The Economic Contribution of Copyright-Based Industries in Slovenia

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Executive Summary

This is the first study on the economic contribution of copyright-based industries to the Slovenian economy. It was initiated by the Slovenian Intellectual Property Office (SIPO) and financially supported by the World Intellectual Property Organization (WIPO) and the Ministry of Culture of the Republic of Slovenia, and was conducted between February 2009 and November 2009. The main purpose of the study is to quantify the economic contribution of industries based on copyright and related rights to the Slovenian national economy by measuring output, value added, employment and foreign trade. This study follows a methodology developed and proposed by WIPO based on best practices in the field. The main advantage of this methodology is that it allows for international comparability, since the study has already been conducted in more than 20 countries around the world.

It has to be stressed that the aim of the study was neither to measure the extent of illegal activity or piracy, nor to measure the impact of copyright on GDP (i.e. how much higher GDP is because of copyright). Instead, the main tasks were: i) to identify industries that are copyright-based according to WIPO; and ii) to measure their output, value added, employment, and foreign trade. The core of the study is based on official statistical data, but supplementary sources of information, including interviews with representatives of copyright-based industries, were also used. In order to identify relevant changes and trends, all data in this study was collected for the years 2002 and 2007.

The main conclusion based on analyzed statistical data is that copyright-based industries are significant to the Slovenian economy. In 2007 the total contribution of these industries was EUR 4.2 billion in production output, which represents 5.8 percent of national production output. Furthermore, these industries contributed EUR 1.7 billion in value added or 5.1 percent of national GDP. In terms of employment, copyright-based industries generated 54,506 jobs, which represented 6.8 percent of national employment. Our study showed that the productivity of copyright-based industries, measured as value added per employee, was EUR 32,025, which was below the national average of EUR 37,963. The balance of foreign trade of copyright-based industries was negative, meaning that imports were higher than exports, and amounted to EUR 279.1 million. The trend between 2002 and 2007 was mostly positive, but lower than the average for the economy.

Among the copyright-based industries, core industries make the largest economic contribution to the Slovenian economy. In 2007, core industries contributed approximately two thirds of the total contribution of copyright-based industries to GDP. Within core industries, press and literature was the most important in terms of the creation of output, value added and employment; however, software and databases, as a young and growing industry, is rapidly gaining economic importance.

Our findings show that the contribution of copyright-based industries to national GDP is similar to the contributions of public administration and common social services. The contribution is higher than the contributions of education; health and social work; financial intermediation; electricity, gas and water supplies; hotels and restaurants, etc. Compared to the findings of other national studies, the contribution of copyright-based industries to GDP in Slovenia was slightly lower than the average for 21 countries that have conducted a similar WIPO-methodology-based study (5.5 percent).

The core of the study analyzed the direct contribution of copyright-based industries to the Slovenian economy. However, in addition to this direct effect, copyright-based industries also indirectly generate demand for other industries that are linked to copyright-based industries (i.e. copyright-based industries need the products and services of financial, construction, food industries, etc.). To identify and estimate the total contribution of copyright-based industries (i.e. the direct as well as the indirect contribution, operating via backward linkages throughout the economy) on key macroeconomic variables, we applied input-output analysis. Results suggest that the total output impact of copyright-based industries across the economy in 2007 represented around 7 percent of total domestic production, and equated to 66,447 jobs (8.3 percent of total employment in Slovenia). Thus, the total value added that was created in 2007, directly and indirectly linked to copyright-based industries, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP.

The estimated output multiplier of copyright-based industries in Slovenia is 1.57, which means that each EUR 1,000 of copyright-based industries' final-use production will result in EUR 1,570 in total output production throughout the economy. Interestingly, this is comparable to the role of the tourism industry in Slovenia in terms of both the direct and the multiplication effect. Among the four groups of copyright-based industries, core and non-dedicated industries exhibited above-average multiplication effects. Core copyright industries alone have directly and indirectly provided 5 percent of national employment, 5 percent of total national value added, and 4.6 percent of GDP.

Considering the economic weight and results of the international comparison of copyright-based industries established by this study, we believe that copyright-based industries should receive more consideration from economic policies.

1. Introduction

1.1 Background

Copyright protects creativity, which is a source of competitive advantage and one of the key drivers of economic growth. Therefore, it is of vital importance that national governments and business communities become aware of the role of copyright industries in the national economy. Quantifying the contribution of the copyright-based industries provides insight into the extent to which the national economy is dependent on copyright-protected products and services. There have been a number of attempts to define and measure the contribution of copyright-based industries to national economies, the most broadly used approach is the one that has been developed and recommended by WIPO.

Until now, there has been no comprehensive economic analysis focusing exclusively on copyright-based industries in Slovenia. This is the first study on the economic contribution of copyright-based industries to the Slovenian economy. This study was initiated by the Slovenian Intellectual Property Office (SIPO) and financially supported by the World Intellectual Property Organization (WIPO) and the Ministry of Culture of the Republic of Slovenia, and was conducted between February 2009 and November 2009. In addition to financial support, WIPO provided the methodological framework and advice on the contents and scope of the study, which ensured consistency with similar studies in other countries.

It is expected that the quantification of the contribution of copyright-based industries to the national economy will indicate the importance and relevance of copyright-based industries to Slovenia and improve general awareness of the role of copyright and related rights. The decision-makers may include the findings of the study within the future development of national strategies of economic development and competitiveness. Further, it is anticipated that the study will be of use to the industry and the government when evaluating the existing legal framework and its enforcement, planning its future amendments, and facing the challenges of providing adequate protection of copyright and related rights.

1.2 Study objectives

In this study, the authors had the following four main objectives. The first was to quantify the economic contribution of industries based on copyright and related rights to the Slovenian national economy by measuring value added, employment and foreign trade. The second was to analyze selected copyright-based industries of importance to Slovenia, following the WIPO identification and categorization scheme. The third was to compare the results with other surveys carried out using the WIPO methodology, and the fourth was to propose policy and institutional interventions to develop the copyright-based industries in Slovenia.

1.3 Methodology

In recent decades, countries have undertaken studies attempting to evaluate the contribution of copyright and related rights using a plethora of approaches. Because of the inherently complex nature of the topic, these approaches vary substantially. A disadvantage of these studies was that it was difficult to compare them directly. Therefore, WIPO developed a methodology based on best practices in the field and published a methodological guide for evaluating the contribution of copyright-based industries to national economies (Guide on Surveying the Economic Contribution of the Copyright Industries[1]). This study follows the proposed WIPO methodology.

The main advantage of the WIPO methodology is its international comparability, since the study has already been conducted in more than 20 countries around the world. It is also a systematic approach for the definition and analysis of copyright-based industries. However, there are also some limitations to the methodology: for example, it is not able to estimate the value of copyright or the impact[2] of copyright on the economy, but only its contribution, and it does not include illegal activities and piracy.

[1] WIPO Publication Number: 893, ISBN: 978-92-805-1225-0.

[2] Estimating the economic impact of copyright would mean how much bigger the industries would be with copyright (WIPO Guide, 2003, p. 19).

We followed the WIPO guide recommendations and took the following four steps:
1. identification and classification of industries;
2. data collection;
3. data analysis;
4. presentation of results

Within the first step the research team was set up, copyright legislation was reviewed, the copyright chain was analyzed, and ISIC codes' correspondence to national statistical classification was verified. Based on the availability of statistical data, we used the following indicators to measure the economic contribution of copyright-based industries: total output, value added, employment, and foreign-trade data.

Researchers from the National Statistical Office mainly carried out the data collection of the second step, when the industries were classified into four groups as recommended by the WIPO guide. In some of the cases, where identification of the industry group was difficult, we used expert opinions to help us make decisions about allocation rates. All data in this study was collected for the years 2002 and 2007, because the last available data was for 2007. We estimated that a period of at least five years was needed in order to track the relevant changes.

Within the third step we established the copyright factors. In order to define the copyright factors for specific industries we conducted personal interviews based on semi-structured questionnaires. Calculation of the value of selected indicators followed. Finally, input-output analysis was performed.

In the final step the results were analyzed and commented upon. A panel of representatives of the industries was consulted to get additional insight into the relevance of results. The results of the study were compared to the results of previous studies based on the WIPO methodology.

Based on our conclusions, we believe that it would be reasonable to plan further studies following the same methodology in order to observe the future development and the growth or decline of the economic importance of copyright-based industries.

1.4 Research team

Researchers contributing to the study are, firstly, expert economists who come from the academic sphere of the University in Ljubljana: Ljubica Knežević Cvelbar, Ph.D., Assistant Professor in the Faculty of Economics; Mojca Marc, Ph.D., Research and Teaching Assistant in the Faculty of Economics; Peter Rebec, M.Sc., Researcher at the Economic Institute of the Faculty of Law in Ljubljana; and Sonja Šlander Wostner, M.Sc., Research and Teaching Assistant in the Faculty of Economics. Secondly, the researchers included the following people from the Slovenian Statistical Office: Karmen Hren, M.Sc., Head of the National Accounts Sector; and Anže Podnar, BSc., National Accounts Sector. The national consultant appointed by WIPO was Urša Chitrakar, LL.M., Attorney, specializing in copyright and related rights issues and entertainment law.

The research team benefited from the international consultant appointed by WIPO, Mr Željko Topić, Director of the Croatian Intellectual Property Office and the author of the Croatian study on the economic contribution of copyright-based industries. In addition, the researchers were additionally advised by Mr Dimiter Gantchev, the Acting Director of the Creative Industries Division in the World Intellectual Property Organization (WIPO).

1.5 Structure of the study

The study is divided into six chapters: after the introductory chapter, the legal framework is presented in chapter II, followed by a brief review of the economics of copyright in chapter 3. In section 4, the methodology is elaborated, followed by the presentation of the results in chapter 5. The final part of the study contains conclusions and recommendations.

2. Legal Framework

2.1 A Brief History of Copyright Legislation in Slovenia

Historically Slovenia was a part of the Federal Republic of Yugoslavia; therefore, federal legislation regulated copyright and related rights until Slovenia gained its independence in 1991. After Slovenia's declaration of independence in June 1991, the then-enforced Yugoslavian Copyright Law of 1978 was still used in Slovenia. Nevertheless, copyright and related rights gained constitutional importance in Slovenia with the adoption of the Constitution in December 1991, when intellectual property rights were included among human rights and fundamental freedoms. Article 60 of the Slovenian Constitution provides for the protection of copyright and other rights deriving from artistic, scientific, research and invention activities.

The first Slovenian Copyright and Related Rights Act[3] (Copyright Act) was adopted in April 1995. The Copyright Act has so far been amended five times; the most recent amendment was made in 2008. In the past, the most frequent reasons for amendments to Copyright Law have been particular difficulties with the collective management of copyright and related rights and the harmonization of law with EU Directives. Legal provisions relating to the collective management of copyright and related rights have been changed four times and are once again under scrutiny; consequently, it is expected that further changes pertaining to collective management will be made.[4] Most of the other amendments to the Copyright Act were necessary in order to harmonize it with EU directives and other international treaties (i.e. the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty) and to ensure its appropriate implIn addition to the Copyright Act, there are several other acts pertaining to artistic property. The Libraries Act[5] and its implementing regulations prescribe the remuneration rules and conditions for the enforcement of the public lending right. The public lending right, as one of the author's rights, was extracted from the Copyright Act and diminished to the right to equitable remuneration, when the original or a copy of a work is made available for use, for a limited period of time, without direct or indirect economic advantage, and if done through organizations performing such activities as a public service.

Among other relevant legislation related to artistic property, the most relevant are the following acts:
- Act establishing the Public Agency of the Republic of Slovenia for Books[6];
- Public Use of the Slovene Language Act[7];
- Legal Deposit Act[8];
- Act on Enforcing Public Interest in the Field of Culture[9];
- Decree on Self-Employed Persons in the Field of Culture[10];
- Media Act[11];
- Radiotelevision Slovenia Act[12];
- Film Fund of the Republic of Slovenia Act[13]; and
- Conditions for Reproductive Video and Audio Activities Act.[14]

[3] Published in the Official Gazettes of the Republic of Slovenia (OG RS) Nos. 21/95, 9/01, 43/04, 17/06, 139/06 and 68/08.
[4] In April 2009 the Slovenian Intellectual Property Office again invited the people concerned to propose amendments to the Copyright Act; therefore, new amendments are likely to happen soon.
[5] Official Gazette of the Republic of Slovenia Nos. 87/2001 and 96/2002.
[6] Official Gazette of the Republic of Slovenia Nu.: 112/2007.
[7] Official Gazette of the Republic of Slovenia Nu.: 86/2004.
[8] Official Gazette of the Republic of Slovenia Nu.: 69/2006.
[9] Official Gazette of the Republic of Slovenia Nos. 77/2007 and 56/2008.
[10] Official Gazette of the Republic of Slovenia Nos.: 9/2004 and 76/2006.
[11] Official Gazette of the Republic of Slovenia Nu.: 110/2006.
[12] Official Gazette of the Republic of Slovenia Nos. 96/2005, 109/2005, 105/2006, 26/2009 and 31/2009.
[13] Official Gazette of the Republic of Slovenia Nos.: 17/1994, 22/2000 and 59/2001.
[14] Official Gazette of the Republic of Slovenia Nos.: 42/1994, 50/1994, 1/1995 and 69/2006.

2.2 International and EU Copyright and Related Rights Legislation

Slovenia is bound by the following international instruments, which regulate the field of copyright and related rights:

1. Berne Convention for the Protection of Literary and Artistic Works (1886), entered into force by Slovenia as of the date of independence, June 25, 1991;
2. Universal Copyright Convention (1952), entered into force by Slovenia as of November 5, 1992 (by notification of succession);
3. Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (1974), entered into force for Slovenia as of November 3, 1992 by notification of succession;
4. Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms (1971), accessed by Slovenia as of July 9, 1996;
5. Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations – The Rome Convention (1961), ratified by Slovenia on October 9, 1996;
6. World Intellectual Property Organization Copyright Treaty – WCT (1996), ratified by Slovenia on March 6, 2002;
7. World Intellectual Property Organization Performances and Phonograms Treaty – WPPT (1996), ratified by Slovenia on May 20, 2002;
8. TRIPS Agreement (1994), which came into effect on January 1, 1995;
9. Convention establishing the World Intellectual Property Organization – WIPO Convention (1967), entered into force by Slovenia as of the date of independence, June 25, 1991.

The EU Directives harmonizing the copyright and related rights legislation of Slovenia with the *acquis communitaire* are:

1. Council Directive 91/250/EEC of May 14, 1991 on the legal protection of computer programs;
2. Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version);
3. Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission;
4. Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights (codified version);
5. Directive 96/9/EC of the European Parliament and of the Council on the legal protection of databases;
6. Directive 2001/29/EC of the European Parliament and of the Council on the harmonization of certain aspects of copyright and related rights in the information society;
7. Directive 2001/84/EC of the European Parliament and of the Council on the resale right for the benefit of the author of an original work of art;
8. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

2.3 Copyright and Related Rights Act

2.3.1 *Subject of Protection*

The Copyright Act defines protected works as individual intellectual creations in the domain of literature, science and art, which are expressed in any mode. The law does not restrict the types of protected works, but merely lists them as examples, in particular spoken works, written works, musical works, theatrical works, choreographic works, audiovisual works, etc. Therefore, any work can be protected by copyright if it has been individually created by a person (author) in the process of intellectual activity and is expressed in a way that enables (any kind of) perception.

Works that are excluded from copyright protection are:

1. ideas, principles, discoveries;
2. official legislative, administrative and judicial texts; and
3. folk, literary and artistic creations.

2.3.2 *Author*

An author is a natural person who created the work. A legal entity can be the holder of copyright, but is never considered to be the author of the work, even though it commissions the work or employs the author who created the work. A person whose name, pseudonym or artist's mark appears on the work or is indicated at the time of disclosure of the work is presumed to be the author of the work, until proved otherwise. If two or more persons cooperate in the creation of a work so that it constitutes an inseparable whole, they are considered co-authors and enjoy joint copyright in such work.

2.3.3 *Copyright (Types and Scope of Rights)*

Copyright belongs to the author by the mere fact of creation of a work. An author who creates a work does not have to register or publish the work in order to gain copyright protection. The copyright comes into existence automatically as soon as the work is created. Copyright is the indivisible right to a work, from which emanate exclusive personal powers (moral rights), exclusive economic powers (economic rights) and other powers of the author (other rights of the author). Exclusivity of copyright implies that it is absolute in its nature and that it affects everybody, and therefore has an *erga omnes* effect.

Moral rights protect the author's intellectual and personal ties to the work. Moral rights are inalienable and non-transferable and cannot be waived. The Copyright Act acknowledges four moral rights: the right to the first disclosure; the right to the recognition of authorship; the right to the integrity of the work; and the right to withdrawal.

Economic rights protect the author with respect to his economic interests by giving the author the exclusive right to authorize or to prohibit the use of his work or copies of his work. Unless otherwise provided for by the Copyright Act, the use of copyrighted work is only lawful if the author, under the conditions he has set, has assigned the respective economic right. The following economic rights are listed in the Copyright Act:

- the right of reproduction;
- the right of public performance;
- the right of public transmission;
- the right of public communication by phonograms and videograms;
- the right of public presentation;
- the right of broadcasting;
- the right of rebroadcasting;
- the right of secondary broadcasting;
- the right of making available to the public;
- the right of transformation;
- the right of audiovisual adaptation;
- the right of distribution; and
- the rental right

This list is not exhaustive; therefore, the author has as many rights as there are uses of his work. Every new type of use of copyright work generates a new economic right.

Other rights of the author protect the author's interests, which are not typically lucrative or strictly moral, but are still important for the author in relation to the protected work and the possibility of using it. Other rights of the author include the right of access (to the original or to a copy of the work, which is in the possession of another) and of delivery of the original work of fine art or of photographic work for the purpose of an exhibition; the resale right (*droit de suite*); the public lending right; and the right to remuneration for authorized private or internal use (photocopying and sound or visual fixation).

2.3.4 *Transfer of Copyright*

Copyright as a whole cannot be transferred. The author may assign to other persons single economic rights and other rights of the author, either by contract or by another legal transaction recognized by the law. Moral rights are inalienable and as such cannot be assigned to other persons. Any contractual stipulation by which the author assigns either copyright in its entirety or moral rights is considered null and void. The same rule applies to the assignment of economic rights with respect to all the future works of the author and to the

assignment of economic rights with respect to as-yet-unknown means of use of his work. An assignment of single economic rights or other rights of the author may be limited as to the extent (exclusive or non-exclusive assignment), territory, or time. Even though copyright as a whole cannot be transferred, it can be subject to succession. After the author's death, his heirs assume his legal status in relation to the protected works and therefore become the right-holders of the author's economic, moral and other rights.

Copyright is an insubstantial asset and, as such, independent from and compatible with ownership or other property rights in any material object in which the copyright work is embodied. The transfer of single economic rights or other rights of the author with respect to his work does not affect the ownership of the material object in which the work is embodied. Likewise, the transfer of ownership of the material object in which the work is embodied does not affect single economic rights or other rights of the author with respect to his work. However, with the exception of architectural structures, the owner of an original of a work shall not destroy such an original before offering it to the author at the cost of the material (presuming the author has a justifiable interest in its prevention).

2.3.5 *Limitations on Copyright*

Even though copyright is exclusive in its effect, the Copyright Act limits it in some cases for the benefit of other rights and/or in the interests of society. In every such case, the limitation(s) on copyright are only permissible provided that the extent of such exploitation of copyrighted works is limited by the intended purpose, is compatible with fair practice, does not conflict with normal use of the work, and does not unreasonably prejudice the legitimate interests of the author. There are two basic levels of limitations of copyright provided for by the Copyright Act: 1. legal licenses and 2. free use of the work. Legal licenses enable the use of the work without the assignment of a respective economic right, but on payment of equitable remuneration (i.e. the reproduction of a work in textbooks intended for teaching, the reproduction of works for the benefit of disabled people), while free use means that the work may be exploited without the assignment of the respective economic right and without paying any remuneration to the author (i.e. the use of a work in order to enable access to information of a public nature, the use of a work in quotations, the private reproduction of a work, public performance in the form of teaching, and similar).

2.3.6 *Term of Copyright Protection*

Copyright lasts for the life of the author and for 70 years after his death. On the expiration of the term of protection, the work ceases to enjoy copyright protection and moves into the public domain. If the work has been created by several authors (co-authors) the term of protection is calculated from the death of the last surviving co-author. In some cases, however, copyright does not last for the life of the author and 70 years after his death, but runs from the lawful disclosure of the work, for instance in the case of anonymous and pseudonymous works or collective copyright works (i.e. encyclopedias, anthologies).

2.3.7 *Related Rights*

Related rights differ from copyright mainly in the subject matter of protection. While copyright protects individual intellectual creations, related rights provide protection to certain undertakings similar to intellectual creations (like performances) or other efforts (i.e. organization, production or investment) in relation to the production or communication of copyrighted works.

