1,776,644	1,895,227	1,888,504
Paper	13,399,677	13,452,895	14,475,991	15,418,163	14,296,096
Interdependent copyright industries	89,715,869	94,729,086	102,471,060	115,064,186	121,955,003
Apparel, textiles and footwear	3,058,393	3,567,567	3,474,480	3,655,392	3,891,936
Jewellery and coins	325,989	346,331	303,373	324,492	382,974
Other crafts	32,964	36,144	39,538	37,085	31,501
Furniture	775,351	995,600	923,097	944,166	972,768
Household goods, china and glass	1,696,079	1,834,451	1,814,661	1,863,827	2,131,320
Wall coverings and carpets	221,685	211,015	225,290	217,937	235,367
Toys and games	101,963	104,792	85,398	87,736	103,434
Architecture, engineering and surveying	3,021,898	3,291,757	3,522,034	4,044,435	4,209,497
Interior design	212,656	216,654	218,176	288,178	301,160
Museums	77,630	96,316	99,132	108,503	117,811
Partial copyright industries	9,524,608	10,700,628	10,705,180	11,571,752	12,377,768
General wholesale and retail trade	5,679,272	5,851,276	6,619,124	7,076,210	7,669,353
General transportation	9,200,489	9,304,183	10,257,571	12,828,518	11,516,369
Internet and telephony	3,228,180	3,334,920	3,500,352	4,008,779	4,161,348
Non-dedicated support industries	18,107,940	18,490,379	20,377,048	23,913,508	23,347,070
Copyright-based industries	181,438,671	193,325,797	204,007,532	225,259,180	236,992,351
Value Added (Nominal, million won)					
Activity	2005	2006	2007	2008	2009
Press and literature	5,721,188	5,708,016	6,227,659	6,350,308	6,243,928
Music, theatrical productions and operas	1,659,004	1,692,850	1,968,438	1,985,115	2,059,629
Motion picture and video	662,948	739,741	640,232	635,794	612,430
Radio and television	2,983,374	3,528,422	3,454,558	3,679,518	3,770,440
Photography	827,225	893,334	870,421	922,747	1,124,735
Software and databases	13,945,815	14,330,606	14,512,839	17,849,523	19,816,695
Visual and graphic arts	489,045	540,725	555,343	601,206	781,030
Advertising services	3,050,063	3,204,088	3,572,148	3,539,669	3,013,191
Copyright collecting societies	6,806	7,130	10,316	10,173	11,945
Core copyright industries	29,345,468	30,644,912	31,811,955	35,574,054	37,434,024
TV sets, radios and electronic game equipment	23,020,683	24,440,282	28,333,896	33,045,067	37,120,642
Computers and equipment	2,977,192	4,078,394	4,315,673	4,034,525	4,435,736
Musical instruments	180,717	132,931	142,354	154,298	149,568
Photographic and cinematographic instruments	1,284,476	1,384,144	1,645,199	1,301,091	1,419,499
Photocopiers	769,490	860,165	1,001,732	840,972	927,504
Blank recording material	813,433	807,686	779,526	849,766	890,723
Paper	4,829,089	4,936,271	5,069,721	6,848,146	5,685,314
Interdependent copyright industries	33,875,080	36,639,872	41,288,102	47,073,865	50,628,987
Apparel, textiles and footwear	1,390,447	1,544,365	1,539,765	1,680,227	1,836,237
Jewellery and coins	129,376	133,193	135,634	144,834	176,675
Other crafts	13,393	14,770	17,956	17,649	14,917
Furniture	283,908	366,562	340,981	355,163	377,975
Household goods, china and glass	699,814	738,118	792,839	830,622	1,001,862
Wall coverings and carpets	90,652	83,417	91,607	90,457	111,900
Toys and games	43,469	44,121	39,405	40,684	49,098
Architecture, engineering and surveying	1,957,283	2,184,861	2,237,109	2,984,767	3,164,500
Interior design	117,514	119,674	104,932	143,561	180,789

Table I.2: Data by Sector (Continued)