The following six types of rights related to copyright are provided for by the Copyright Act:

1. rights of performers (i.e. actors, singers, musicians, dancers and others), which enable performers to exercise:
   - exclusive economic rights (to fix their live performances, to reproduce, distribute and rent the phonograms or videograms containing their performances, to publicly transmit their live performances, to broadcast their live performances and to make available to the public the phonograms or videograms of their performances);
   - exclusive moral rights (the right to be identified as the performer and the integrity right); and
   - the right to remuneration in cases of public communication of a phonogram and remuneration for (allowed) private and internal use;

2. rights of producers of phonograms, which grant producers of phonograms the exclusive rights to reproduce, transform, distribute, rent, and make available to the public their phonograms as well as the right to remuneration (for public communication and private reproduction of its phonograms);
3. rights of film producers, which provide film producers with the exclusive right to reproduce, distribute, rent and present their videograms to the public and make their videograms available to the public as well as the right to remuneration for (allowed) private and other internal use;
4. rights of broadcasting organizations, enabling broadcasters to exclusively rebroadcast their broadcasts, to secondary broadcast their broadcasts, to fix their broadcasts and reproduce the fixations of their broadcasts, distribute them and make available to the public their broadcasts;
5. rights of publishers, which give the publishers the right to remuneration for reproduction for private or other internal use and give them certain additional legal protection for publications of previously unpublished works or scientific editions in the public domain; and
6. rights of makers of databases who have the exclusive rights to reproduce and distribute copies of their databases, to rent copies of their databases, to make available to the public their databases and to other forms of communication to the public of their databases.

The term of protection of related rights is shorter than the term of protection of copyrighted work and lasts for 50 years (for the rights of performers, the rights of producers of phonograms, the rights of film producers, the rights of broadcasting organizations and the remuneration right of publishers), 25 years (for the publishers of unpublished works in the public domain), 30 years (for the publishers of scientific editions of works in the public domain) or 15 years (for the rights of the makers of databases). The term of protection always lasts from an event, such as the date of the performance or fixation, or the first lawful publication or other communication to the public.

The protection of related rights does not affect in any way the protection of copyright and leaves copyright intact. However, certain relevant provisions of the Copyright Act apply *mutatis mutandis* to related rights, such as provisions concerning elements of copyrighted work, the presumption of authorship, the contents of economic rights and other rights of the author, the relationship between copyright and ownership, limitations on copyright, the beginning and effect of the running term of protection, the transfer of copyright, etc.

2.4 Management and Enforcement of Copyright and Related Rights

2.4.1 *Individual and Collective Management of Copyright and Related Rights*

The author's rights may be managed individually (separately for each protected work) or collectively (for a number of protected woks of several authors at the same time). In most cases authors may choose whether to manage their rights individually or collectively, except in some specific cases. Collective management is compulsory in Slovenia for the following rights: communication to the public of non-theatrical musical and literary works (small rights), resale right (*droit de suite*), private reproduction (beyond the scale allowed by law), and cable retransmission of works. Collective management organizations are obliged by law to manage these rights for their members as well as non-members and therefore do not need to obtain a mandate from the right-holders. To manage any other rights, collecting organizations must enter into an agreement with the authors or right-holders.

Currently, only four collective management organizations are active in Slovenia: 1. SAZAS, which represents composers, authors and publishers in the field of music; 2. ZAMP, which manages the rights of authors of literary and scientific works and their translations; 3. IPF, licensed to manage the rights of performers and producers of phonograms; and 4. SAZOR, which is authorized to administer reprographic rights. Two other organizations have been established and are in the process of obtaining authorization to manage rights for authors and right-holders of audiovisual works.

The Slovenian Intellectual Property Office (SIPO) is the competent authority for granting authorizations to collecting societies. As a rule, only one collecting society is authorized to manage rights for a particular category of works. Due to the absence of organizations that would manage the rights for other categories of work, for instance audiovisual works, theatrical works, works of visual art, and photographs, SIPO is authorized to issue temporary permission for the collective administration of certain rights to legal entities which do not meet the conditions set by the Copyright Act for collecting societies. This is the case with IPF,

which was authorized to manage the right to remuneration for making sound and video fixations for private or other internal use, and SAZAS, which was temporarily permitted to manage the cable retransmission right. If SIPO does not grant permission for the collective administration of rights which by law may only be administered collectively, such rights may be administered individually, however this does not happen in practice.

The non-existence of collective administration organizations in certain fields is a problem specific to Slovenia. Many authors and right-holders are not at all interested in or even aware of the possible advantages of collective management of their rights. Fine artists, for instance photographers and illustrators, have not yet even attempted to start with the collective management of their rights. In reality, in such cases the rights that belong to authors or right-holders according to the provisions of the Copyright Act and the respective EU Directive are not being implemented at all in Slovenia and are therefore merely a lifeless letter of the law.

Collective rights management is obviously one of the most problematic areas of copyright law in Slovenia. Collective management of copyright and related rights has been the subject of four amendments to the existing Copyright Act since its adoption in 1995 and further amendments to collective management provisions are expected to be made soon. Complaints against the existing model of collective management from users as well as from authors (and right-holders) are pouring in. Often, authors refuse the mandate of a collecting society and decide to manage their rights individually instead.

Determining appropriate tariffs for the use of protected works is one of the major issues causing numerous difficulties. According to the Copyright Act, the tariffs are supposed to be negotiated between collecting societies and the representative association of users, and to be included in the agreements they execute. However, this is not the case with remuneration rates for private and other internal reproduction, where the government sets the levies by the Decree on the amounts of remuneration for private and other internal reproduction. Typically, the most common complaint from the users of a protected repertoire is that tariffs set by rights-managing organizations are unjust, unreasonable and inflexible, and that the collecting societies use them in an arbitrary way. Due to such convictions, many users refuse to obtain licenses for the use of repertoire works and to pay the due royalties. Such disagreements between the users of protected works (in particular bars, restaurants, hairdressers, hotels, shopping malls, etc.) often result in court disputes that last several years, during which protected works are being used free of charge or not used at all.

In 1998, several users lodged petitions with the Slovenian Constitutional Court to review the constitutionality of certain Copyright Act provisions on collective rights management. By decision No. U-I-149/98-36, in 2001, the Constitutional Court dismissed all petitions as manifestly unfounded and decided that the allegedly unconstitutional provisions of the Copyright Act and implementing regulations issued by a collective management organization are in compliance with the Slovenian Constitution.

In an effort to solve the ongoing disputes between collecting societies and users of protected works – inefficient and long-lasting negotiations and numerous attempts at a settlement that were repeatedly brought to a standstill – several solutions were eventually proposed. In the beginning the tariffs had to be approved by the Slovenian Intellectual Property Office (SIPO). This rule was abolished in 2004 when it was expected that negotiations between collecting societies and representative associations of users would have a better outcome if the state did not interfere. Instead, mediation was introduced as the recourse mechanism intended to help in resolving the disputes arising from failed negotiations. The amendments to the Copyright Act in 2006 introduced arbitration as a new alternative to dispute resolution between collecting societies and users of their repertoire, but it was deleted from the act several months later, before it could even be implemented. At the same time, the scope of mediation was reduced to the disputes concerning cable retransmission of broadcasts. To this day, mediation has never been used in practice to resolve such disputes. Following the amendments to the Copyright Act made in December 2006, the Copyright Board was introduced and appointed by the Minister of Economy in 2007. The Copyright Board is an independent and impartial authority competent to settle disputes between collecting societies and the representative association of users when they cannot agree on tariffs, or to decide on other issues regarding the use of the collecting society's repertoire. So far, the Copyright Board has dealt with one case (one had been withdrawn due to unpaid taxes) and issued a decision against which both parties had appealed to the Supreme Court; the case is now pending. It is unlikely that the Copyright Board will have any reasonable effect, since within three months of the date of the appointment of the Copyright Board, two members had been replaced by the Minister of Economy and three members consequently resigned.

On the other hand, authors and right-holders complain about the "notorious" non-transparency of the right-management organizations, in particular of the repartition of collected revenues and their general refusal to enable authors and right-holders to allow certain uses of their work under conditions that differ from those set by the management organizations (i.e. the use of works under the conditions of creative commons licenses or the free use of works for non-profit events). The Copyright Act in fact provides for one exception to mandatory collective management in the case where the main performer is at the same time the author or right-holder of all the works that are being performed in public. In such cases, the author is entitled to manage his/her rights individually and the collecting society cannot exercise the right on his/her behalf. Authors as well as venues and some event organizers frequently use this exception, in particular for non-profit concerts and events. Concert organizers very often provide SAZAS (the Slovenian organization that manages the rights of musicians) with a written statement signed by musicians (who are also authors of the music they perform) by which the musicians declare that they want to manage their rights individually instead of collectively. In this way, concert organizers avoid payment of fees prescribed by the collecting society, SAZAS. When asked why they are willing to sign such statements, the musicians say that they never see the money collected by SAZAS. That is why they prefer to negotiate their concert fees directly with concert organizers or venues.

The Copyright Act provides for certain supervising measures for the members of collecting societies as well as for the Slovenian Intellectual Property Office (SIPO) as the competent state authority. In fact, such measures have very little effect, because individual members do not have the knowledge to discover alleged accounting irregularities and demand proper corrections (usually pertaining to repartition). One of the collecting societies even diminished the scope of its members' voting rights by linking such rights to the specific amount of remuneration earned from the use of their work. Consequently, a very small circle of authors (or right-holders) decides on issues crucial for the management of the rights of all members (including the setting of tariffs and rules of repartition of collected revenue).

On the other hand, SIPO does not have proper recourse in the case where a collecting society refuses their request for inspection. Since 2007, every decision by which SIPO demanded corrections of presumed infringements has been challenged by collecting societies at the administrative court, where all such cases are still pending. Even the possibility of withdrawing the authorization issued to a collecting society never seemed to be considered as an option, because under a system where, as a rule, only one collecting society may manage the rights vested in a certain category of works, the authors and right-holders may suffer undesirable consequences. According to the Copyright Act, SIPO also has the power to terminate previously granted authorization and issue such authorization to another society if such a society proves that it could provide more efficient and more economical management and that it could manage a more comprehensive repertoire of protected works than the existing collecting society. However, despite numerous complaints against the allegedly non-transparent operation of a certain collecting society, SIPO was never asked to cancel the existing authorization and grant it to another organization.

2.4.2 *Measures of Legal Protection of Copyright and Related Rights*

2.4.2.1 *Judicial Protection*

A wide range of civil measures is provided to authors and other right-holders in cases of copyright infringement. Civil claims against infringers include: the prohibition of infringement; the recall of infringing goods from the channels of commerce; the removal of the objects of infringement from the channels of commerce; the destruction of infringing goods and means of infringement; compensation for damage and punitive damages (remuneration increased by up to 200%); and monetary satisfaction for non-material damage and provisional measures. Copyright infringement claims all fall under the exclusive jurisdiction of the District Court in Ljubljana. Between 2006 and 2008, 269 cases were filed at the District Court in Ljubljana, of which 100 were decided (or settled) before October 2009. On average it took between five months and thirteen months (in some cases even more) before the court made its final decision on such disputes.

The violation of copyright and related rights is considered a criminal offence against human rights and liberties under the current Slovenian Criminal Code.[15] Even the violation of the moral rights of the author (i.e. the right of paternity or the right of integrity) may be punished by a fine or imprisonment of up to one

[15] Published in the Official Gazettes of the Republic of Slovenia Nos. 55/2008, 66/2008, 39/2009 and 55/2009.

year. The unlawful use of copyright-protected work or copies thereof that results in substantial property benefit may be punished by imprisonment of up to three years or more (eight in the extreme) in cases where the market value of copyrighted works from the offence represents large property benefits. In all such cases, copies of copyright-protected works and the equipment used for reproduction shall be confiscated. The same applies to violations of related rights. According to available official data, between 2006 and 2008 courts in Slovenia found 31 persons guilty of charges for criminal offences related to copyright violations. In 26 cases the accused were sentenced to short-term imprisonment (from min. 1 month to max. 6 months), in 4 cases the accused were punished by pecuniary penalties, and in 1 case only preventive measures were made.

2.4.2.2 *Administrative Protection*

Certain minor violations of copyright and related rights are considered as an offence for which the Copyright Act prescribes monetary fines. The Market Inspectorate is the administrative body under the Ministry of Economy responsible for the surveillance of the implementation of the Copyright Act. The Market Inspectorate may therefore order to remedy the offence within a certain time limit or decide on an infringement and impose a fine in the range of approximately EUR 250.00 to EUR 1,600.00 for each infringement of copyright or related rights, as well as seize the goods which were used or intended for the commission of the offence. The Market Inspectorate initiates the procedure *ex officio*. Moreover, anybody can report alleged infringements anonymously through the market inspection internet site; the Market Inspectorate is obliged to investigate all such reports.

According to its reports, the Market Inspectorate[16] most frequently investigates private companies for proper licensed software, as well as investigating the typical users of music, such as restaurants, bars, hotels, hairdressers and similar establishments, in relation to licenses for playing music on their premises. Other users of copyrighted works are inspected occasionally or following the reports of right-holders. Between 2006 and 2008, out of 2,860 inspected users (bars, restaurants, hairdressers) who play music from CDs or via radios, 470 (16.4 percent) did not have a proper license for public performance. From 396 companies that were investigated, 4,613 computers were inspected, and out of 19,853 computer programs installed on those computers, 1,540 (7.6 percent) were found not to be properly licensed. In addition, 112 copy shops and 8 companies providing clippings (from newspapers and other media) were inspected in 2007. In 22 cases (19.6 percent) the reproduction rights were infringed by copy shops and 97 copies of illegally photocopied books were confiscated. All companies that provide clipping facilities as their major service (4) had inadequate licenses and were ordered to comply with the Copyright Act.

Right-holders who suspect that their rights are or could be infringed by the importation or exportation of goods may also initiate proceedings with the custom authorities (which can also act *ex officio* in cases of infringement of intellectual-property rights). The General Custom Directorate is competent to temporarily detain goods suspected of infringing a certain intellectual property right or confiscate such goods until the final decision of the court is made. If infringement is established by the court's decision, the confiscated goods are destroyed. The proceedings may also be initiated *ex officio* by custom authorities in cases where goods are evidently counterfeit or pirated. Between 2006 and 2008 the custom authorities considered 884 requests, but all of them were related to counterfeit goods, not to copyright infringements.

[16] Available on the webpage of the Market Inspectorate of the Republic of Slovenia: http://www.ti.gov.si/si/dokumenti/

3. Economics of Copyright

The economics of copyright is a special field within the economics of intellectual property, thus much of what is said here addresses other forms of intellectual property besides copyright. By 'intellectual property', economists usually mean intangible property, as opposed to physical property like machines, buildings, and inventories. Allowing for a certain degree of overlapping, intellectual property can be divided into three main groups: industrial property (for example, patents, trademarks, and industrial design); intellectual property that can be protected by copyright; and intellectual property that can neither be protected as industrial property nor be copyrighted – for example, know-how, trade secrets, and other tacit knowledge of production or organization.

From an economic point of view, the first and second groups are similar in their characteristics and implications in terms of the legal protection they enjoy, while the third group is clearly different, since this intellectual property cannot be recorded in accounting statements as legal property, but is nevertheless a source of benefits, and even competitive advantages, for companies. However, most of the economic literature focuses on the first or third group of intellectual property, while there are only some relatively scarce examples of economic analysis of copyright.

In most cases, the economics of copyright is applied to *cultural*, *creative*, or *media* industries; therefore, these are often considered as synonyms for *copyright-based* industries. This is also established by the WIPO Guide (2003, p. 18), noting that some differences between these terms exist – e.g. copyright-based industries is a wider concept than cultural industries – although the delimitation is not always possible. This study focuses on a broad concept of copyright-based industries as defined in the Methodology section.

3.1 Characteristics of Intellectual Property and Copyright

Intellectual property is problematic from an economic point of view because, being a product of mind and intellect, it has a number of characteristics that make market transactions intrinsically much more complicated than for simpler goods. These characteristics lead to "market failures", which are instances when the markets for certain goods do not result in efficient production of these goods. The purpose of copyright is essentially to change some of these characteristics so that intellectual property becomes more like a private physical good and inherent market failures are overcome.

1. To begin with, it is difficult to identify and define intellectual property. Copyright gives a legal framework that facilitates the identification and definition of intellectual property that is expressed as an original work in any medium of expression.

2. Establishment of ownership is more difficult for intellectual property than for physical goods. Copyright gives a set of property rights to the author of intellectual work (or any other copyright-holder) embodied in the works entitled to copyright protection. In this way, the author (or any other copyright-holder) legally becomes the owner of his intellectual work. A necessary condition for copyright to work as intended is that the property rights given to authors of such works are respected and can be enforced.

3. Although intellectual property is obviously valuable to individuals and companies, it is difficult to put a value on it. By attaching property rights to intellectual work, copyright makes intellectual property a tradable good. The value of intellectual property can thus be determined through market transactions; this is still not a simple process, but is at least a possible one.

4. Intellectual property in general, and copyright more specifically, has characteristics similar to public goods that also require special treatment in economic analysis. A public good i) brings benefits to the community, but it is ii) not possible to prevent consumption of such a good by somebody who did not pay for it (i.e. avoid free-riders) and iii) consumption of the good by one person does not diminish the amount of consumption available for others.

   Because of these characteristics, there would be no incentive to produce and trade such goods, so they would either not exist at all or, if they did exist, the quantity of them would be suboptimal. In other words, because of their benefits, people would like to have more of such goods, but since only individuals willing to produce them out of non-economic motives would offer these goods, the available quantity of public goods would be much lower than the demand for them. Copyright enables a correction of the incentive structure and transforms intellectual property into a private good, thus allowing the establishment of markets for copyrighted goods.

5. The means of intellectual product delivery and the intellectual property itself have to be considered separately: books allow us to read novels, CDs and concerts allow us to listen to music, and theatrical performances allow us to see and hear a play. Books, CDs, concerts, and theatrical performances are thus examples of "delivery goods". As Watt (2004) notices, delivery goods are often private and not public like the content they carry; they can wear down while the creation itself cannot, and they can be traded legally downstream. Copyright protection is intended for the content and not the delivery good.

6. Products with high intellectual property input are mostly easily copied, especially with the development of modern technology and the digitalization of such works. Copyright theoretically allows protection against copying, but only if property rights are respected and can be enforced efficiently.

7. The production of products with high intellectual property input usually involves high fixed costs of creation and small marginal costs of reproduction – in the case of digitalization, the distribution of such products also has a small marginal cost – which in circumstances of intensive competition leads to prices set so close to marginal costs that fixed costs of creation cannot be covered; therefore, creators have no economic incentive to create.

3.2 Economic Functions of Copyright: Benefits and Costs

The characteristics and the functioning of copyright described in the above paragraphs give us a starting point for analyzing the economic functions of copyright in more detail.

The most important functions of copyright are to serve as an instrument of establishing ownership of an idea and as an instrument enabling transfer of rights over the protected product. By defining intellectual property and conferring property rights, copyright makes market transactions with copyrighted goods possible. Consequently, the value of copyrighted goods can be established and the authors can appropriate this value in market transactions; the negative effects of externalities of public goods are reduced; authors get market power over their work; and welfare is increased (WIPO Guide, 2003, pp. 20-21).

Effective copyright protection needs to balance a couple of trade-offs (Watt, 2004):

1. The most important of these is the trade-off between production (creation) and consumption (distribution). Since the creation of intellectual property has high fixed costs and can typically be reproduced with very low marginal costs, there is not enough incentive to produce such goods. By introducing some market power over the copyrighted good, creation is promoted, but at the same time this denies access to the good to consumers who are willing to pay a price that is above marginal costs but below copyright "monopoly" price. Effective copyright law tries to seek a balance between access and incentives by designing a system where consumers pay royalty payments to the author, thus covering the fixed costs of creation and giving the author an incentive to engage in creative intellectual work.

2. The trade-off between static and dynamic cumulative effects of copyright also calls for a balanced consideration of these effects by copyright law. The more protection copyright is offered today, the more second-generation creativity – based on copyrighted work, e.g. remakes of old movies or songs – is limited in the future.

3. The trade-off between different dimensions of copyright, like duration, depth and breadth, seeks to find an "optimal" mix of these dimensions. Duration refers to the length of copyright enforcement; depth refers to the aspects that are protected (e.g. only expressions of ideas are protected and never the idea expressed); and breadth refers to acts of copyright infringement. It can be shown analytically that the optimality of a particular solution is not robust, indicating that there will always be dilemmas regarding the proper solution. With copyrights being increasingly valuable, large corporations press for ever stronger, longer, and broader copyright protection, since they gain more from them (Towse, 2006).

4. The trade-off between intellectual property, and copyright, law and anti-trust law is becoming increasingly important, as stronger copyright protection and enforcement leads also to more market power (in the sense of copyright "monopoly"), sometimes even to levels that call for anti-trust regulation. A copyright "monopoly" is somewhat different from an economic monopoly because it only allows access to be excluded for people who are not willing to pay for a particular good; it does not exclude access to all other similar goods (Kitsch, 2000). Often, there is a misunderstanding that "property" and "monopoly" are the same from an economic point of view; in fact, "property" does not give you a "monopoly" over a good – it only allows some consumers to be excluded when desired, but these consumers cannot be prevented from buying similar products (Machlup, 1958).

Copyrights are much more useful for large distribution companies than for artists themselves (Towse, 2006). Artists must rely on distribution companies to market their work; the latter typically take a large share of the profits, while royalty payments to the former typically represent only a small share of revenues. Furthermore, distribution companies decide on the price charged for copyrighted goods, so they are interested in stronger copyright protection that allows them to charge higher prices.

It is common knowledge among cultural economists that a small number of superstars have high royalty earnings, while the vast majority typically earns very little. Research of authors' revenues paid from copyright collecting organizations in Slovenia confirms this stylized fact about the extremely skewed distribution of artists' earnings (Moćnik et al., 2008). This fact clearly shows that economic value of copyright ultimately depends on demand and supply in the market. If the cost of dissemination is too high or demand is too low, copyright has no economic value (WIPO Guide, 2003, p. 22).

Copyright systems are thus not without their faults. Besides criticizing the above-mentioned asymmetric benefits in favor of distributors and not creators, some critiques are based on another economic ground: copying. Watt (2004) suggests a number of reasons why copying could actually be good for consumers and creators: besides higher consumer surplus because of cheaper copies, there are for example lower prices of original products; more jobs in third world countries, where most copies are produced, copying is free advertising for up-and-coming artists; and superstar artists are hit the hardest by copying, but their marginal utility of money is small, so there will only be a minimal effect on their behavior; and network effects.

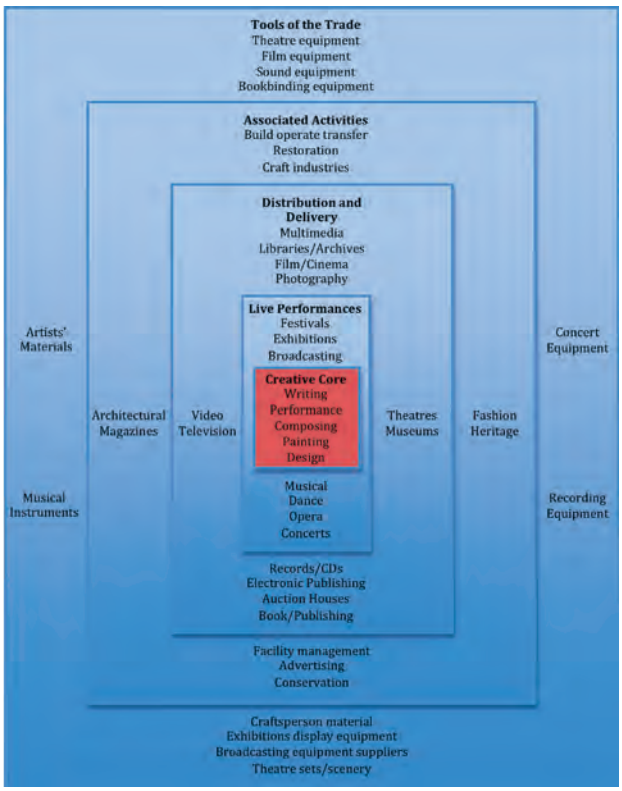
Alternative mechanisms to copyright protection have been put forward, but so far none have been given wide support. Many of them seek to exploit new technologies to reduce the need for copyright, but the solutions are often only technical and fail to reduce the problem of free-riding in real life (Farchy and Rochelandet, 2003). Copyright-protection systems based on the existing rules and institutions therefore remain the principle element of creative intellectual property protection.

3.3 Copyright Effects in the National Economy

The economic effects of copyright are not limited to the process of creating products of intellectual work, but also include further stages like production, distribution and consumption of these products. The WIPO Guide (2003, p. 22) thus recommends that all activities resulting from the multiple effects of copyright on the economy are included in the measurement of the economic contribution of copyright. An example of the multiple effects of copyright is given in Chart 1.

As can be seen from Chart 1, in addition to the core creative copyright activities, the WIPO methodology of measuring copyright's economic contribution also includes performance and distribution, supporting activities for preceding stages, and the manufacture of tools needed in preceding stages. The direct economic contribution of copyright-based industries is analyzed in this study in Sections 5.1 to 5.5.

Chart 1: The Chain of Direct Effects of Copyright in Creative Industries in the National Economy.



Source: WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries, 2003, p. 25.

Besides these direct multiple effects of copyright in the national economy, indirect effects are also present. Indirect effects of copyright in the national economy arise because copyright-based industries need domestic inputs for their products. For example, publishing companies need finance from banks in order to make and sell their products. Banking services are thus a direct input from the banking industry to publishing. Suppose banks require the direct input of construction services to be able to offer their own services – in this case, we would have an indirect input by the construction industry to the publishing industry (via banking). Such indirect effects of copyright-based industries can be estimated from input-output tables. This study investigates these effects in Section 5.7.

The aim of the study is not to estimate the economic impact of copyright-based industries in the sense of explaining how much economic growth would be lost if there was no copyright or how much additional economic growth the introduction of copyright (or a change in the degree of legal protection and enforcement) would entail. Following the WIPO Methodology, the aim of this study is to measure the size of copyright-based industries and to compare the contribution of these industries to GDP with other industries in the national economy and with the contributions of copyright-based industries in other countries.

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4. Methodology of the Study

In order to estimate the economic contribution of the copyright-based industries in Slovenia we used the recognized methodology suggested by WIPO. This methodology was published in the Guide on Surveying the Economic Contribution of the Copyright-Based Industries (2003), which has so far been used in 21 countries worldwide. The use of this methodology is highly beneficial, because it enables direct comparison with other countries and is a systematic and analytical tool for measuring the contribution of the copyright-based industries. Based on experiences from existing studies and expert opinions, the WIPO methodology identifies four groups of industries that have different degrees of copyright dependency:

- Core industries
- Interdependent industries
- Partial industries
- Non-dedicated industries

Each of these groups is clearly indicated and further presented in this Section and the Appendix (Table 25).

In order to carry out the research, we divided the research activities into three main parts:

- Review of literature
- Data collection (secondary and primary data collection)
- Presentation and discussion of the results

The first phase – the literature review – was essential for a better understanding of the copyright industries and their specifics and of the various methods used and results obtained in other international studies. In addition to the review of literature, we did an overview of the legal framework related to copyright in Slovenia, which provided us with a better understanding of the country's specifics. This phase was fundamental in developing and understanding the project requirements.

The second phase was data collection. This phase was divided into several sub-phases. We firstly identified the copyright-based industries (based on the WIPO Guide) and defined the proportions for the division of the industries within the groups (those steps are specified further in this section). After specification of the industries, we collected the secondary data on the following economic indicators:

– output;
– intermediate consumption;
– value added;
– employment; and
– foreign trade

The secondary data were collected for the years 2002 and 2007 and were available from the Statistical Office of the Republic of Slovenia. Besides stated secondary data, we also collected supplementary data in order to improve the understanding of the obtained results. Those data were available from the Statistical Office of the Republic of Slovenia.

Primary data were collected within the qualitative research. We conducted interviews with industry representatives and had group discussions with a panel of experts who evaluated the project's results. The interviews were conducted in August and September 2009 with representatives of companies from the interdependent and partial groups of copyright industries. The aim of the interviews was to obtain the copyright factors for the specific industries within the stated groups. Group discussions were used in order to obtain experts' opinions on the study results. Experts for group discussions were from core copyright industries. The group discussions were conducted during October and November 2009.

The third phase was dedicated to data analysis and presentation. We have summarized our findings in illustrative tables and figures to provide a clear overview. Within this phase we had to deal with the following challenges:

- evaluating and discussing the economic contribution made by industries that belong to the core, partial, interdependent, and non-dedicated groups (or to more than just one group) and the changes that had taken place during the observed period;
- decomposition of industries into subsectors and discussing the results for specific subsectors; and
- international comparison of the results.

The research team all had support from the WIPO expert and the appointed international consultant, which was a great help – their recommendations improved the quality of the project. The application of the WIPO methodology, however, is not just a process of simple copying. The work on the project requires a considerable effort by the national teams on the transfer of internationally applied standards and practices to the specific context of the national economy.

4.1 Identification and Classification of Industries

Copyright-based industries were identified according to the Slovenian Standard Classification of Activities (SKD). It is the obligatory national standard used for recording, collecting, processing, analyzing, mediating and disseminating data, and is important for monitoring the situation and trends in the fields of economy, demography and social services, as well as in the field of the environment and natural resources. It is used to define the activity and to classify business subjects and their units for the needs of official and other administrative data collections (Business Register, VAT Register, Compulsory Social Security Register, etc.) and for the needs of national and international statistics and analyses.

For this study, SKD 2002 was used. It is harmonized with the European Classification of Economic Activities NACE Rev. 1.1. down to the fourth digit. For national purposes, many of these four-digit codes are additionally broken down to the fifth-digit code. These are used for activities that are very important in the structure of the Slovenian economy. By applying the methodology suggested by WIPO, relevant economic activities under each of the four groups were easily identified – core industries, interdependent industries, partial industries and non-dedicated industries.

The process was the same for the codes for the exports and imports of goods, except for the fact that exports and imports of goods are shown according to the activity to which the goods belong and not according to the activity of the enterprise that exported or imported the goods.

4.2 Data Collection

For the purpose of this study, we used secondary and primary data. The secondary data and collection process are presented first, followed by the description of primary data collection and copyright factors.

4.2.1 *Output, Intermediate Consumption and Value Added*

The compilation of output, intermediate consumption and value added of copyright-based industries is based on data provided by the Statistical Office of the Republic of Slovenia. These are compiled in line with the European System of Accounts (ESA 1995), with available data sources, and taking into account the Standard Classification of Activities (SKD). Individual units of the Business Register were allocated to individual copyright-based activities on the basis of official registration in the Business Register. The only exemptions are three copyright collecting organizations (ZAMP, IPF and SAZOR), which were allocated to activity 9112 irrespective of their registration in the Business Register.

Output equals the value of finished goods and performed services from the beginning to the end of the year. Output by activities is valued at basic prices, from which all taxes on products are excluded, but all subsidies on products are included. Output includes market output, output for own final use and other non-market output (output of individual non-market services produced by general government and non-profit institutions serving households and output of collective services produced by general government).

Intermediate consumption is given at purchasers' prices as the value of goods and services which are purchased by an individual producer in order to produce other goods and services. These comprise all goods with a lifetime of up to one year and a value up to EUR 500 if the lifetime is over one year, and services of current repair and maintenance which do not increase the value and lifetime of fixed assets.

Value added is valued at basic prices and equals the output at basic prices, reduced by intermediate consumption at purchasers' prices. Value added at basic prices for non-market producers equals the sum of compensation of employees and other taxes on production, less other subsidies on production, and the gross operating surplus in the amount of consumption of fixed capital.

Gross domestic product equals value added at basic prices by activities, increased by taxes on products, and reduced by subsidies on products. Gross domestic product thus equals the sum of value added at basic prices of all domestic (resident) production units and net taxes on products (taxes less subsidies on products).

The following data sources were used to compile the above-mentioned economic indicators: annual accounting statements of companies, sole proprietors, budgetary units, legal persons of private law and societies; the statistical trade survey; the labor-costs survey; and national accounts data.

Annual accounting statements include businesses in all sectors of the economy, including self-employed. They are available to the statistical office at the individual level. This enabled the compilation of economic indicators at the most detailed level of activities (up to the fifth digit level). The statistical trade survey was used to delimit those activities for which the fifth digit level did not provide the adequate level of detail for the identification of the copyright-based industries. For these activities, the delimitation was based on the structure of sales by products.

The labor costs survey was used as an additional data source for the calculation of the contribution of work based on special types of contracts. Due to specific income tax rules in Slovenia, income (royalties/fees) originating from contracts for a copyrighted work made for hire or other copyright-related contracts (i.e. contracts for the assignment of copyright) is taxed less than any other income, particularly in comparison with taxes and other duties imposed on employment or similar work contracts (and income deriving from them). Because of this, copyright work is often done under these types of contracts instead of employing more people. The value of copyright work done under these types of contracts was included in the study.

All data from data sources were adjusted in the same way as in the regular compilation of official national accounts aggregates (adjustments for non-reporting, misreporting, and conceptual and other adjustments). Results obtained are thus fully in line with and comparable to official national accounts data published by the statistical office. The only exception is illegal activities: they are included in the official gross domestic product but excluded in this study following the instructions of WIPO.

Economic indicators were calculated for all industries identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit (the most detailed) level. The classification used was the Standard Classification of Activities (SKD), which is the Slovenian version of the classification of economic activities in the European Union NACE Rev. 1.

Data sources, which were used for the compilation, refer to business entities (enterprises) and not to kinds of activities units (establishments). The compilation is thus based on the so-called organizational principle. With this principle, all transactions are allocated to an activity in which an enterprise is registered, i.e. to an activity in which it creates the majority of value added (main activity). Apart from the main activity, an enterprise can also perform one or more secondary activities which are different from the main activity. The calculation based on the establishment principle would take this fact into account and would probably be more correct for the delimitation of copyright-based industries. However, as data sources do not allow the calculation by the establishment principle, the organizational principle was used. Consequently, the data for individual copyright-based industries very likely encompass data for non-copyright-based industries. On the other hand, it can be argued that activities that are not included also partly encompass copyright-based activities. It can thus be concluded that the principle chosen for the compilation does not influence the reliability of the results obtained.

4.2.2 *Employment*

The analysis of employment in copyright-based industries is based on data provided by the Statistical Office of the Republic of Slovenia. These are compiled in line with the European System of Accounts (ESA 1995), with available data sources, and taking into account the Standard Classification of Activities (SKD).

Employment includes all employees and self-employed performing production activities inside the production boundary. It covers all permanently employed people according to the domestic concept, and self-employed people together with unpaid family workers in agriculture and self-employed people in other household activities. Employment in national accounts also covers student work and other forms of part-time employment, employment in transport by sea on our ships, diplomatic and consular representatives abroad, enterprises without employment, etc.

The main data source for the employment estimate in national accounts is the Statistical Register of Employment. It covers people who have compulsory social insurance or are employed or self-employed in the territory of the Republic of Slovenia and who are at least 15 years old and not retired. Employment can be temporary or permanent, full time or part time. It includes persons temporarily out of work due to sickness or for any other reason, if social contributions are paid for them. The following categories are not included: persons performing temporary or occasional contract work, students' work, and conscripts. In national accounts the register data are adjusted to be in line with ESA 1995, e.g. students' work, contract work, employment in enterprises without employees and other adjustments are added.

Employment was calculated for all industries identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit (the most detailed) level. Employment from illegal activities was excluded from the results. Similar to the compilation of output, intermediate consumption and value added, the calculation of employment is based on the organizational principle. The estimates of all economic indicators are thus fully comparable and relate to the same observed population.

4.2.3 *Foreign Trade*

Data on exports and imports of goods were obtained from the external trade statistics compiled by the Statistical Office of the Republic of Slovenia. Data for 2002 are based on customs declarations only (Single Administrative Document, SAD). Data for 2007 are based on two data sources: data on trade in goods between EU member states are collected from the statistical survey (Intrastat survey) and data on trade in goods with non-EU member states are based on customs declarations.

The observation unit in foreign-trade statistics is export and import shipment of goods, which is covered according to methodological recommendations. Foreign-trade statistics are monitored according to the special trade system (relaxed definition), which means that, besides regular import and export transactions, inward and outward processing, as well as processing carried out in customs-free trade zones, are included.

Contrary to output, intermediate consumption, value added and employment, exports and imports of goods are shown according to the activity to which the goods belong and not according to the activity of the enterprise which exported or imported the goods. Data thus show exports and imports of goods belonging to activities identified as copyright-based industries. These activities were defined at different levels of classification, from two-digit to five-digit level, as described above for other economic indicators.

4.2.4 *Supplementary Secondary Data*

In addition to the core analytical part of the study – analysis of output, employment, value added, and foreign trade of copyright-based industries in Slovenia – which is a standard and comparable part of all studies based on the WIPO methodology, this study includes an analysis of other data that reflect the trends in selected copyright-based industries in more detail (Section 5.8). The core problem of our research team in this respect was obtaining relevant additional data from the industries. For example, in the music industry, professional organizations or collective management organizations do not provide industry data on sold records. The data sources for this section are thus from the SI-Stat Data Portal[17] and official publications of the Statistical Office of the Republic of Slovenia.

[17] See http:\\www.stat.si

4.2.5 *Copyright Factors and Primary Data*

In the process of measuring the economic contribution of the copyright-based industries, the WIPO methodology refers to the introduction of the copyright factor. The methodology defines it as follows: "The weighting of the portion of a specific industry that can be attributed to copyright or the level of dependence on copyright has been referred to in some of the surveys as the copyright factor. It has to be done in relation to all industries that are not core copyright-based industries where the contribution will be counted as 100%" (WIPO Guide, page 57). In addition to a percentage, the weighting can also be expressed by a number with a value between 0 and 1, where 1 (or 100 percent) is accepted for the core industries. The values of the main economic indicators – value added, number of employees, gross product, etc. – are multiplied by this number (or percentage).

The methodology assigns the copyright factors for each of the copyright-based industries. The industries that belong to the core copyright industries have a copyright factor of 1. However, there is a debate about whether the interdependent group of industries should have a copyright factor of 1. Some of the researches in other countries adopted a copyright factor of 1 for the interdependent industries, because these are closely integrated in the creation, distribution and use of the products of the core copyright industries and a large part of the value added they create is directly related to those industries. The second questionable group in terms of the copyright factor it is assigned is the partial industries. A solution for the group of non-dedicated industries has been found by the recalculation of the economic distribution of the fourth group – non-dedicated support industries. The contribution to copyright for this group is weighted as being equal to the share of the first three groups (core, interdependent and partial) in the national GDP or the GVA. For example: if the industries in the first three groups generate in total 5 percent of GDP, the copyright factor of the non-dedicated industries will be 0.05.

In the case of the Slovenian study, we adopted the following copyright factors:
- core industries: copyright factor 1.
- interdependent and partial industries: the copyright factors used in the Croatian study, which were in turn used in the Hungarian study. We did however collect primary data and corrected the copyright factors for the paper industry and architecture (the primary data collection process and the reasons for that are explained before this section).
- non-dedicated industries: copyright factors calculated as the share of the first three groups in the national GDP, as explained above.

In order to improve the project results, primary data were collected. We conducted two types of qualitative research:
- interviews with representatives of the paper and architecture industries based on the semi-structured questionnaire (Table 26 in the Appendix) and
- group discussions of the project results and overall situation in the copyright-based industries in Slovenia with a panel of industry representatives and experts.

The purpose of conducting the interviews was to get information that would improve the decision on copyright factors for specific industries in the interdependent and partial groups of industries. As a general rule, we applied copyright factors determined in the Croatian WIPO study. The copyright factors from the Croatian study were also used in the Hungarian study and we estimated that those copyright factors were the most appropriate for the Slovenian study. However, due to country specifics, we decided to conduct interviews with experts from the paper industry and architecture, because the copyright factors for those industries in the Croatian and Hungarian studies were not estimated to be relevant for Slovenia. In total, four interviews were conducted in August and September 2009.

In the Croatian and Hungarian studies, the copyright factor assigned for the paper industry, which is part of the interdependent group of industries, was 1.000. The question was: is it appropriate that industries that belong to the group of interdependent industries have the same impact factor as industries in the group of core industries? In the case of Slovenia, the paper industry generated the most output, value added and employment in the group of interdependent industries in absolute and relative numbers. It was, however, questionable whether all economic activities in this industry were related to copyright. In order to resolve this question, we conducted interviews with two experts employed by two large companies from the paper industry in Slovenia (see Table 26 in the Appendix for the semi-structured questionnaire used for

this purpose). The results of interviews showed that in the case of Slovenia a copyright factor of 1.000 for the paper industry was overestimated, and consequently a lower copyright factor of 0.700 was assigned. The results of the interviews showed that the majority – but not all – of the production, value added and employment was related to copyright.

In the case of architecture, the estimations were that the copyright factor of 0.100 from the Croatian and Hungarian studies was underestimated. We conducted the same qualitative survey based on the semi-structured questionnaire with two architecture bureaus, and based on the interviews assigned a higher copyright factor of 0.250 for this industry.

Based on our experience, the approach that was chosen was the most efficient. Quantitative studies would get better results, but they are financially challenging and time consuming. The case of Singapore, which did enormous work, showed that results do not significantly vary from the existing copyright factors used in previous studies. That is why we believe that the best way to improve the methodology and results is to follow the country specifics and based on the interviews with company representatives improve the copyright factors for the "questionable" industries.

The results of the project and estimated economic indicators were the subject of the group discussions on the overall situation in the copyright-related industries in Slovenia with the panel of representatives and experts. The members of the panel were: writers (2), musicians (2), photographers (2), journalists (2), a representative of TV (1), an advertising producer (1), publishers (2) and a representative of the software industry (1). The purpose of the qualitative research was to get information from industry experts that could help the researchers to better understand the situation in the copyright-based industries and comment on the results.

Table 1 presents the copyright factors adopted for each industry.