Museums	39,948	49,238	56,061	63,688	73,588
Partial copyright industries	4,765,804	5,278,319	5,356,289	6,351,652	6,987,540
General wholesale and retail trade	2,596,211	2,501,276	2,990,693	3,430,208	3,793,697
General transportation	3,971,731	4,098,631	4,555,452	5,485,224	4,988,027
Internet and telephony	1,496,622	1,492,199	1,592,069	1,735,648	1,537,409
Non-dedicated support industries	8,064,564	8,092,105	9,138,215	10,651,079	10,319,133
Copyright-based industries	76,050,916	80,655,208	87,594,560	99,650,651	105,369,684

Value Added (Real, million won)

Activity	2005	2006	2007	2008	2009
Press and literature	5,721,188	5,554,386	6,005,665	5,869,461	5,519,058
Music, theatrical productions and operas	1,659,000	1,677,435	1,908,680	1,861,105	1,882,745
Motion picture and video	662,948	740,413	627,280	610,216	569,791
Radio and television	2,983,374	3,528,422	3,353,940	3,517,704	3,507,386
Photography	827,225	869,000	833,323	856,517	1,013,816
Software and databases	13,945,815	14,186,021	13,950,184	16,861,844	18,630,410
Visual and graphic arts	489,045	528,703	532,899	557,526	708,237
Advertising services	3,050,063	3,166,095	3,444,695	3,232,574	2,680,775
Copyright collecting societies	6,806	6,929	9,797	9,368	10,929
Core copyright industries	29,345,468	30,257,403	30,666,470	33,376,314	34,523,146
TV sets, radios and electronic game equipment	23,020,683	24,586,815	28,613,067	33,921,515	37,419,624
Computers and equipment	2,977,192	4,080,162	4,308,401	3,997,558	4,289,901
Musical instruments	180,717	131,604	136,839	43,786	131,072
Photographic and cinematographic instruments	1,284,476	1,747,805	2,612,981	2,065,981	2,234,999
Photocopiers	769,490	1,053,710	1,486,425	1,236,412	1,286,489
Blank recording material	813,433	801,342	764,470	800,184	812,501
Paper	4,829,089	4,954,389	5,031,893	6,075,071	4,891,326
Interdependent copyright industries	33,875,080	37,355,827	42,954,080	48,240,080	51,065,913
Apparel, textiles and footwear	1,390,447	1,566,329	1,578,289	1,665,869	1,768,057
Jewellery and coins	129,376	133,048	129,017	125,107	150,068
Other crafts	13,393	14,595	17,484	16,191	13,086
Furniture	283,908	361,653	333,292	344,527	349,573
Household goods, china and glass	699,814	733,268	772,183	765,146	884,234
Wall coverings and carpets	90,652	82,725	89,723	82,960	100,068
Toys and games	43,469	44,461	39,132	38,778	44,669
Architecture, engineering and surveying	1,957,283	2,055,373	1,981,496	2,245,875	2,257,132
Interior design	117,514	116,755	98,899	126,597	156,120
Museums	39,948	47,118	51,479	55,478	61,839
Partial copyright industries	4,765,804	5,155,324	5,090,994	5,466,527	5,784,847
General wholesale and retail trade	2,596,211	2,529,204	3,012,221	3,185,680	3,402,384
General transportation	3,971,731	3,981,503	4,265,840	4,893,841	4,32,748
Internet and telephony	1,496,622	1,487,267	1,598,250	1,750,376	1,59,011
Non-dedicated support industries	8,064,564	7,997,973	8,876,311	9,829,897	9,314,143
Copyright-based industries	76,050,916	80,766,528	87,587,855	96,913,246	100,688,049

Employment (Persons)

Activity	2005	2006	2007	2008	2009
Press and literature	157,967	158,739	165,385	158,213	159,918
Music, theatrical productions and operas	91,973	92,237	102,348	94,094	92,714
Motion picture and video	23,669	23,210	21,750	19,787	19,884
Radio and television	38,366	38,079	38,538	40,651	39,836

Table I.2: Data by Sector (Continued)