Table 1: Copyright Factors Adopted in the Slovenian Study

CORE INDUSTRIES		Copyright Factor
PL	Press and literature	1.000
M	Music, theatrical productions, opera	1.000
FV	Film and video	1.000
PH	Photography	1.000
VGA	Visual and graphic arts	1.000
RT	Radio and television	1.000
SD	Software and databases	1.000
AD	Advertising	1.000
PO	Professional organizations	1.000
INTERDEPENDENT INDUSTRIES		
TV	TV sets, radio sets, VCRs, CDs, cassettes, and other equipment	1.000
CE	Computers and equipment	1.000
PHM	Photocopiers	1.000
MI	Musical instruments	1.000
PCI	Photographic and cinematographic instruments	1.000
UNM	Unrecorded media	1.000
PAP	Paper	0.700
PARTIAL INDUSTRIES		
APP	Apparel, textiles, footwear	0.006
JEW	Jewelry and coins	0.200
CRT	Other crafts	0.400
FUR	Furniture	0.050
HHG	Household goods, china and glass	0.005
WALL	Wall coverings and carpets	0.040
TOY	Toys and games	0.400
ARCH	Architecture, engineering, surveying	0.250

Table 1: Copyright Factors Adopted in the Slovenian Study (continued)

INT	Interior design	0.100
MUS	Museums	0.500
NON-DEDICATED INDUSTRIES		
WHRT	General wholesale and retailing	0.0454
TRAN	General transportation	0.0454
TI	Telecommunications and internet	0.0454

4.3 Data Analysis and Presentation

After the collection of secondary and primary data, we analyzed the data and presented the results. The analysis is divided into groups of copyright industries: core, interdependent, partial and non-dedicated. The most detailed analysis was made for the core industries. For all groups, average annual growth rates and productivities were calculated. We also compared the data for 2002 and 2007 and commented on the changes. Within the analysis, we focused on the industries that experienced the most significant changes and tried to discuss them. Finally, results were shown in an international perspective and compared with the results from other countries.

5. Economic Contribution of the Copyright-Based Industries

This chapter presents the research findings based on the WIPO methodology. Section 5.1 gives a total overview of the results; sections 5.2 through 5.5 analyze the direct economic contribution of copyright-based industries by groups; section 5.6 compares the results to other national WIPO studies; section 5.7 presents the total economic contribution of copyright-based industries, including both the direct and indirect contributions; and section 5.8 contains a more in-depth analysis of past developments and trends in selected copyright-based industries.

5.1 Copyright-Based Industries in Slovenia

The results of our study, based on the WIPO methodology, show that the economic contribution of copyright-based industries in Slovenia is certainly not negligible. Overall, it can be said that the direct economic contribution of these industries, as defined in the Methodology section, represents around 5 percent of the national economy and is comparable to the economic contributions of public administration and education. Copyright-based industries were less productive than the average industry in Slovenia and were similar to wholesale and retail trade in this respect. In total, the importance of copyright-based industries did not change dramatically in the period between 2002 and 2007: they employed absolutely and relatively more people in 2007 than in 2002 and produced a relatively smaller share of national output, but their share of value added in national GDP remained the same. The productivity of copyright-based industries increased in this period, but at a much slower rate than in the average Slovenian industry. In the following sections, we present a detailed analysis of the economic contribution of copyright-based industries.

5.1.1 *Overview*

Copyright-based industries directly contributed to the Slovenian economy in 2007 (Table 2):

- EUR 4.2 billion in production output (5.8 percent of national production output);
- EUR 1.7 billion in value added (5.8 percent of national value added and 5.1 percent of national GDP);
- 54,506 jobs (6.8 percent of national employment); and
- the average productivity of copyright-based industries in 2007 – measured in terms of nominal value added per employee – was EUR 32,025.

Table 2: Economic Contribution of Copyright-Based Industries in 2007

Copyright-based industry	Output (EUR mill.)		Value Added (EUR mill.)			Employment		Productivity
	2007	%	2007	% VA	% GDP	2007	%	EUR
Core	2,612.0	3.7%	1,150.3	3.8%	3.3%	36,603	4.6%	31,427
Interdependent	631.0	0.9%	216.0	0.7%	0.6%	6,573	0.8%	32,859
Partial	478.8	0.7%	187.0	0.6%	0.5%	5,745	0.7%	32,540
Non-dedicated	433.3	0.6%	192.3	0.6%	0.6%	5,585	0.7%	34,434
Total copyright-based	4,155.0	5.8%	1,745.5	5.8%	5.1%	54,506	6.8%	32,025
Slovenian economy	71,335.7	100.0%	30,231.2	100.0%	100%	796,333	100.0%	37,963

Table 2 shows the indicators of the economic contribution of copyright-based industries for 2007. The production output is given in millions of EUR and as a percentage of total Slovenian production output. Value added is given in millions of EUR, as a percentage of total national value added (% VA) and also as a percentage of national gross domestic product (% GDP). Employment is given as the number of people employed and as percentages of total Slovenian employment. Productivity is calculated by using current prices (2007) and given in EUR. Other tables in this chapter present data in a similar form.

Since this is the first Slovenian study of copyright-based industries, we have also analyzed data for 2002 to obtain information about the dynamics and trends in these industries (Table 3). By 2007, their economic results had increased in absolute (nominal) terms:

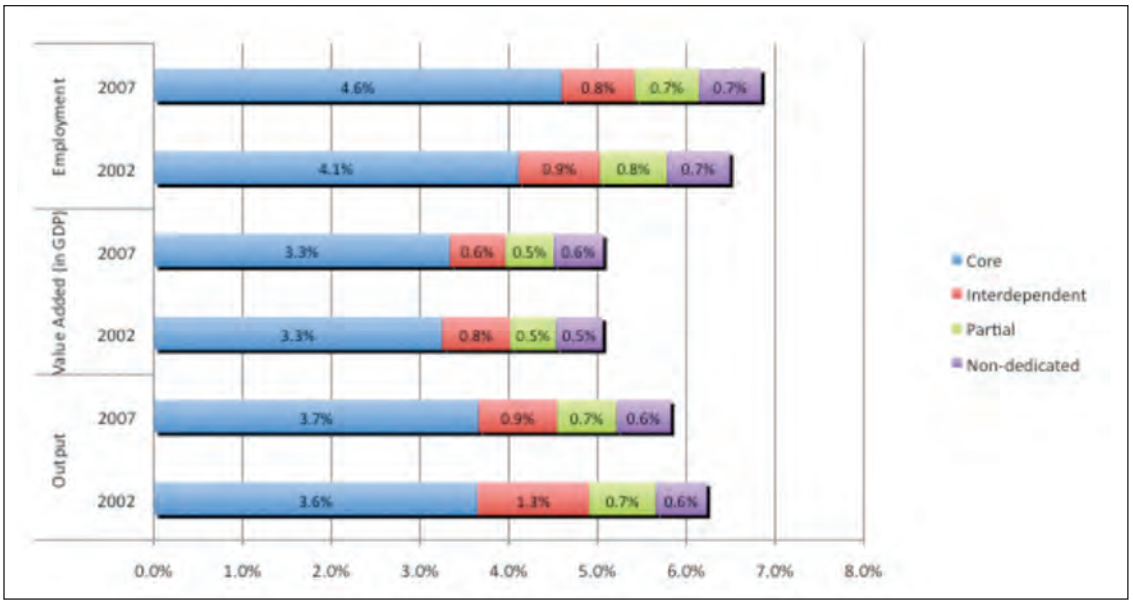
- the output was higher by EUR 1.4 billion (48 percent);
- value added was higher by EUR 576 million (49 percent);
- employment was higher by 5,527 jobs (11 percent);
- and average productivity was higher by EUR 8,142 (34 percent) compared to five years before.

Table 3: Economic Contribution of Copyright-Based Industries in 2002

Copyright-based industry	Output (EUR mill.)		Value Added (EUR mill.)			Employment		Productivity
	2002	%	2002	% VA	% GDP	2002	%	EUR
Core	1,640.4	3.6%	751.8	3.7%	3.3%	31,034	4.1%	24,226
Interdependent	566.4	1.3%	176.9	0.9%	0.8%	6,917	0.9%	25,580
Partial	337.1	0.7%	120.3	0.6%	0.5%	5,698	0.8%	21,118
Non-dedicated	256.9	0.6%	120.7	0.6%	0.5%	5,330	0.7%	22,643
Total copyright-based	2,800.8	6.2%	1,169.8	5.8%	5.1%	48,978	6.5%	23,883
Slovenian economy	44,958.5	100.0%	20,145.9	100.0%	00%	754,735	100.0%	26,693

However, in 2007 copyright-based industries were relatively less important in terms of output than in 2002 (a decrease of 0.4 percentage points, Chart 2), but they employed relatively more people than in 2002 (an increase of 0.3 percentage points). The relative contributions to national value added and to national GDP have remained practically unchanged.

Chart 2: Changes in Economic Contribution of Copyright-Based Industries between 2002 and 2007



The contribution to employment increased mainly because core copyright industries employed absolutely and relatively more people. The drop in output share originated mainly in interdependent, but also in partial industries. Although these industries produced more in absolute terms, the increase was smaller than elsewhere in the Slovenian economy, thus the share of their output in national output dropped. Other economic indicators of the contributions from the four groups of copyright-based industries remained quite stable.

Core copyright industries created 3.7 percent of aggregate output and their value added represented 3.3 percent of GDP in 2007. Compared to 2002, these shares did not change much; on the other hand, the share of employment by core copyright industries increased by 0.5 percentage points and had reached 4.6 percent in 2007. This large increase was mainly the result of higher employment in the software and

database industry. Interdependent industries contributed around 0.9 percent of national employment and output, but only 0.6 percent of GDP in 2007. The shares of interdependent industries have dropped for all economic indicators; most notably, the share of output dropped by 0.4 percentage points. The main reason for this was the negative trend in the paper industry. The contribution of partial industries was overall slightly smaller than the contribution of interdependent industries: in 2007 the former represented 0.7 percent of national employment, 0.5 percent of value added and 0.7 percent of output. Compared to 2002, the contributions to value added and output have remained the same, while the contribution to employment dropped by 1 percentage point. Also, the contribution of non-dedicated industries to national employment remained the same, at 0.7 percent. The contribution of these industries to value added and output was smaller and in general stable at around 0.6 percent of national categories.

To estimate dynamics in the period analyzed, real growth rates for output, value added, and productivity were calculated by deflating the nominal values in 2007 with the GDP deflator[18] for the period 2002 to 2007 (Table 4). Annual real growth rates for copyright-based industries were thus as follows:

- output increased annually on average by 3.1 percent in real terms;
- value added increased annually on average by 3.2 percent in real terms;
- employment increased annually on average by 2.2 percent; and
- productivity increased annually on average by 1 percent in real terms.

Table 4: Average Annual Real Growth Rates for Copyright-Based Industries in 2002 – 2007

Copyright-based industry	Average Annual Real Growth, 2002 – 2007			
	Output	Value Added	Employment	Productivity
Core	4.6%	3.7%	3.4%	0.4%
Interdependent	-2.6%	-0.8%	-1.0%	0.2%
Partial	2.2%	4.1%	0.2%	3.9%
Non-dedicated	5.8%	4.6%	0.9%	3.6%
Total copyright-based	3.1%	3.2%	2.2%	1.0%
Slovenian economy	4.5%	3.3%	1.1%	2.2%

Note: GDP deflator for 2002 – 2007 is 127.3.

In the period 2002 to 2007, value added in the copyright-based industries increased at a similar rate to value added in the Slovenian economy as a whole. At the same time, the output of copyright-based industries increased at a lower rate than the total economy. This indicates that there was a structural change in the activity of copyright-based industries in this period: industries that create higher value-added goods have expanded more and became economically more important, while more voluminous, mature industries producing low value-added goods grew weaker. The highest real growth rates for output and value added were for core and non-dedicated industries: output increased by 4.6 percent and 5.8 percent while value added increased by 3.7 percent and 4.6 percent respectively. Interdependent industries, however, experienced in real terms a drop in output by 2.6 percent and in value added by 0.8 percent. As further analysis shows, the main propulsive core copyright industries are software and databases and advertising, while the largest mature interdependent industry is the paper industry.

The productivity of copyright-based industries increased on average by 1 percent per year, which is less than half of the productivity growth rate of the total Slovenian economy. Among the four groups of industries, the productivity of core and interdependent industries increased only slightly (on average by 0.4 and 0.2 percent per year, respectively), while partial and non-dedicated industries experienced on average a 3.9 percent and a 3.6 percent annual increase respectively, which was more than the average rate in the Slovenian economy.

5.1.2 *Distribution of Copyright-Based Industries*

Overall, we can see that the importance of core copyright industries, which were already the most important group of copyright-based industries in 2002, increased to the detriment of interdependent industries, while the importance of partial and non-dedicated industries remained virtually unchanged.

[18] GDP deflator is the implicit price deflator for the GDP, calculated as the ratio between real and nominal GDP x 100, which measures the price level change in the economy.

Within total copyright-based industries, the economic contribution of core copyright industries is the highest, increasing from 2002 to 2007 according to all three economic indicators. In 2007, these industries overall contributed almost two thirds of the total economic performance of copyright-based industries (Chart 3). Five years before, the contribution of core copyright industries was smaller and closer to 60 percent. In both years, the contribution to total copyright-based output was slightly smaller than the contribution to value added and employment.

Chart 3: Distribution of Economic Contribution of Copyright-Based Industries in 2002 and 2007

Interdependent industries, however, have reduced their relative contribution to total employment and value added by roughly 2.5 percentage points and to output by 5 percentage points. In 2002, these industries represented 14.1 percent of employment and 15.1 percent of value added, but this share decreased to around 12 percent in 2007 for both indicators. Interdependent industries had a relatively larger contribution to output than to other indicators of economic performance. The share of those industries in total copyright-based industries dropped from 20.2 percent in 2002 to only 15.2 percent in 2007.

Partial and non-dedicated industries had more stable contributions. Overall, we can say that partial industries represent around 11 percent and non-dedicated industries around 10 percent of the total economic contribution of copyright-based industries.

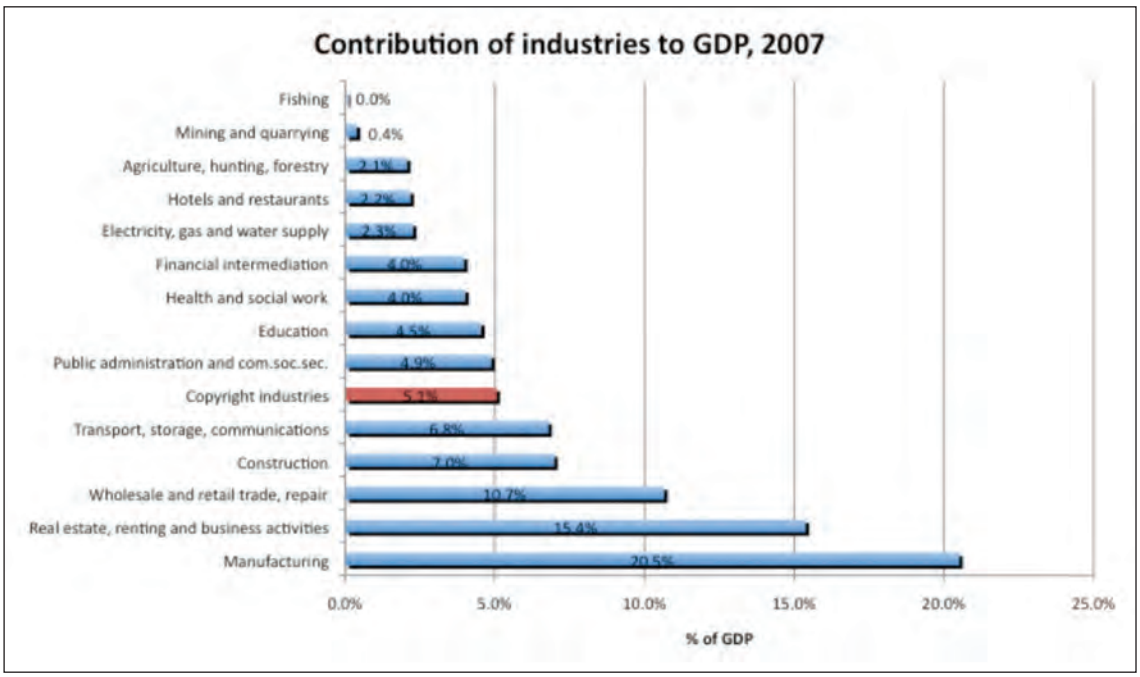
5.1.3 *Industry Comparison*

The economic importance of copyright-based industries is best understood by comparing their contribution to national aggregates to the contributions made by other industries. Activities selected for comparison were chosen based on data readily available from the Statistical Office of the Republic of Slovenia. We were able to compare the share of value added in GDP, the share of national employment, and productivity, calculated as value added per employee.[19]

Based on the comparison of value added in GDP, we can say that the contribution of copyright-based industries – 5.1 percent, obtained by using the WIPO methodology – is similar to the contributions of public administration (4.9 percent) and education (4.5 percent), and close to health and social work (4 percent) and financial intermediation (4 percent) (Chart 4). Copyright-based industries contributed more to GDP than fishing; mining; agriculture; hotels and restaurants; and electricity, gas and water supply.

[19] We must notify the reader that the data aggregation for other industries is based on allocation of enterprises according to an activity in which an enterprise is registered, i.e. to an activity in which it creates the majority of value added (main activity). Data aggregation for copyright-based industries is based on the WIPO methodology, which follows the chain of direct effects of core creative activities in the total economy. Since these concepts are different, the comparisons should be seen only as illustrations of the relative position of copyright-based industries.

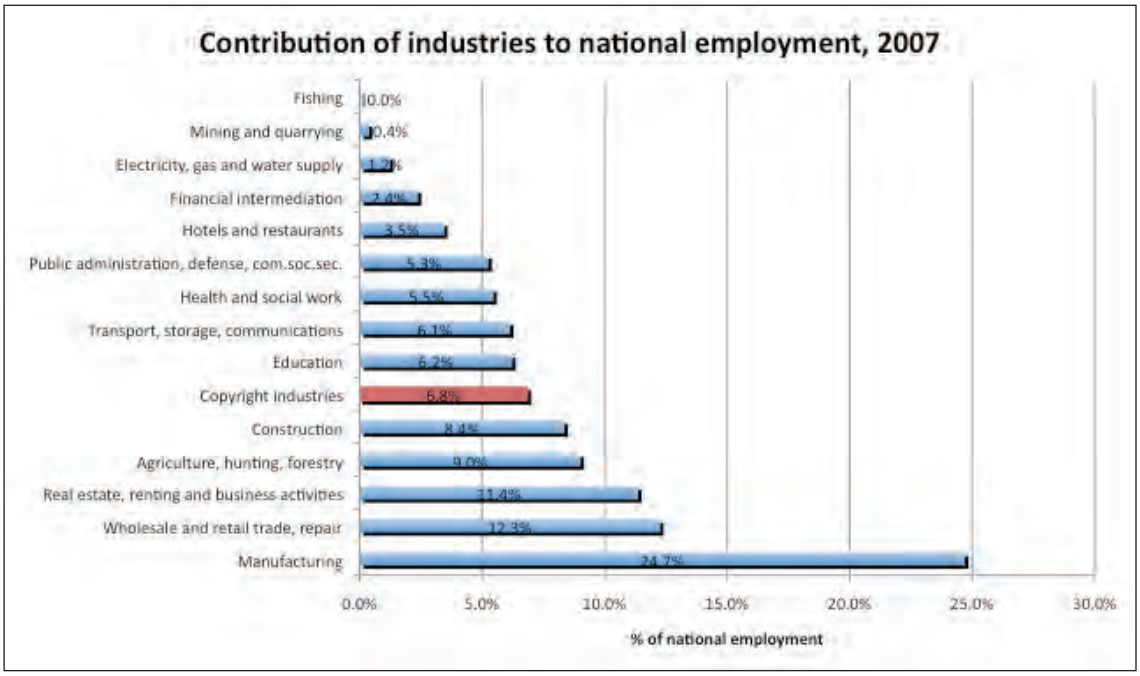
Chart 4: Comparison of Contributions Based on % of Value Added in GDP, 2007



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

When employment is used as an indicator of economic performance, we can see that copyright-based industries enjoyed a similar share of employment (6.8 percent) as education (6.2 percent); transport, storage and communication (6.1 percent); health and social work (5.5 percent); and public administration (5.3 percent) (Chart 5). Copyright-based industries employed more people than fishing; mining; electricity, gas and water supply; financial intermediation; and hotels and restaurants.

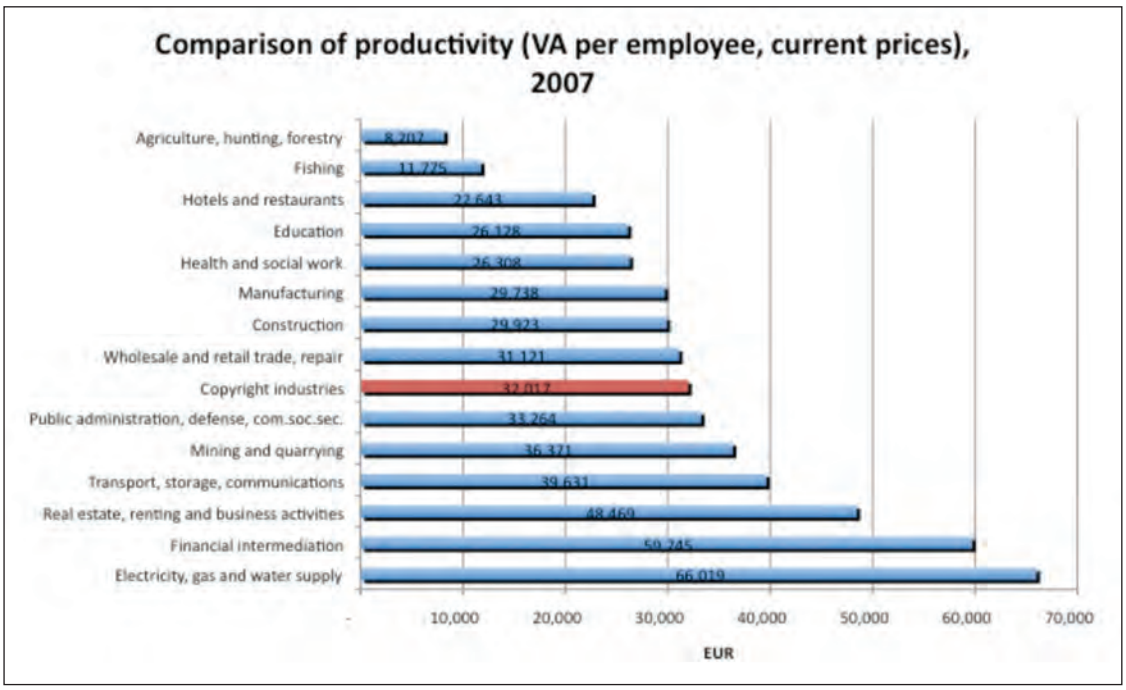
Chart 5: Comparison of Contributions Based on % of Employment in National Employment, 2007



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

In 2007, copyright-based industries had a similar productivity (EUR 32,017 per employee) to public administration (EUR 33,264 per employee); wholesale and retail trade (EUR 31,121 per employee); construction (EUR 29,923 per employee); and manufacturing (EUR 29,738 per employee) (Chart 6).

Chart 6: Comparison of Productivity Measured in Terms of Nominal VA per Employee, 2007



Source: Statistical Office of the Republic of Slovenia and calculations from this study.

Industries that were much less productive than copyright-based industries included agriculture; fishing; hotels and restaurants; education; and health and social work.

5.1.4 *Foreign Trade*

The foreign-trade balance of copyright-based industries in 2007 was negative, meaning that imports in copyright-based industries were higher than exports.

Total imports in copyright-based industries in 2007 amounted to EUR 1,018.8 million. In terms of imports, the most important group of industries was the interdependent industries. This group generated 87 percent of all copyright-based industries' imports. Core industries created 7.1 percent of all copyright-based industries' imports, while partial industries generated 6 percent.

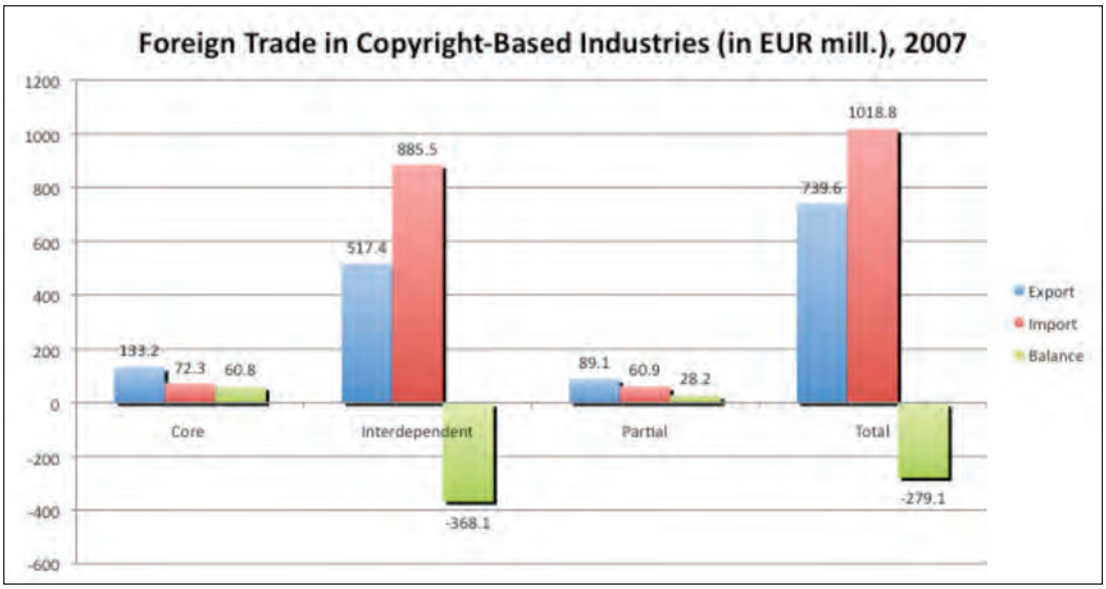
Total exports in copyright-based industries in 2007 amounted to EUR 739.6 million. Interdependent industries generated 70 percent of all copyright-based industries' exports, core industries generated 18 percent and partial industries generated 12 percent (Table 5).

Table 5: Foreign Trade of Copyright-Based Industries in 2007

Copyright-based industry	Imports 2007 (EUR mill.)		Exports 2007 (EUR mill.)	
	2007	%	2007	%
Core	72.3	7.1%	133.2	18.0%
Interdependent	885.5	86.9%	517.4	70.0%
Partial	60.9	6.0%	89.1	12.0%
Non-dedicated	0.0	0.0%	0.0	0.0%
Total copyright-based	1,018.8	100.0%	739.6	100.0%

The trade balances for core, interdependent, partial and total copyright-based industries are presented in Chart 7.

Chart 7: Foreign Trade and Balance in Copyright-Based Industries in 2007



As we can see, we have a trade surplus in the group of core industries, meaning that exports in the group of core industries were higher than imports. The surplus in 2007 in the group of core industries was EUR 60.8 million. In the group of interdependent industries in 2007 we recorded a trade deficit, meaning that imports were higher than exports. The deficit was EUR 368.1 million. In the group of partial industries, exports were higher than imports and the trade balance was positive and amounted to EUR 28.2 million in 2007.

In total, due to the high deficit in the group of interdependent industries, the copyright-based industries' trade balance was in deficit in 2007, meaning that in Slovenia imports of copyright-based goods were higher than exports of those goods. The total deficit in 2007 was EUR 279.1 million.

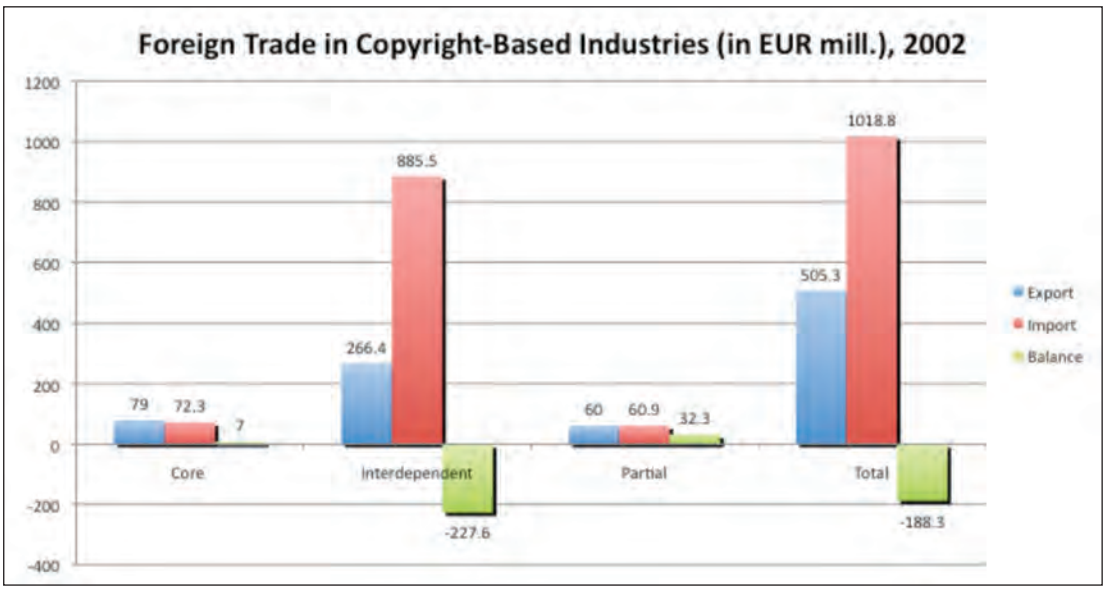
The data on foreign-trade statistics for copyright-based industries in 2002 are presented in Table 6. Total imports in copyright-based industries in 2002 amounted to EUR 693.6 million, while total exports amounted to EUR 505.3 million. The situation in 2002 was similar to that in 2007; the most important group of industries in terms of imports and exports was the interdependent industries.

Table 6: Foreign Trade of Copyright-Based Industries in 2002

Copyright-based industry	Imports 2002 (EUR mill.)		Exports 2002 (EUR mill.)	
	2002	%	2002	%
Core	72.0	10.4%	79.0	15.6%
Interdependent	594.0	85.6%	366.4	72.5%
Partial	27.7	4.0%	60.0	11.9%
Non-dedicated	0.0	0.0%	0.0	0.0%
Total copyright-based	693.6	100.0%	505.3	100.0%

The trade balance in copyright-based industries in 2002 was negative and amounted to EUR 188.3 million. A slight trade surplus was recorded in the group of core and partial industries, while a substantial deficit was present in the interdependent group of industries. The trade balance for copyright-based industries in 2002 is presented in Chart 8.

Chart 8: Foreign Trade and Balance in Copyright-Based Industries in 2002



Since most of the import and export activities were generated by the interdependent group of industries, we examined this group further in order to find an explanation for the trade-balance deficit that was generated by copyright-based industries. The reason for the negative balance in 2007 was the high volume of imports in the following industries:

1. TV sets, radio sets, VCRs, CDs, cassettes and other equipment. Exports in this industry in 2007 were EUR 86 million, imports were EUR 272 million, and so the deficit was EUR 185.8 million.
2. Computers and equipment. Exports in this industry in 2007 were EUR 62.5 million, while imports were EUR 267 million, and so the deficit was EUR 204.5 million.

Slovenian producers from those industries do not have competitive advantages in comparison to the companies from USA, China, Korea, etc., where most imports come from, and we do not expect that this situation will improve in the coming years.

5.2 Core Copyright Industries

Core copyright industries include those industries that are most directly engaged in the "creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sale of works and other protected matter" (WIPO Guide, p. 29). These industries are mainly related to different fields of culture, but also to media, advertising and software, where copyright-protected content is also large. All industries in this group are given a copyright factor of 1. More specifically, core copyright industries are:

- Press and literature
- Music, theatrical productions and opera
- Film and video
- Photography
- Visual and graphic arts
- Radio and television
- Software and databases
- Advertising
- Copyright collecting organizations

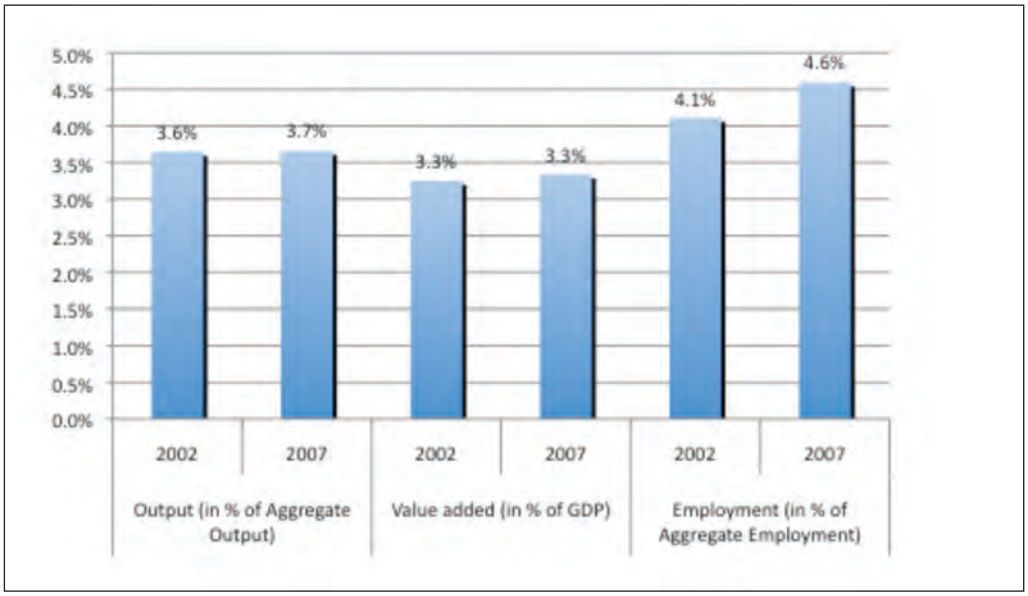
Table 25 in the Appendix gives an overview of industries included in this group by their statistical codes. Mixed industries were divided by using trade statistics data, by inspecting data at lower-level class codes or individual company level (where possible), or by applying expert opinion. In the case of copyright collecting organizations, data was checked at individual entity level to determine the proper ratio, reflecting only the contributions of organizations involved in copyright management.

5.2.1 *Overview*

The economic contribution of core copyright industries in 2002 and 2007 was in general between 3.3 to 4.6 percent of the entire national economic performance and it is summarized in Chart 9:

- these industries generated an output of EUR 2.6 billion in 2007 and they accounted for 3.7 percent of aggregate output. Compared to 2002, the contribution to aggregate output increased by 0.1 percentage point;
- the value added of core copyright industries was EUR 1.2 billion in 2007, which represented 3.3 percent of GDP. Compared to 2002, its contribution to GDP did not change significantly;
- core copyright industries also employed many more people in 2007 than in 2002. In 2007, 36,603 people were employed in these industries, which accounted for 4.6 percent of aggregate employment. This was 0.5 percentage points more than in 2002.

Chart 9: Relative Size of Core Copyright Industries in 2002 and 2007



The contribution of core copyright industries to aggregate employment is higher than its contribution to aggregate value added or output. This means that the productivity of core copyright industries is below the productivity of the average Slovenian industry. Because employment in core copyright industries increased less than output (a 4.6 percent annual real increase) and value added (a 3.7 percent annual real increase), the productivity of these industries increased slightly by 0.4 percent per year (Table 4).

5.2.2 *Output*

Based on output, core copyright industries can be divided into three groups, based on their sizes. In the first group we find the three most important core copyright industries, which were in both years (in descending order):

- Press and literature;
- Software and databases; and
- Advertising.

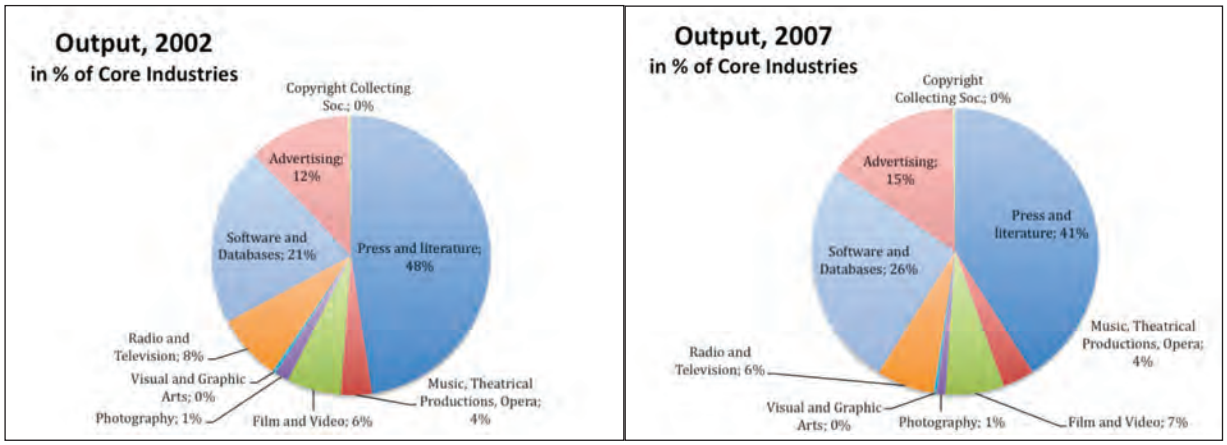
Table 7: Detailed Output of Core Copyright Industries

Core	Output (mill. EUR)						
	2002	% of total copyright-based	% of core	2007	% of total copyright-based	% of core	Average annual real growth
Press and literature	780.7	27.9%	47.6%	1,068.9	25.7%	40.9%	1.5%
Music, theatrical productions, opera	59.0	2.1%	3.6%	93.1	2.2%	3.6%	4.4%
Film and video	103.5	3.7%	6.3%	172.5	4.2%	6.6%	5.5%
Photography	26.0	0.9%	1.6%	25.1	0.6%	1.0%	-5.4%
Visual and graphic arts	7.3	0.3%	0.4%	9.4	0.2%	0.4%	0.4%
Radio and television	125.4	4.5%	7.7%	170.7	4.1%	6.5%	1.3%
Software and databases	337.9	12.1%	20.6%	669.8	16.1%	25.6%	9.3%
Advertising	195.2	7.0%	11.9%	394.3	9.5%	15.1%	9.7%
Copyright collecting soc.	5.5	0.2%	0.3%	8.1	0.2%	0.3%	3.1%
Total core industries	1,640.4	58.6%	100.0%	2,612.0	62.9%	100.0%	4.6%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

In 2002, they jointly generated EUR 1.3 billion in terms of output, which accounted for 80.1 percent of core copyright industry output and 47 percent of total copyright-based industries' output (Table 7). In 2007, the contribution of these three industries increased absolutely and relatively: they generated EUR 2.1 billion in output, which accounted for 81.7 percent of total core industries' output and 51.3 percent of total copyright-based industries' output.

Press and literature was the most important industry in both years. In 2007, when its output was EUR 1,069 million, it represented a quarter of total copyright-based industries' output and 41 percent of core copyright industries' output. Although its output rose on average by 1.5 percent per year in this period (in real terms), its relative importance has decreased since 2002, when it represented 47.6 percent of core copyright industries' output (Chart 10).

Chart 10: Output Structure of Core Copyright Industries



With EUR 669.8 million in output in 2007, software and databases was the second most important industry. Its output increased on average by 9.3 percent per year (in real terms) in this period and its relative importance increased from 20.6 percent to 25.6 percent of core copyright industries' output. Unlike most other core copyright industries, which are typically limited to the Slovenian-speaking market, this industry also expanded internationally, focusing mainly, but not exclusively, on South-Eastern Europe.

Advertising was third, with EUR 394.3 million or 15.1 percent of core copyright industries' output. Compared to 2002, its output increased on average by 9.7 percent per year and its relative contribution increased by more than 3 percentage points.

The next group of core copyright industries is formed by core industries of medium importance for Slovenian copyright-based industries: film and video; radio and television; and music, theatrical productions, and opera. Together, these industries created EUR 287.9 million of output in 2002 and increased their production to EUR 436.3 million by 2007. Although the total share of these industries in the output of core copyright industries dropped by 0.8 percentage points (from 17.5 to 16.7 percent), their share in total copyright-based industries slightly increased (from 10.3 to 10.5 percent).

Other remaining industries (photography; visual and graphic arts; and copyright collecting organizations) had a very small contribution in both years. In 2007, they generated together EUR 42.7 million, which represented 1.6 percent of core copyright industries' output. The share of these industries decreased from 2002, when it was 2.4 percent.

5.2.3 *Value Added*

When value added is used as a measure of economic performance, the three most important industries are (in descending order):

- Press and literature;
- Software and databases;
- Radio and television.

Their combined value added in 2007 was EUR 932 million and represented 2.7 percent of GDP (Table 8). Within core copyright industries' value added, these three industries generated around 81 percent in both years. However, there was a large gap between the top two most important industries and radio and television.

Table 8: Detailed Value Added of Core Copyright Industries

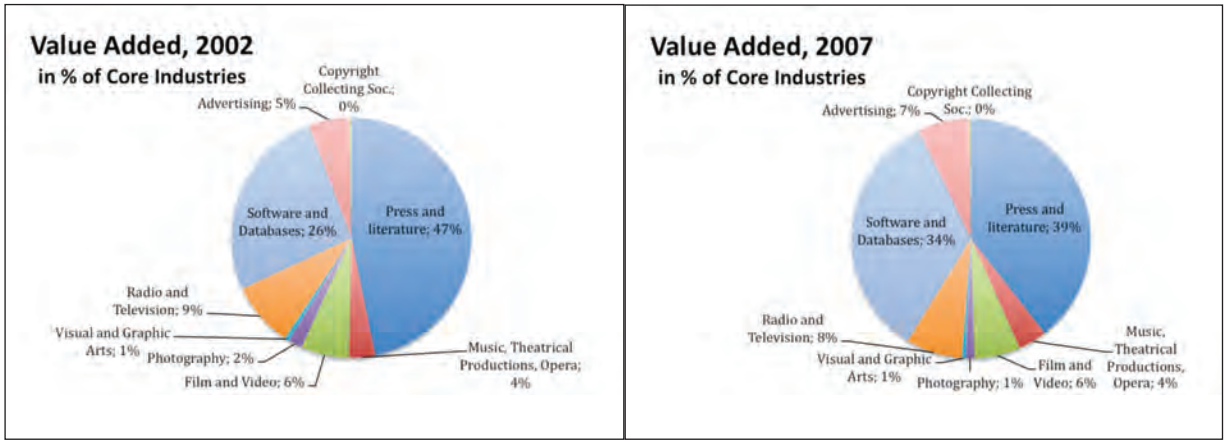
Core	Value Added (mill. EUR)								
	2002	% of total copyright-based	% of core	% of GDP	2007	% of total copyright-based	% of core	% of GDP	Average annual real growth
Press and literature	351.9	30.1%	46.8%	1.5%	454.0	26.0%	39.5%	1.3%	0.3%
Music, theatrical productions, opera	26.6	2.3%	3.5%	0.1%	44.3	2.5%	3.8%	0.1%	5.5%
Film and video	48.6	4.2%	6.5%	0.2%	71.5	4.1%	6.2%	0.2%	2.9%
Photography	14.1	1.2%	1.9%	0.1%	13.8	0.8%	1.2%	0.0%	-5.2%
Visual and graphic arts	4.8	0.4%	0.6%	0.0%	5.9	0.3%	0.5%	0.0%	-0.8%
Radio and television	65.5	5.6%	8.7%	0.3%	87.4	5.0%	7.6%	0.3%	0.9%
Software and databases	196.7	16.8%	26.2%	0.9%	390.6	22.4%	34.0%	1.1%	9.3%
Advertising	41.0	3.5%	5.5%	0.2%	79.2	4.5%	6.9%	0.2%	8.7%
Copyright collecting soc.	2.5	0.2%	0.3%	0.0%	3.6	0.2%	0.3%	0.0%	2.4%
Total core industries	751.8	64.3%	100.0%	3.3%	1,150.3	65.9%	100.0%	3.3%	3.7%
Total copyright-based industries	1,169.8	100.0%	–	5.1%	1,745.5	100.0%	–	5.1%	3.2%

Press and literature was the key core copyright industry, having the largest value added in both years. In 2007, this industry generated EUR 454 million of value added, which accounted for 39.5 percent of core copyright industries' value added and 1.3 percent of GDP. In real terms, the value added of this industry remained practically unchanged, with a mere 0.3 percent average annual increase. Its relative importance decreased from 2002 in favor of software and databases (Chart 11). The latter industry was the second most important and had EUR 390.6 million of value added in 2007. Its share in total core copyright industries' value added

and GDP was almost equal to that of press and literature. Compared to 2002, its value added increased in real terms by 9.3 percent per year.