Photography	33,891	34,474	35,201	36,439	37,320
Software and databases	209,912	235,677	247,495	243,022	258,426
Visual and graphic arts	18,061	18,882	19,558	20,815	21,626
Advertising services	34,589	35,342	37,841	41,569	40,134
Copyright collecting societies	207	247	291	364	386
Core copyright industries	608,635	636,886	668,406	654,954	670,244
TV sets, radios and electronic game equipment	180,672	190,889	181,618	175,731	177,931
Computers and equipment	86,898	69,878	70,257	60,234	59,984
Musical instruments	5,316	4,910	4,959	4,633	4,526
Photographic and cinematographic instruments	20,729	21,354	20,998	19,502	19,802
Photocopiers	14,785	14,504	15,832	15,057	15,950
Blank recording material	46,066	46,797	46,459	44,674	44,123
Paper	53,505	52,179	52,515	52,527	51,248
Interdependent copyright industries	407,971	400,511	392,638	372,358	373,564
Apparel, textiles and footwear	45,963	48,364	48,216	47,341	48,385
Jewellery and coins	6,821	6,674	6,528	6,344	6,329
Other crafts	1,416	1,497	1,451	1,311	1,320
Furniture	6,791	7,345	7,433	7,377	7,253
Household goods, china and glass	22,425	23,465	23,991	24,722	25,818
Wall coverings and carpets	6,268	6,149	6,119	5,621	5,672
Toys and games	2,257	2,156	2,052	2,013	2,089
Architecture, engineering and surveying	38,571	42,327	46,084	55,205	56,245
Interior design	2,040	2,152	2,264	3,382	3,397
Museums	1,311	1,394	1,550	1,756	1,944
Partial copyright industries	133,863	141,521	145,688	155,072	158,453
General wholesale and retail trade	85,607	93,605	96,507	108,934	114,792
General transportation	120,950	122,111	128,361	138,849	140,538
Internet and telephony	7,997	8,276	7,903	9,015	8,944
Non-dedicated support industries	214,554	223,991	232,771	256,798	264,274
Copyright-based industries	1,365,022	1,402,909	1,439,503	1,439,182	1,466,535

II. Questionnaire on Copyright Factors Survey

Copyright Factor Survey for the Korean Copyright Industries

ID

Respondent	Name		Name of Company	
	Type of Industry		Telephone Number	
	Sales in 2009	() million won	Number of Employees	() persons
	Address			
Interviewer	Name		Date of Interview	
Verification Officer	Name		Verification Findings	

- What are major products of your company?
- How important is copyright in the daily operation of your business?
 Very Significant Significant Slightly Significant Insignificant
- Does your company receive or pay any form of payments for the use of intellectual rights in the form of royalties or other licence fees?
 Yes No (Please proceed to 4)
 - On average, what is the percentage of your company's copyright-related expenditure including royalties and licence fees in annual total expenditure?
() %
 - What do you think is the percentage of your company's revenues generated by copyrights or creative activities?
() %
- What percentage of the workforce in your business is involved in creative activities?
() %

Creative activities include product/service creation and development, for example, 'A jewellery craftsman drawing the designs for his jewellery'.

Thank you very much for your answers.

III. Core Copyright Industries in KSIC Rev.9

Table III.1: Press and Literature

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Authors, writers, translators	9000	Class: 9000 – Creative, arts and entertainment activities	90132	Independent performing artists
	8299	Class: 8299 – Other business support service activities n.e.c. (for translation and interpretation)	73902	Translation and interpretation services
Newspapers	5813	Class: 5813 – Publishing of newspapers, journals and periodicals	58121	Publishing of newspapers
News and feature agencies etc.	6391	Class: 6391 – News agency activities	63910	News agency activities
Magazines/periodicals	5813	Class: 5813 – Publishing of newspapers, journals and periodicals	58122	Publishing of magazines and periodicals
			58123	Publishing of advertising periodicals
Book publishing	5811	Class: 5811 – Book publishing	58111	Publishing of textbooks and study books
			58112	Publishing of cartoons
			58119	Other publishing
Cards, maps, directories and other published material	5812 5819	Class: 5812 – Publishing of directories and mailing lists Class: 5819 – Other publishing activities	58190	Other publishing of prints
Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	1811	Class: 1811 – Printing	18111	Commercial printing by stencil plate and similar plates
			18112	Screen printing
			18119	Other printing
	1812	Class: 1812 – Service activities related to printing	18121	Printing composition services and plate-making
			18122	Bookbinding services
			18129	Other service activities related to printing
Wholesale and retail of press and literature (book stores, newsstands, etc.)	4649	Class: 4649 – Wholesale of other household goods	46453	Wholesale of books, magazines and newspapers
	4761	Class: 4761 – Retail sale of books, newspapers and stationary in specialized stores	47611	Retail sale of books and magazines
			47612	Retail sale of stationery
7729	Class: 7729 – Renting and leasing of other personal and household goods (incl. books)	69291	Book renting	
Libraries	9101	Class: 9101 – Library and archive activities	90211	Library and archive activities

Table III.2: Music, Theatrical Productions, Operas

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Composers, lyricists, arrangers, choreographers, writers, directors, performers and other personnel	9000	Class: 9000 – Creative, arts and entertainment activities	90131	Independent performing artists
			90132	Independent non-performing artists
			90121	Performing arts event promotion and organization
			90122	Public performance and production agencies
	9329	Class: 9329 – Other amusement and recreation activities n.e.c.	90123	Other creative and arts-related services n.e.c.
			91291	Ballroom operation
			91299	Other recreation services n.e.c.
			85612	Recreation education
73901	Managers			
Printing and publishing of music	5920	Class: 5920 – Sound recording and music publishing activities	59201	Publishing of music and other audio
Production/manufacturing of recorded music	1820	Class: 1820 – Reproduction of recorded media	18200	Reproduction of recorded media
Wholesale and retail of recorded music (sale and rental)	4649	Class: 4649 – Wholesale of other household goods (incl. wholesale of recorded video tapes)	46461	Wholesale of musical records and videotapes
	4762	Class: 4762 – Retail sale of music and video recordings in specialized stores	47620	Retail sale of musical records and videos
	7729	Class: 7729 – Renting and leasing of other personal and household goods n.e.c.	69220	Disc and video Tape renting
Performances and allied agencies (bookings, ticket agencies, etc.)	9000	Class: 9000 – Creative, arts and entertainment activities	90110	Operation of public performance facilities
			90191	Performing arts event promotion and organization
			90192	Public performance and production agencies
			90199	Other creative and arts-related services n.e.c.
			91223	Singing room operation

Table III.3: Motion Picture and Video

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Writers, directors, actors	9000	Class: 9000 – Creative, arts and entertainment activities	90131	Independent performing artists
			90132	Independent non-performing artists
Motion picture and video production and distribution	5911	Class: 5911 – Motion picture, video and television programme production activities	59111	General motion picture and video production
			59112	Animated cartoon and video production
			59113	Commercials advertising motion picture and video production
	5912	Class: 5912 – Motion picture, video and television programme post-production activities	59120	Motion Picture, video, broadcasting programme production-related services
	5913	Class: 5913 – Motion picture, video and television programme distribution activities	59130	Motion picture, video, broadcasting programme distribution
			59202	Sound-recording studios
Motion picture exhibition	5914	Class: 5914 – Motion picture projection activities	59141	Motion picture exhibition
			59142	Video exhibition rooms
Video rentals and sales, video on demand	7722	Class: 7722 – Renting of video tapes and disks	69220	Disc and video tape renting
		□	46461	Wholesale of musical records and videos
	4762	Class: 4762 – Retail sale of music and video recordings in specialized stores	47620	Retail sale of musical records and videos
Allied services	1820	Class: 1820 – Reproduction of recorded media	18200	Reproduction of recorded media

Table III.4: Radio and Television

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Television programme production activities (NEW)	5911	Class: 5911 – Motion picture, video and television programme production activities	60221	Broadcasting programme production
	5912	Class: 5912 – Motion picture, video and television programme post-production activities	59120	Motion picture, video, broadcasting programmes' production-related services
	5913	Class: 5913 – Motion picture, video and television programme distribution activities	59130	Motion picture, video, broadcasting programme distribution
National radio and television broadcasting companies	6010	Class: 6010 – Radio broadcasting	60100	Radio broadcasting
	6020	Class: 6020 – Television programming and broadcasting activities	60210	Over-the-air broadcasting
Independent producers	5911	Class: 5911 – Motion picture, video and television programme production activities	59111	General motion picture and video production
			59112	Animated cartoon and video production
			59113	Commercials advertising motion picture and video production
			59114	Broadcasting programme production