Other industries had much smaller value added compared to press and literature and software and databases. Radio and television created EUR 87.4 million of value added, while advertising created EUR 79.2 million of value added and film and video followed with EUR 71.5 million of value added. Each of the three industries contributed around 0.2 percent to GDP and between 6.2 percent (film and video) and 7.6 percent (radio and television) of core copyright industries' value added.

Chart 11: Value Added Structure of Core Copyright Industries



Compared to 2002, only the relative importance of advertising increased out of these three industries. Advertising was relatively less important when economic performance is measured in value added terms rather than in output, but it has experienced a strong real growth in value added of 8.7 percent per year. On the other hand, radio and television is relatively more important when value added is used to measure economic performance; however, this seems to be a more mature industry, with a moderate 0.9% average annual real growth rate of value added over the analyzed period. Music, theatrical productions, opera, with EUR 44.3 million in value added, was slightly less important than the above-mentioned industries, but its share in the value added of core and total copyright-based industries slightly increased.

The remaining industries (visual and graphic arts; photography; and copyright collecting organizations) together produced EUR 23.3 million in 2007, which accounted for less than 0.1 percent of GDP and around 2 percent of core copyright industries' value added. The economic contribution of these industries did not change much between 2002 and 2007.

5.2.4 *Employment*

The three core copyright industries that employed the most people in 2007 were (in descending order):

- Press and literature;
- Software and databases;
- Radio and television

Together, they employed 29,137 people in 2007 – an increase of 17 percent compared to 2002 – and contributed 79.6 percent to employment in core copyright industries and 3.7 percent to total national employment (Table 9). Because other core copyright industries also increased employment, the share of these three industries in the total employment of core copyright industries decreased over the period 2002 to 2007 by 0.5 percentage points, but their contribution to national employment increased by 0.4 percentage points.

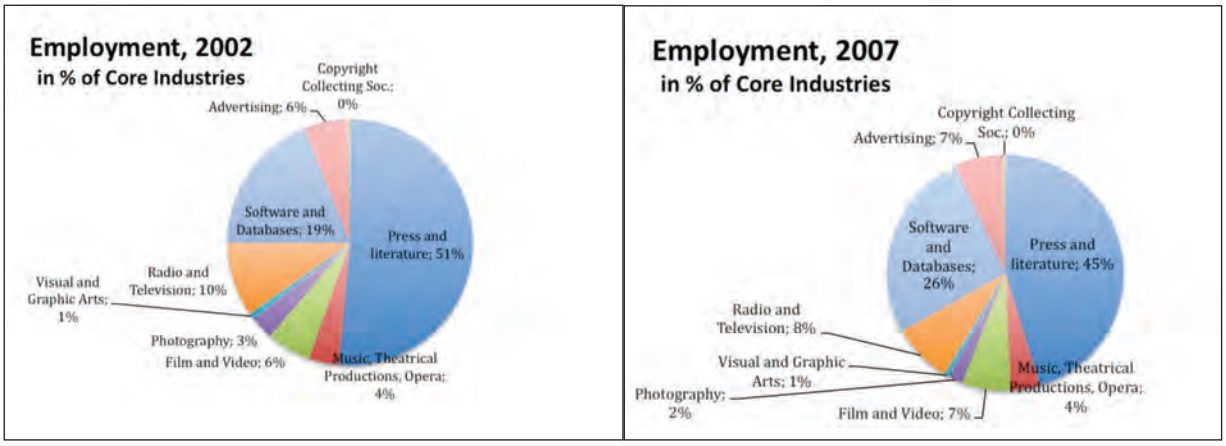
Unlike value added, where the two most important industries achieved a similar amount of value added, press and literature was by far the largest employer among core copyright industries. Press and literature alone employed 16,563 people in 2007, which was 45.2 percent of the employment in core copyright industries and 2.1 percent of national employment.

Table 9: Detailed Employment of Core Copyright Industries

Core	Employment						
	2002	% of total copyright-based	% of core	2007	% of total copyright-based	% of core	Average annual growth
Press and literature	15,967	32.6%	51.4%	16,563	30.4%	45.2%	0.7%
Music, theatrical productions, opera	1,238	2.5%	4.0%	1,483	2.7%	4.1%	3.7%
Film and video	1,825	3.7%	5.9%	2,431	4.5%	6.6%	5.9%
Photography	948	1.9%	3.1%	726	1.3%	2.0%	-5.2%
Visual and graphic arts	252	0.5%	0.8%	255	0.5%	0.7%	0.3%
Radio and television	3,038	6.2%	9.8%	2,991	5.5%	8.2%	-0.3%
Software and databases	5,859	12.0%	18.9%	9,584	17.6%	26.2%	10.3%
Advertising	1,824	3.7%	5.9%	2,478	4.5%	6.8%	6.3%
Copyright collecting organizations	84	0.2%	0.3%	93	0.2%	0.3%	1.9%
Total core industries	31,034	63.4%	100.0%	36,603	67.2%	100.0%	3.4%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

Software and databases employed less than half as many people as press and literature in 2002, but this industry was the biggest generator of new employment. Between 2002 and 2007 it increased employment on average by 10.3 percent per year. In 2007, this industry employed 9,584 people, which represented around a quarter of the employment in core copyright industries and 1.2 percent of national employment. Similarly to other indicators of economic performance, employment shows that the relative importance of press and literature decreased notably in favor of software and databases. A typical company in this industry relies on domestic employees as well as on the work done by people hired in foreign countries (frequently via a company's subsidiaries), thus also increasing the employment outside Slovenia.

Chart 12: Employment Structure in Core Copyright Industries



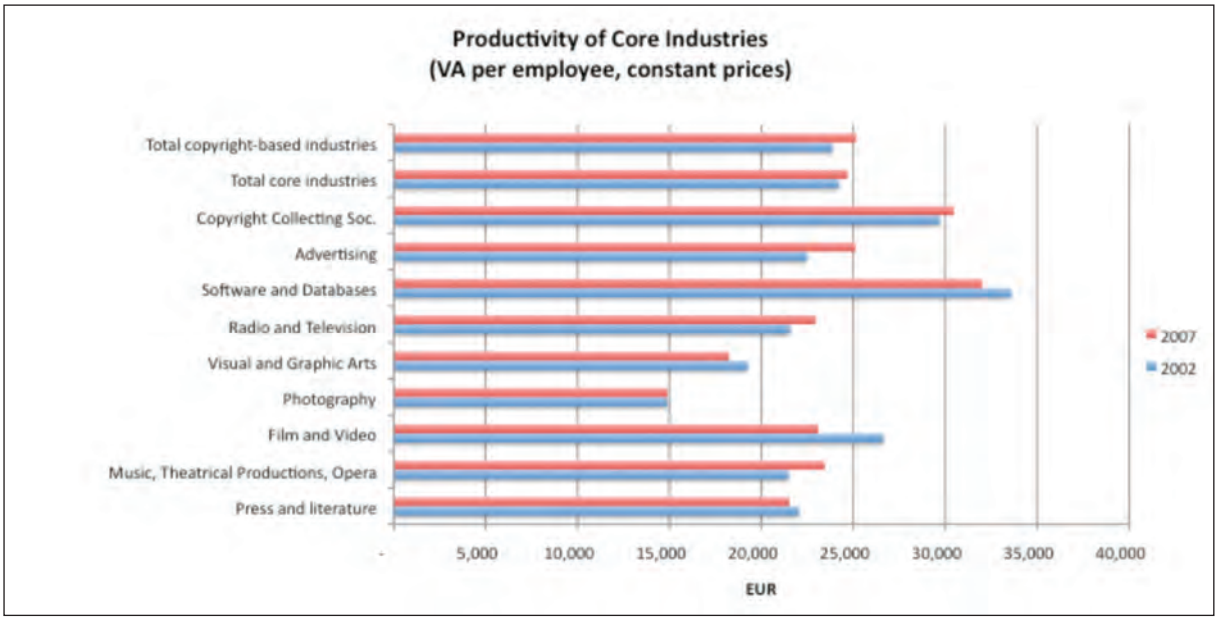
Radio and television was the third most important core copyright industry in relation to employment. In 2007 it employed 2,991 people, which represented 8.2 percent of employment in core copyright industries. However, from 2002 onward the employment in this industry was on average declining by 0.3 percent per year. Advertising and film and video employed a similar number of people in both years. In 2007, they each employed around 2,450 people, which represented more than 6.5 percent of employment in core copyright industries and around 0.3 percent of national employment. The contribution of advertising to core copyright industries and aggregate employment increased by 6.3 percent annually until 2007, which was more than the contribution of film and video had grown (on average by only 5.9 percent per year). Also, music, theatrical productions, opera increased employment from 2002 to 2007 at a rate of 3.7 percent per year, but at a lower level of employment than advertising or film and video: in 2002 this industry gave work to 1,238 people and employed 245 more people by 2007.

The total employment in the remaining industries (visual and graphic arts; photography; and copyright collecting organizations) was reduced in absolute and relative terms in the period 2002 to 2007. In 2007, they employed together 1,074 people or 2.9 percent of core copyright industries' employment.

5.2.5 *Productivity*

Productivity was measured in terms of real value added per employee. Real value added was calculated by deflating nominal value added in 2007 with the GDP deflator for the period 2002 to 2007 (127.3).

Chart 13: Productivity of Core Copyright Industries in Real Terms



Software and databases was by far the most productive industry, with EUR 32,018 value added per employee in 2007, while the average productivity of core and total copyright-based industries was around EUR 25,000. In the period 2002 to 2007, the average productivity of core and total copyright-based industries increased by 0.4 and 1 percent respectively, but the productivity of software and databases dropped on average by 0.9 percent annually. The productivity dropped because the industry was increasing employment faster than its output and value added. According to the representative of this industry in our panel of industry experts, the drop in productivity is due to the industry maturing: the returns started to decline, and the product life-cycles slowly increased as consumers increasingly gave preference to using stable and reliable software over changing it every time a new version was offered.

Copyright collecting organizations had a high productivity in both years and increased it on average by 0.5 percent annually, but due to their role as redistributors and their low number of employees, this is not an important productivity benchmark for other industries.

The highest drop – 2.8 percent per year – was recorded for film and video, while the largest increase in productivity was recorded for advertising: almost 2.2 percent per year. Press and literature, as the most important core industry economically, had below-average productivity in both years, and experienced a slight drop of 0.5 percent per year. Apart from copyright collecting organizations and software and databases, all other core copyright industries in 2007 were less productive than the average copyright-based or core industry.

5.2.6 *Summary*

To summarize, we can say that press and literature and software and databases are the two most important copyright-based industries for the Slovenian economy, and that software and databases, as a younger, highly productive and still-growing industry, is rapidly gaining economic importance over press and literature, which

is a mature industry. Although the software and databases industry already shows some signs of maturing, e.g. longer product life-cycles and decreasing productivity, it can be expected that it will replace press and literature as the most important core copyright industry in the next couple of years, particularly because the software and databases industry is less volatile in times of economic recession than other core copyright industries.

Besides these two industries, advertising, film and video, and radio and television also have significant economic importance for Slovenia. Of these industries, advertising has the fastest growth and highest productivity; therefore, it will probably become more important in the future. Unlike software and databases, advertising is more volatile than the average industry, booming in times of economic prosperity and plummeting in times of recession. The development of advertising thus greatly depends on the economic growth of the Slovenian economy.

The remaining industries – music, theatrical productions, and opera; photography; visual and graphic arts; and copyright collecting organizations – only make a small contribution to the Slovenian economy. Of these industries, music, theatrical productions and opera is the most important and has the highest productivity and growth.

5.3 Interdependent Copyright Industries

The interdependent copyright industries are engaged in the "production, manufacture and sale of equipment whose purpose is to wholly or primarily facilitate the creation and production or usage of works and other protected subject matter" (WIPO Guide, p.33). Following the WIPO Guide, we included the following in the category of the interdependent industries:

- TV sets, radios, VCRs and DVD players
- Computers and equipment
- Musical instruments
- Photographic and cinematographic instruments
- Photocopiers
- Blank recording material
- Paper

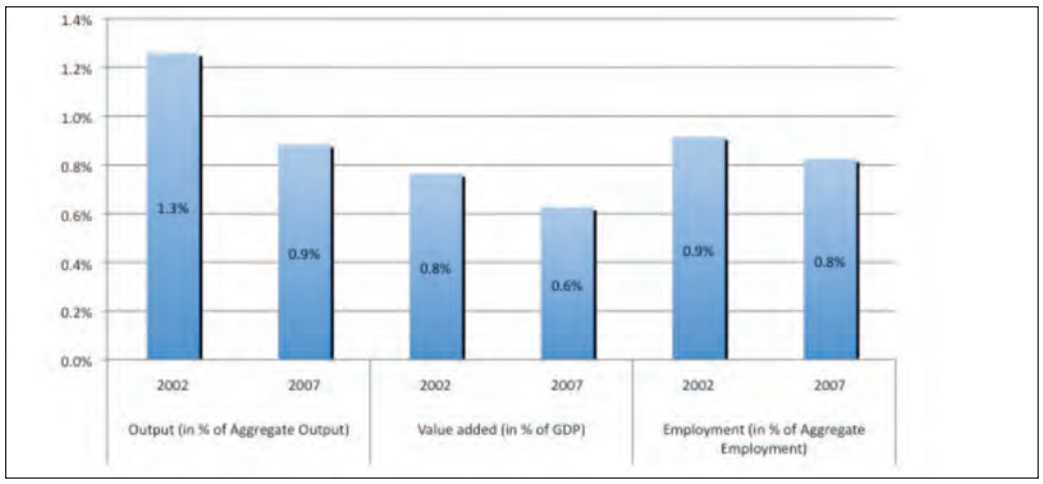
In our study, we assumed that all interdependent industries' economic activities are related to copyright-protected products. Therefore, we included all of the output, value added and employment generated by these industries in the copyright-based economy, except that of the paper industry (Appendix 1). Due to the specifics of the paper industry, we decided to introduce the copyright factor based on the interviews with the industry representatives. The results of this qualitative approach showed that the appropriate copyright factor in the case of Slovenia would be 0.700.

5.3.1 *Overview*

In 2007, interdependent industries contributed (Table 10 to Table 12, Chart 14):

- EUR 631.0 million or 0.9 percent of the total output produced in Slovenia in 2007. The average annual growth rate in real terms was negative and amounted to -2.6 percent.
- EUR 216.0 million of total value added or 0.6 percent of Slovenian GDP in 2007. The annual growth rate in real terms was negative and amounted to -0.8 percent.
- 6,573 employees or 0.8 percent of the economy's total employment in 2007. So, on average, the number of employees decreased by 1.0 percent a year in the observed period.

Chart 14: Relative Size of Interdependent Copyright Industries in 2002 and 2007



5.3.2 *Output*

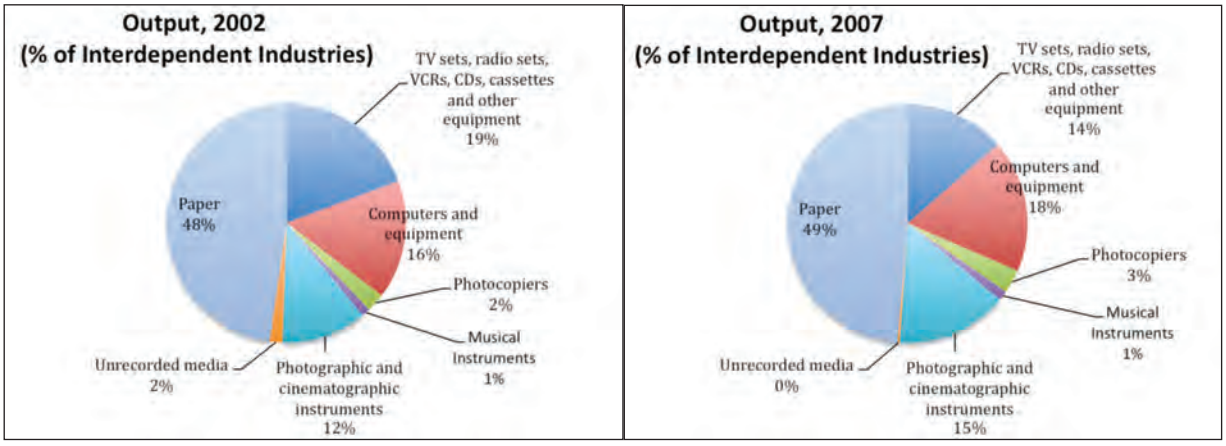
The output of the interdependent industries grew by EUR 64.6 million between 2002 and 2007 (Table 10). The key industry within this group is the paper industry. In 2007, the paper industry generated 7.4 percent of all output produced in copyright-based industries, indicating that in Slovenia the paper industry is of great relevance for copyright-based industries. During the observed period, output in the paper industry grew by EUR 36.6 million; however, in real terms the growth rate was negative and amounted to -2.6 percent per annum.

Table 10: Interdependent Industries' Detailed Output Structure in 2002 and 2007

Interdependent	Output (mill. EUR)						
	2002	% of total copyright-based	% of inter-dependent	2007	% of total copyright-based	% of inter-dependent	Average annual real growth
TV sets, radio sets etc.	109.3	3.9%	19.3%	85.3	2.1%	13.5%	-9.3%
Computers and equipment	91.1	3.3%	16.1%	113.5	2.7%	18.0%	-0.4%
Photocopiers	14.2	0.5%	2.5%	20.2	0.5%	3.2%	2.2%
Musical instruments	6.4	0.2%	1.1%	8.3	0.2%	1.3%	0.4%
Photographic and cinematographic ins.	65.3	2.3%	11.5%	94.8	2.3%	15.0%	2.7%
Unrecorded media	9.9	0.4%	1.7%	2.0	0.0%	0.3%	-31.0%
Paper	270.3	9.7%	47.7%	306.9	7.4%	48.6%	-2.3%
Total interdependent industries	566.4	20.2%	100.0%	631.0	15.2%	100.0%	-2.6%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

The paper industry generated 47.7 and 49 percent of output in 2002 and 2007 respectively. TV sets and radios recorded a decline and in 2007 generated 13.5 percent of all group output. Computers and equipment increased their share in 2007, generating 18 percent of output, while photographic and cinematographic instruments generated 15 percent of the group output. Photocopiers, musical instruments and unrecorded media generated only 3.2 percent of group output in 2007 (Chart 15).

Chart 15: Interdependent Industries' Output Structure in 2002 and 2007



5.3.3 *Value added*

The value added generated by interdependent industries was EUR 176.9 million in 2002 and grew to EUR 216.0 million in 2007 (Table 11). The recorded real drop in the observed period was 0.8 percent per annum.