Table III.4: Radio and Television (Continued)

Cable television (systems and channels)	6110	Class: 6110 – Wired telecommunications activities	61210	Wired telecommunications
			60222	Cable networks
Satellite television	6130	Class: 6130 – Satellite telecommunications activities	61230	Satellite telecommunications
			60229	Broadcasting via satellite and other broadcasting

Table III.5: Photography

Economic Activity	ISIC Rev. 4 c	Description	KSIC Rev. 9	Description
Studios and commercial photography	9000	□	90132	Independent non-performing artists
	7420	Class: 7420 – Photographic activities	73301	Portrait photography and videotaping of events services
			73302	Commercial photography services
			73303	Photograph processing
Photo agencies and libraries	1812	Class: 1812 – Service activities related to printing	18121	Printing composition services and plate-making
			18122	Bookbinding services
			18129	Other service activities related to printing
	8219	Class: 8219 – Photocopying, document preparation and other specialized office support activities	75911	Document preparation services
			75912	Duplicating services
			75919	Other office support service activities
	8299	Class: 8299 – Other business support service activities n.e.c.		All other business support services n.e.c.
	9101	Class: 9101 – Library and archives activities	90211	Library and archive activities

Table III.6: Software and Databases

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Programming, development and design manufacturing	5820	Class: 5820 – Software publishing	58211	Online and mobile game software development and supply
			58219	Other game software development and supply
			58221	System software development and supply
			58222	Application software development and supply
	6201	Class: 6201 – Computer programming activities	62010	Computer programming services
	6202	Class: 6202 – Computer consultancy and computer facilities management activities	62021	Computer system integration consultancy and establishment services
			62022	Computer facilities management services
	6209	Class: 6209 – Other information technology and computer service activities	62090	Other information technology and computer operation related services

Table III.6: Software and Databases (continued)

Wholesale and retail prepackaged software (business programs, video games, educational programs etc.)	4651	Class: 4651 – Wholesale of computers, computer peripheral equipment and software	46510	Wholesale of computers, computer peripheral equipment and software
	4741	Class: 4741 – Retail sale of computers, peripheral units, software and telecommunications equipment in specialized stores	47311	Retail sale of computers, computer peripheral equipment and software
Database processing and publishing	6311	Class: 6311 – Data processing, hosting and related activities	63111	Data processing
			63112	Hosting and related service activities
			63991	Database activities and online information provision services
	6312	Class: 6312 – Web publishing	63120	Portals and other Internet information media service activities

Table III.7: Visual and Graphic Arts

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Artists	9000	Class: 9000 – Creative, arts and entertainment activities	90132	Independent non-performing artists
Art galleries and other wholesale and retail	9000	Class: 9000 – Creative, arts and entertainment activities	47841	Retail sale of art works and antiques
Picture framing and other allied services	7420	Class: 7420 – Photographic activities	73303	Photograph processing
Graphic design	9000	Class: 9000 – Creative, arts and entertainment activities	73203	Graphic design services
			90199	Other creative and arts-related services n.e.c.
	1812	Class: 1812 – Service activities related to printing	18129	Other service activities related to printing
	8219	Class: 8219 – Photocopying, document preparation and other specialized office support activities	75911	Document preparation services
			75912	Duplicating services
			75919	Other office support service activities
8299	Class: 8299 – Other business support service activities n.e.c.	75992	Exhibition and trade fair organization agencies	

Table III.8: Advertising

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Agencies, buying services	7310	Class: 7310 – Advertising	71310	Media advertising agencies
			71391	Outdoor and exhibition advertising
			71392	Media representatives and media buying agencies
			71393	Advertising preparation
			71399	Other advertising n.e.c.
	7320	Class: 7320 – Market research and public opinion polling	71400	Market research and public opinion polling

Table III.9: Copyright Collecting Societies

Economic Activity	ISIC Rev. 4	Description	KSIC Rev. 9	Description
Copyright collecting societies	9412	Class: 9412 – Activities of professional membership organizations	94120	Professional organizations