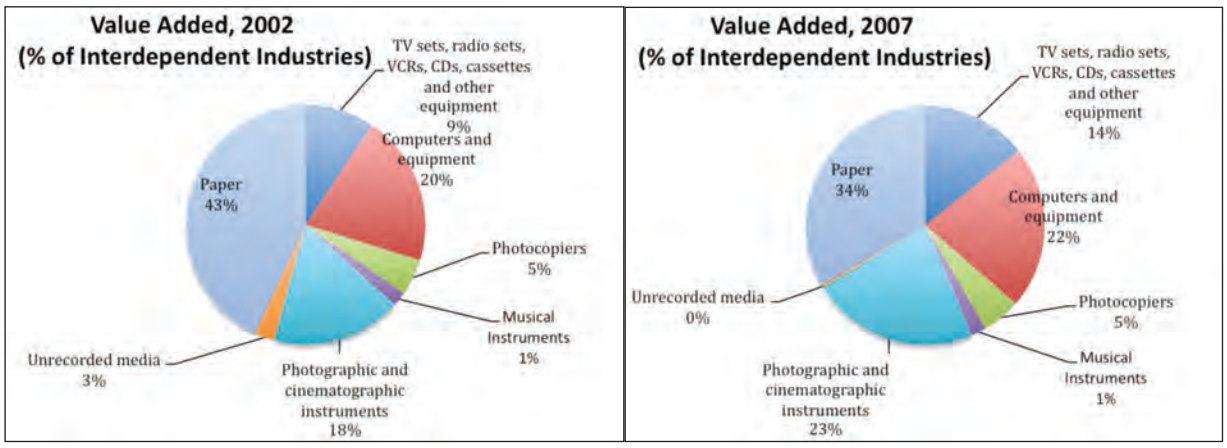
Table 11: Interdependent Industries' Detailed Value Added Structure in 2002 and 2007

Interdependent	Value added (mill. EUR)						
	2002	% of total copyright–based	% of inter–dependent	2007	% of total copyright–based	% of inter–dependent	Average annual real growth
TV sets, radio sets etc.	16.5	1.4%	9.3%	30.8	1.8%	14.3%	7.9%
Computers and equipment	36.2	3.1%	20.4%	47.7	2.7%	22.1%	0.7%
Photocopiers	8.7	0.7%	4.9%	11.2	0.6%	5.2%	0.3%
Musical instruments	3.4	0.3%	1.9%	4.4	0.3%	2.0%	0.2%
Photographic and cinematographic ins.	31.2	2.7%	17.6%	49.0	2.8%	22.7%	4.3%
Unrecorded media	4.7	0.4%	2.6%	0.7	0.0%	0.3%	-34.5%
Paper	76.2	6.5%	43.1%	72.0	4.1%	33.4%	-5.8%
Total interdependent industries	176.9	15.1%	100.0%	216.0	12.4%	100.0%	-0.8%
Total copyright-based industries	1,169.8	100.0%	–	1,745.5	100.0%	–	3.2%

The highest real value added growth rates were recorded in the TV sets and radio sets industry, amounting to 7.9 percent per annum, and in the photographic and cinematographic instruments industry, amounting to 4.3 percent in the period 2002 to 2007. The average annual value added growth rates in the computer and equipment, photocopiers, and musical instruments industries amounted to 0.7, 0.3 and 0.2 percent respectively. On the other hand, the paper and unrecorded media industries experienced average annual decline rates during the observed period. Value added in the paper industry dropped on average in real terms by 5.8 percent per annum, while the drop in the unrecorded media industry was 34.5 percent per annum.

The structure of the value added that was generated differs from the structure of the output that was generated. Paper is the key industry, generating 43.1 percent of value added in 2002 and 33.4 percent of value added in 2007. This is a relatively high drop in generated value added, especially given the fact that the share of output in the observed period did not change significantly. Due to the high growth rates in the observed period, the share of the computer and equipment and photographic and cinematographic instruments industries was 22.7 percent in 2007. So these three groups of industries generated 78.2 percent of value added generated by the interdependent industries in 2007.

Chart 16: Interdependent Industries' Value Added Structure in 2002 and 2007



5.3.4 *Employment*

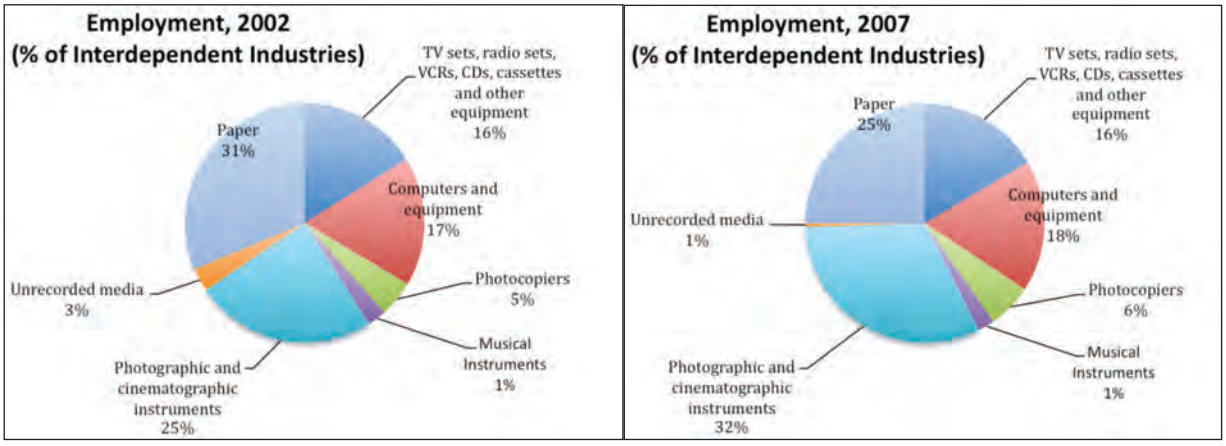
Total employment in the group of interdependent industries decreased by 1 percent per annum in the period from 2002 to 2007 (Table 12). The highest decreases in the number of employees were recorded in the unrecorded media and paper industries. Only two industries from this group recorded increases in the number of employees: the photocopier and photographic and cinematographic instruments industries.

In terms of employment, the key industry is again the paper industry, which generated 31.3 percent of all employment in this group in 2002 and 25.5 percent in 2007 (Chart 17). Due to the growth rate in the number of employees in the photographic and cinematographic instruments industry, the share of employees in this industry increased by 32 percent of all employees in the group of interdependent industries in 2007. TV sets and radios generated 16.5 percent of employment in 2007, while computers and equipment generated 17.8 percent of employment in the same year. Together, those four industries employed 91.2 percent of all workers in the group of interdependent industries.

Table 12: Interdependent Industries' Detailed Employment Structure in 2002 and 2007

Interdependent	Employment						
	2002	% of total copyright-based	% of inter-dependent	2007	% of total copyright-based	% of inter-dependent	Average annual growth
TV sets, radio sets etc.	1,112	2.3%	16.1%	1,083	2.0%	16.5%	-0.5%
Computers and equipment	1,208	2.5%	17.5%	1,171	2.1%	17.8%	-0.6%
Photocopiers	336	0.7%	4.9%	396	0.7%	6.0%	3.3%
Musical instruments	177	0.4%	2.6%	150	0.3%	2.3%	-3.3%
Photographic and cinematographic ins.	1,698	3.5%	24.5%	2,101	3.9%	32.0%	4.3%
Unrecorded media	221	0.5%	3.2%	33	0.1%	0.5%	-31.4%
Paper	2,165	4.4%	31.3%	1,639	3.0%	24.9%	-5.4%
Total interdependent industries	6,917	14.1%	100.0%	6,573	12.1%	100.0%	-1.0%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

Chart 17: Interdependent Industries' Employment Structure in 2002 and 2007



5.3.5 *Summary*

The paper industry is the key industry within the group of interdependent industries in Slovenia. If we consider value added per employee as a productivity estimator, we can see that the paper industry is the most productive within this group. Value added per employee in the paper industry in 2007 was EUR 43,944, which is significantly higher than in the other industries within this group. A high productivity level was also recorded in the computer and equipment industry in 2007, where value added per employee was EUR 40,762. The computer and equipment industry was progressing during the observed period. The output and value added in the industry increased, while the number of employees slightly decreased.

High growth in productivity was recorded in the TV sets and radios industry during the observed period; however, the average value added per employee in this industry in 2007 was still below the group average, and amounted to EUR 28,482. The output in the TV sets and radios industry decreased, but value added increased, while the number of employees remained at the same level during the observed period. The lowest value added per employee in 2007 was recorded in the photographic and cinematographic instruments and unrecorded media industries (EUR 23,349 and EUR 21,361 respectively). The latter is highly insignificant within the group and recorded a drop in all categories over the observed period.

5.4 Partial Copyright Industries

Partial industries are those in which a portion of the activities is related to the creation, production, manufacturing, performance, broadcast, communication and exhibition of copyright-protected products. The following groups of partial industries are included in this category:

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

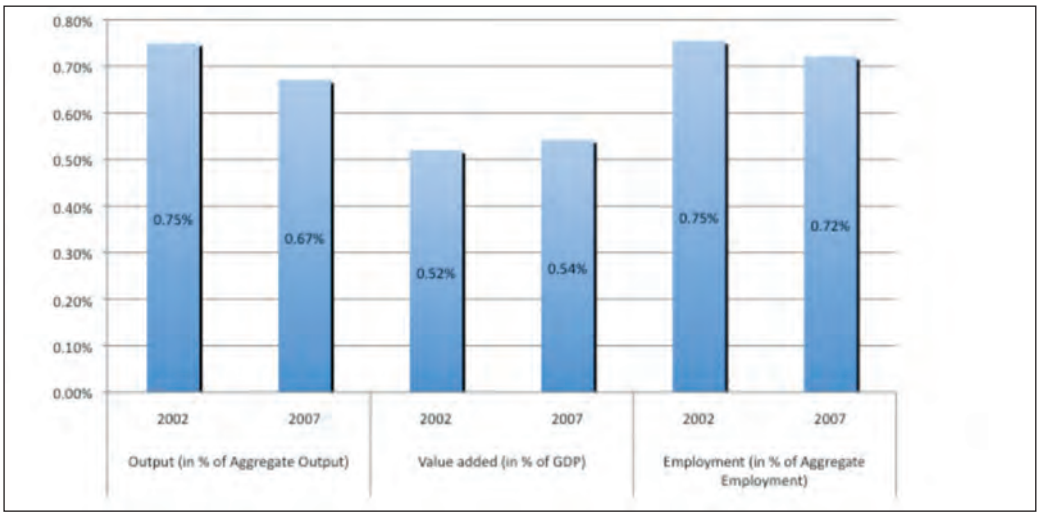
In the case of partial industries, we cannot assume that all economic activities are related to copyright-protected products. Therefore, we assigned copyright factors for the various industries that range from 0.060 to 0.500 (Table 1 or Table 25 in the Appendix).

5.4.1 *Overview*

The partial copyright industries contributed the following output, value added and employment to the Slovenian economy (Chart 18):

- In 2007, share of the total output generated by those industries dropped to 0.7 percent of aggregate output, while in absolute numbers those industries contributed EUR 478.8 million to the total Slovenian output. The real annual growth rate of output in those industries in the period 2002 to 2007 was 2.2 percent.
- The contribution of partial industries to the Slovenian economy GDP was 0.5 percent in 2007. In absolute numbers, the value added generated by the partial industries was EUR 187.0 million in 2007. The real annual growth rate of value added was 4.1 percent in the observed period.
- Employment generated by the partial industries represented 0.7 percent of total employment in 2007. Approximately 5,745 workers were employed in those industries. The average annual growth rate in the observed period was 0.2 percent.

Chart 18: Relative Size of Partial Copyright Industries in 2002 and 2007.



5.4.2 *Output*

It is estimated that, in 2007, EUR 578.8 million or 11.5 percent of all output generated by the copyright industries was generated by the partial industries. The key industry in this group is architecture, engineering, and surveying, generating 75 percent of total output in partial industries and 8.6 percent of all output in all copyright-based industries. The annual growth rate in the architecture, engineering, and surveying industry in the period 2002 to 2007 amounted to 2.3 percent. Very high annual growth rates of output were generated by the interior design industry, reaching 17.1 percent yearly (Table 13).

Table 13: Partial Industries' Detailed Output Structure in 2002 and 2007

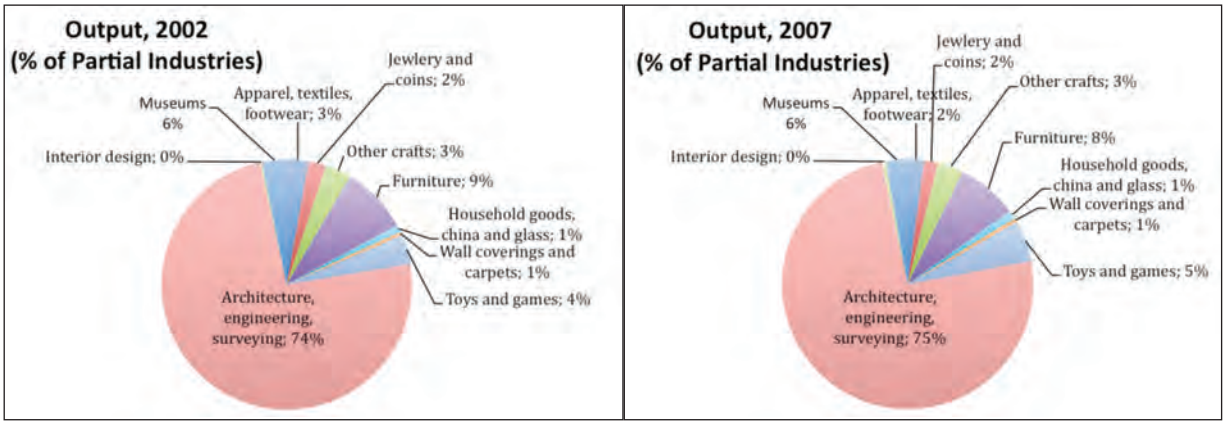
Partial	Output (EUR mill.)						
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	Average annual real growth
Apparel, textiles, footwear	9.6	0.3%	2.8%	10.0	0.2%	2.1%	-3.8%
Jewelry and coins	7.6	0.3%	2.3%	8.8	0.2%	1.8%	-2.0%
Other crafts	11.3	0.4%	3.4%	15.7	0.4%	3.3%	1.7%
Furniture	29.4	1.0%	8.7%	37.7	0.9%	7.9%	0.2%
Household goods, china and glass	3.1	0.1%	0.9%	5.3	0.1%	1.1%	6.0%
Wall coverings and carpets	1.5	0.1%	0.5%	2.4	0.1%	0.5%	4.6%
Toys and games	12.9	0.5%	3.8%	25.6	0.6%	5.3%	9.2%
Architecture, engineering, surveying	250.2	8.9%	74.2%	357.5	8.6%	74.7%	2.3%

Table 13: Partial Industries' Detailed Output Structure in 2002 and 2007 (continued)

Interior design	0.8	0.0%	0.2%	2.3	0.1%	0.5%	17.1%
Museums	10.7	0.4%	3.2%	13.5	0.3%	2.8%	-0.2%
Total partial industries	337.1	12.0%	100.0%	478.8	11.5%	100.0%	2.2%
Total copyright-based industries	2,800.8	100.0%	-	4,155.0	100.0%	-	3.1%

As already stated and presented in Chart 19, architecture, engineering, and surveying is the key industry in this group, generating two thirds of the output. Furniture, toys and games and other crafts generated 7.5, 5.7 and 2.9 percent of output produced in this group of industries respectively. The remaining industries from this group generated less than 10 percent of output.

Chart 19: Partial Industries' Output Structure in 2002 and 2007



5.4.3 *Value added*

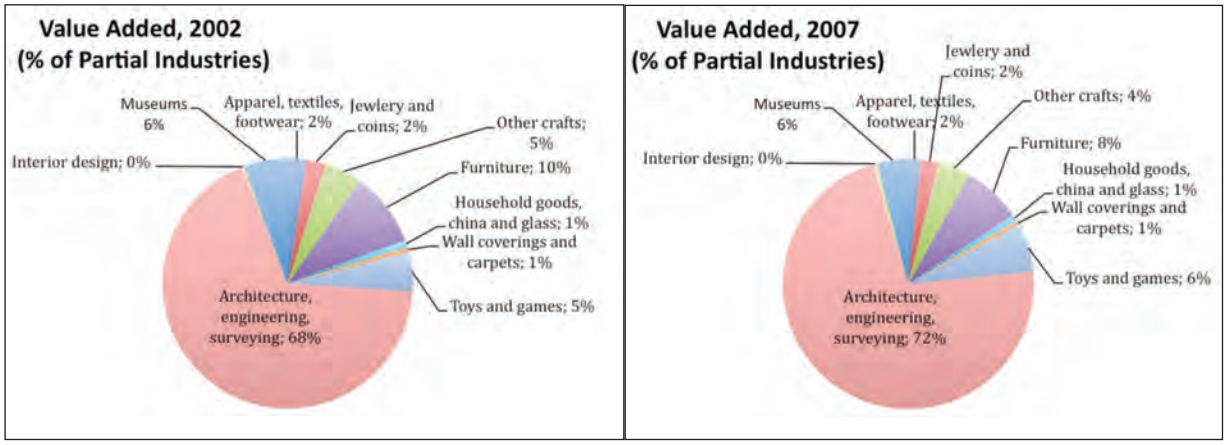
The total value added generated by the partial industries in 2007 represents 10.3 percent of value added generated by the total copyright-based industries in Slovenia. The key industry is architecture, engineering, and surveying, which – as in the case of output – is generating almost two thirds of all value added created in the partial industries. The average real annual value added growth rate was 4.1 percent in the observed period. The highest real annual growth rates were generated by the interior design, toys and games and architecture industries, amounting to 18.2, 8.3 and 5.2 percent respectively (Table 14).

Table 14: Partial Industries' Detailed Value Added Structure in 2002 and 2007

Partial	Value added (EUR mill.)						
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	Average annual real growth
Apparel, textiles, footwear	2.9	0.2%	2.4%	3.0	0.2%	1.6%	-4.1%
Jewelry and coins	3.1	0.3%	2.6%	4.3	0.2%	2.3%	2.0%
Other crafts	5.8	0.5%	4.8%	7.7	0.4%	4.2%	0.9%
Furniture	11.6	1.0%	9.6%	14.2	0.8%	7.6%	-0.7%
Household goods, china	1.1	0.1%	0.9%	1.7	0.1%	0.9%	3.8%
Wall coverings and carpets	0.8	0.1%	0.6%	1.0	0.1%	0.6%	1.4%
Toys and games	6.1	0.5%	5.1%	11.5	0.7%	6.2%	8.3%
Architecture, eng., surv.	81.9	7.0%	68.1%	134.3	7.7%	72.1%	5.2%
Interior design	0.3	0.0%	0.3%	1.0	0.1%	0.5%	18.2%
Museums	6.8	0.6%	5.7%	7.5	0.4%	4.0%	-1.4%
Total partial industries	120.3	10.3%	100.0%	186.4	10.7%	100.0%	4.1%
Total copyright-based industries	1,169.8	100.0%	–	1,745.5	100.0%	–	3.2%

The structure of the value added created by the partial industry group does not differ significantly from the structure of produced output. The largest generator of value added is the architecture, engineering, and surveying industry. This industry generated 72.1 percent of all value added in this group in 2007. Furniture, toys and games and other crafts generated 7.6, 6.2 and 4.2 percent of value added respectively. The structure of value added did not change significantly between 2002 and 2007.

Chart 20: Partial Industries' Value Added Structure in 2002 and 2007



5.4.4 *Employment*

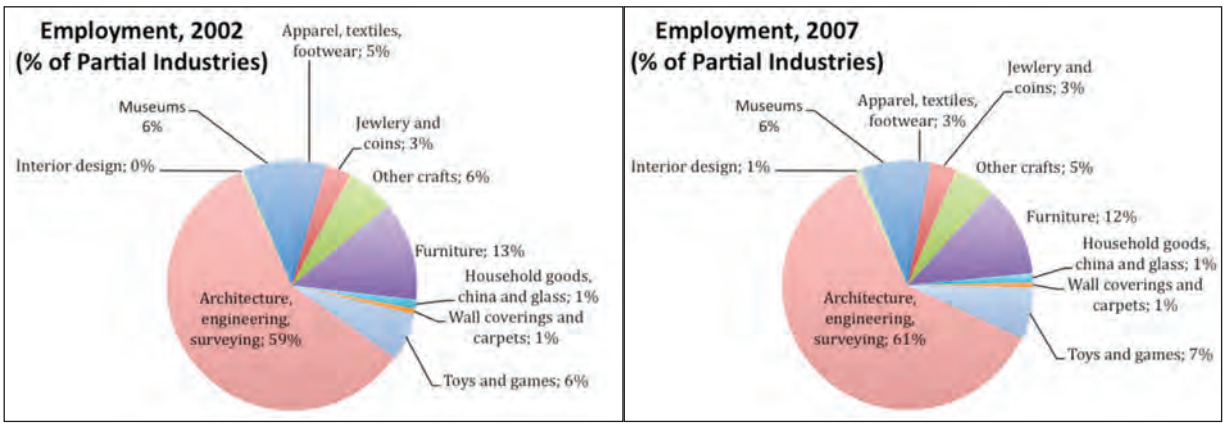
Employment in the partial industries represented 11.6 percent of all employment generated by the copyright-based industries in 2007. The number of employees in this group grew by 0.2 percent annually in the observed period. The highest drop in the number of employees was recorded in the apparel, textiles and footwear industry. The average annual drop in the observed period was 7.4 percent. Conversely, interior design generated the most new employments in this group of industries. The average annual growth rate over the observed period was 16.3 percent.

Table 15: Partial Industries' Detailed Employment Structure in 2002 and 2007

Partial	Employment						
	2002	% of total copyright-based	% of partial	2007	% of total copyright-based	% of partial	Average annual growth
Apparel, textiles, footwear	254	0.5%	4.5%	173	0.3%	3.0%	-7.4%
Jewelry and coins	187	0.4%	3.3%	191	0.4%	3.3%	0.4%
Other crafts	355	0.7%	6.2%	307	0.6%	5.3%	-2.9%
Furniture	731	1.5%	12.8%	678	1.2%	11.8%	-1.5%
Household goods, china and glass	65	0.1%	1.1%	66	0.1%	1.2%	0.3%
Wall coverings and carpets	41	0.1%	0.7%	38	0.1%	0.7%	-1.3%
Toys and games	349	0.7%	6.1%	386	0.7%	6.7%	2.1%
Architecture, engineering, surveying	3,329	6.8%	58.4%	3,502	6.4%	61.0%	1.0%
Interior design	22	0.0%	0.4%	48	0.1%	0.8%	16.3%
Museums	365	0.7%	6.4%	357	0.7%	6.2%	-0.4%
Total partial industries	5,698	11.6%	100.0%	5,745	10.6%	100.0%	0.2%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

The major employers in this group were: architecture, engineering, and surveying; other crafts; furniture; and toys and games. These industries generated 85 percent of the total employment in this group in 2007. Similarly to the cases of output and value added, architecture, engineering, and surveying generated the most employment in this group (61 percent in 2007).

Chart 21: Partial Industries' Employment Structure in 2002 and 2007



5.4.5 *Summary*

Architecture, engineering, and surveying is the key industry within this group. This industry generates around two thirds of the group's output, value added and employment. In terms of productivity, this industry can also be classified as highly productive, since the value added per employee reached EUR 32,812 in 2007. The industry with the highest productivity in 2007 was interior design. The value added per employee created by this industry was EUR 43,574. In addition, the architecture and toys and games industries generated productivity higher than the group average, reaching EUR 40,356 and EUR 33,104 respectively in 2007.

The industry that was the least productive was the apparel, textiles and footwear industry. The value added per employee in this industry in 2007 was EUR 11,626. This industry also recorded drops in output, value added and employment over the observed period. Other industries from the group generated value added per employee that was lower than average (other crafts; furniture; household goods, china and glass; and wall coverings generated value added per employee of EUR 21,773, EUR 19,432, EUR 26,473 and EUR 25,851 respectively).

5.5 Non-Dedicated Support Industries

The non-dedicated support industries are industries "in which a portion of the activities are related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries" (WIPO Guide, p.35). These activities are classified into three industries as follows:

- Wholesale and retail;
- Transportation;
- Telephony and internet

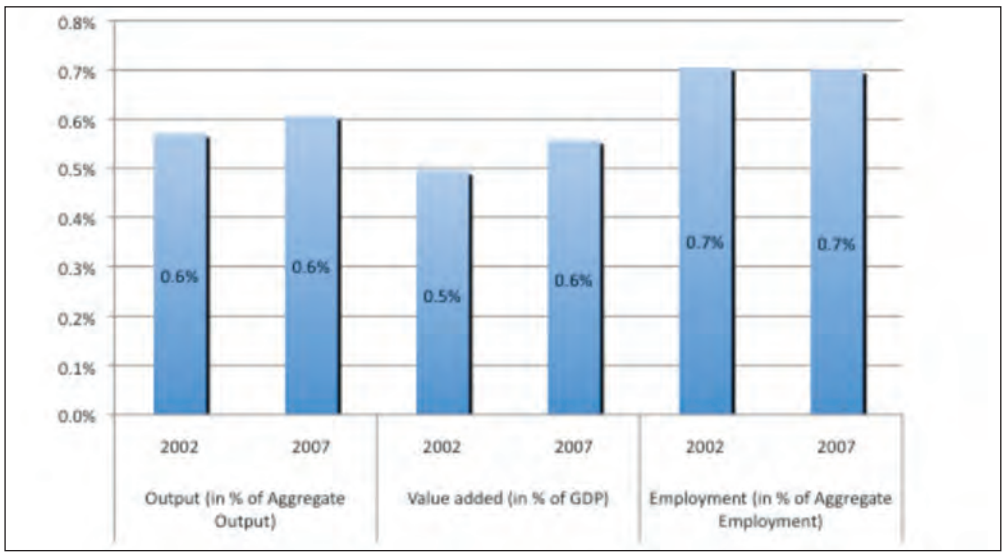
The copyright factor for non-dedicated industries was recalculated. Recalculation is weighted as being equal to the share of the first three groups (core, interdependent and partial) in the national GDP or the GVA (Gross Value Added) (Table 25 in the Appendix).

5.5.1 *Overview*

The non-dedicated copyright industries contributed the following output, value added and employment to the Slovenian economy (Chart 22):

- In 2007, the share of total output generated by non-dedicated support industries was 0.6 percent or EUR 433.3 million. The real annual growth rate of output in these industries was 5.8 percent.
- The contribution of non-dedicated industries to the Slovenian economy was 0.5 percent in 2007. In absolute numbers, the value added generated by this group was EUR 192.3 million in 2007. The real annual growth rate of value added was 5.7 percent.
- Non-dedicated industries employed 5,585 people or 0.7 percent of total employment in Slovenia in 2007. The real annual growth rate of value added was 1.2 percent.

Chart 22: Relative Size of Non-Dedicated Copyright Industries in 2002 and 2007



5.5.2 *Output*

It is estimated that, in 2007, EUR 433.3 million or 11 percent of all output generated by the copyright-based industries was generated by the non-dedicated industries. The key industries in this group are wholesale and retailing and transportation, generating 44.6 and 41.6 percent of the total output of non-dedicated industries and 4.9 and 4.6 percent of the output of all copyright-based industries respectively.

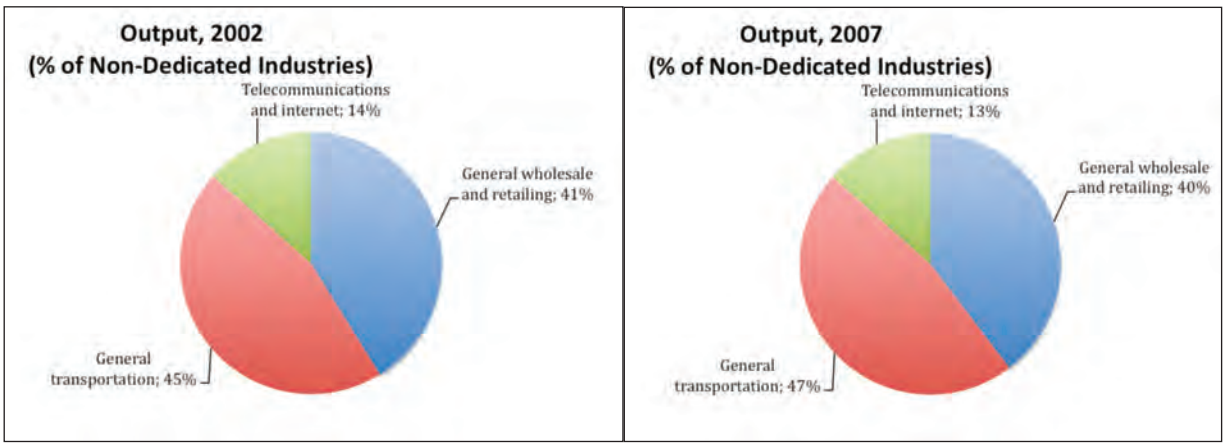
The real annual growth rate in wholesale and retail was 5 percent in the observed period, while the real annual growth rate in transportation was 6.5 percent. Telecommunications and internet generated EUR 58.2 million of output in 2007. The real annual growth rate in telecommunications and internet was 5.7 percent in the period 2002 to 2007.

Table 16: Non-Dedicated Industries' Detailed Output Structure in 2002 and 2007

Non-dedicated	Output (EUR mill.)						
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	Average annual real growth
General wholesale and retailing	105.8	3.8%	41.2%	171.7	4.1%	39.6%	5.0%
General transportation	116.5	4.2%	45.4%	203.4	4.9%	46.9%	6.5%
Telecommunications and internet	34.6	1.2%	13.5%	58.2	1.4%	13.4%	5.7%
Total non-dedicated industries	256.9	9.2%	100.0%	433.3	10.4%	100.0%	5.8%
Total copyright-based industries	2,800.8	100.0%	–	4,155.0	100.0%	–	3.1%

As we can see from Chart 23, the structure of the output of non-dedicated industries did not change significantly between 2002 and 2007. As already mentioned, the key industries are wholesale and retailing and transportation.

Chart 23: Non-Dedicated Industries' Output Structure in 2002 and 2007



5.5.3 *Value added*

The value added generated by the non-dedicated industries represents 11.0 percent of value added generated by the copyright-based industries in Slovenia in 2007.

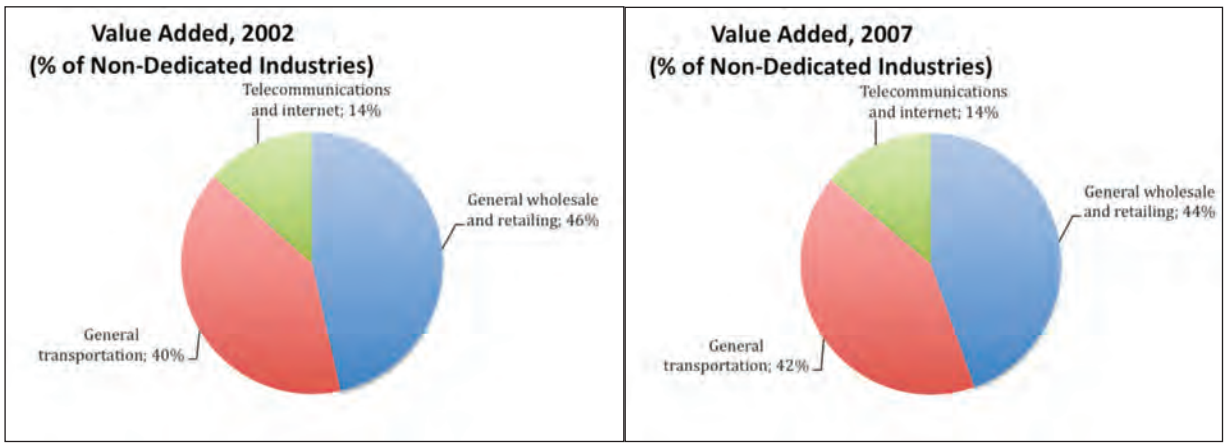
The average real annual value added growth rate was 4.6 percent in the observed period. Real annual growth rates generated by the wholesale and retailing, transportation and telecommunications and internet industries were 3.7, 5.4 and 5.1 percent respectively (Table 17).

Table 17: Non-Dedicated Industries' Detailed Value Added Structure in 2002 and 2007

Non-dedicated	Value added (EUR mill.)						
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	Average annual real growth
General wholesale and retailing	56.1	4.8%	46.5%	85.7	4.9%	44.6%	3.7%
General transportation	48.2	4.1%	39.9%	80.0	4.6%	41.6%	5.4%
Telecommunications and internet	16.4	1.4%	13.6%	26.7	1.5%	13.9%	5.1%
Total non-dedicated industries	120.7	10.3%	100.0%	192.3	11.0%	100.0%	4.6%
Total copyright-based industries	1,169.8	100.0%	–	1,745.5	100.0%	–	3.2%

As presented in Chart 24, the structure of the value added generated by non-dedicated industries does not significantly differ between 2002 and 2007. The key industries are wholesale and retailing and transportation, which together generated 86 percent of value added in 2002 and 2007.

Chart 24: Non-Dedicated Industries' Value Added Structure in 2002 and 2007



5.5.4 *Employment*

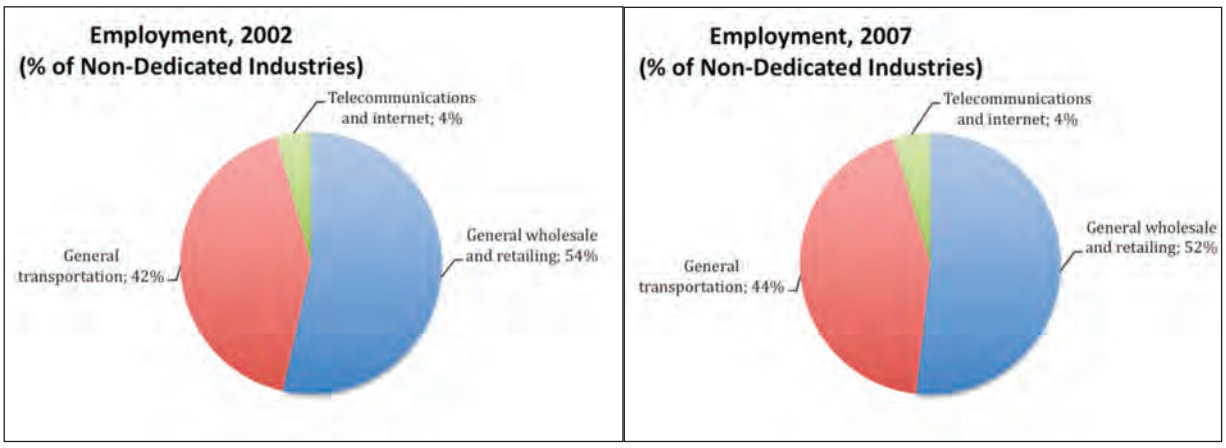
Employment in the partial industries represents 9.8 percent of employment generated by the copyright-based industries in 2007. The number of employees in this group grew by 0.9 percent annually in the observed period. Recorded growth rates in the number of employees in the wholesale and retailing, transportation, and telecommunications and internet industries were 0.3, 1.6 and 2.1 percent respectively.

Table 18: Non-Dedicated Industries' Detailed Employment Structure in 2002 and 2007

Non-dedicated	Employment						
	2002	% of total copyright-based	% of non-dedicated	2007	% of total copyright-based	% of non-dedicated	Average annual growth
General wholesale and retailing	2,847	5.8%	53.4%	2,890	5.1%	51.7%	0.3%
General transportation	2,252	4.6%	42.3%	2,439	4.3%	43.7%	1.6%
Telecommunications and internet	231	0.5%	4.3%	256	0.5%	4.6%	2.1%
Total non-dedicated industries	5,330	10.9%	100.0%	5,585	9.8%	100.0%	0.9%
Total copyright-based industries	48,978	100.0%	–	54,506	100.0%	–	2.2%

As presented in Chart 25, the employment structure for non-dedicated industries does not significantly differ in 2007 in comparison with 2002. Wholesale and retailing generated 52 percent of all employment in 2007 and 54 percent in 2002.

Chart 25: Non-Dedicated Industries' Employment Structure in 2002 and 2007



5.5.5 *Summary*

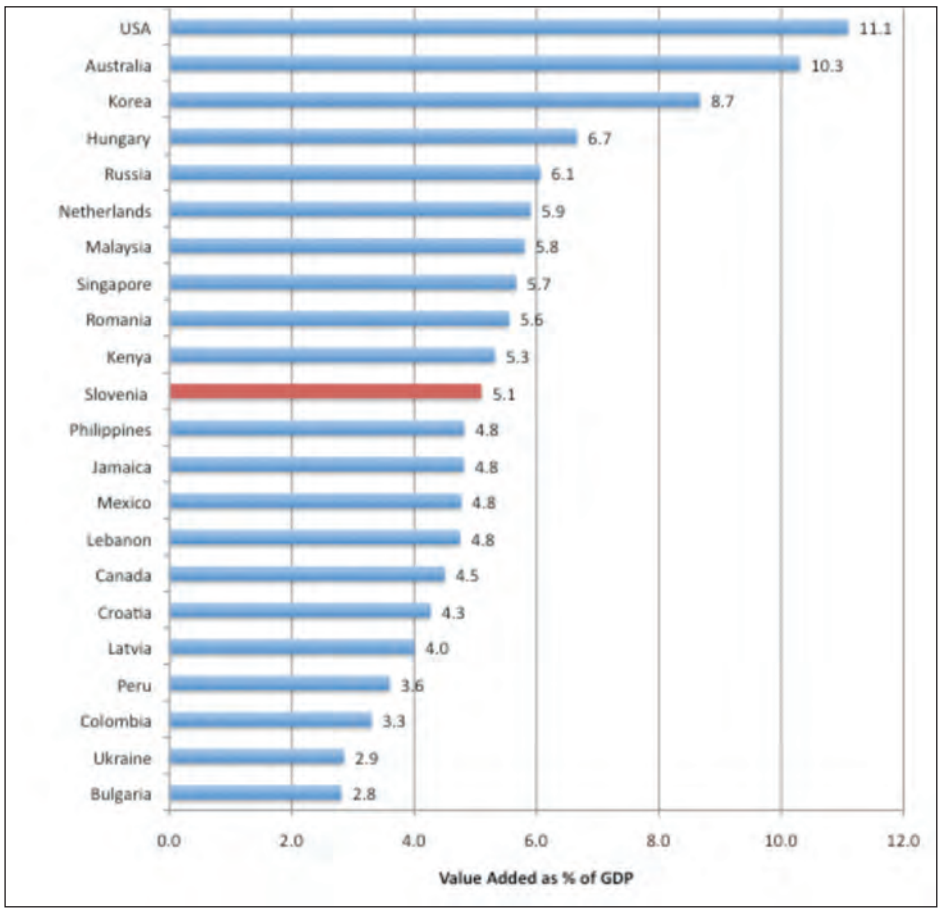
To summarize, the key industries within this group are wholesale and retailing and transportation. The most productive industry in this group was telecommunications and internet, generating EUR 104,143 of value added per employee in 2007. The value added per employee for wholesale and retailing and transportation was EUR 29,652 and EUR 32,779 respectively.

5.6 Comparison with Previous Studies

In this section, we compare the present study and the contribution of the copyright-based industries to the Slovenian economy with studies in other countries also carried out in accordance with the WIPO Guide. For the purpose of the comparison, we consider the 21 other countries that have conducted a survey in accordance with the WIPO Guide. Due to the fact that all of those studies used the same methodology to measure the economic benefits from the copyright-based industries, we may assume that they are comparable with the Slovenian study. The available studies were not only carried out in developed countries, but in a number of developing countries, such as the Philippines, Peru, Mexico, Malaysia, Kenya, Ukraine, etc. Even though the EU had 27 members in 2007, only 5 similar studies have been carried out by the EU member countries following the WIPO methodology. In order to compare the results of the copyright-based industries' contributions to the national economies, we presented the share of those industries in the GDP and employment of each country.

Chart 26 shows the position held by Slovenia in comparison with other countries.

Chart 26: The added value of copyright-based industries as % of GDP per country

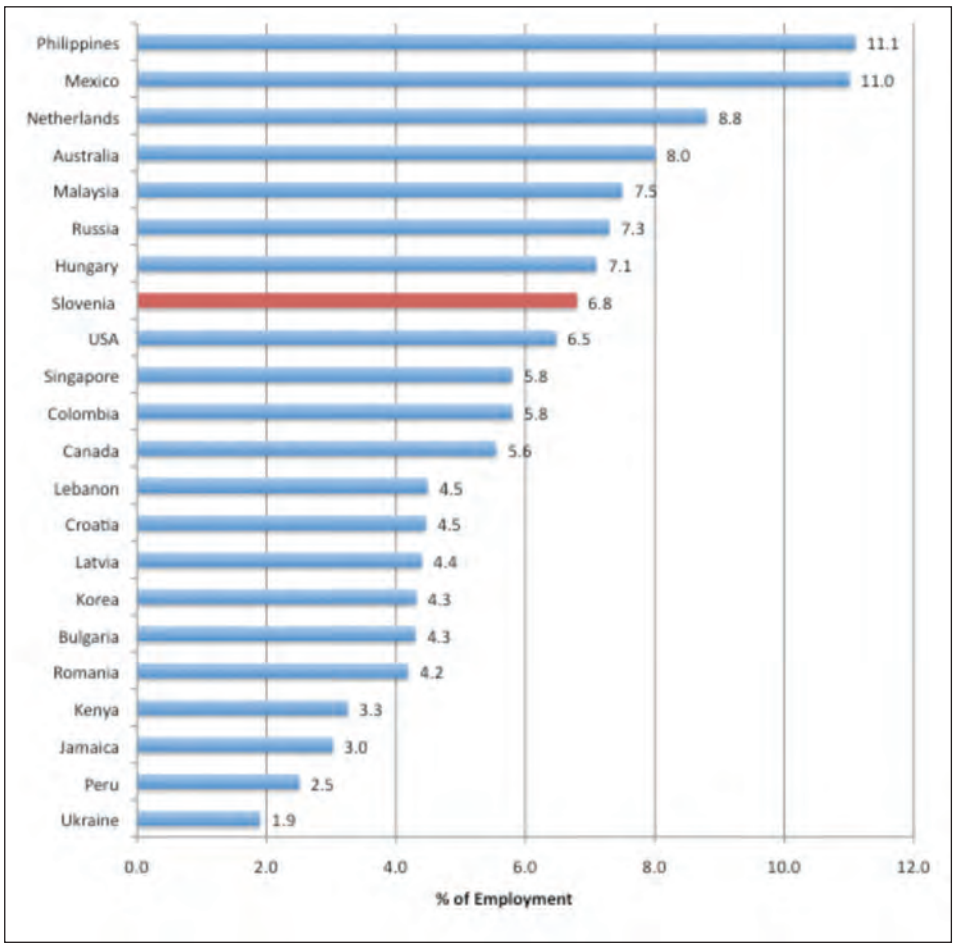


Source: WIPO, 2009.

Copyright-based industries comprise 5.1% of Slovenian GDP in 2007, while the average of the 21 countries was 5.5 percent. It is clear that Slovenia is just a bit below the average, holding 11th position in the group of 22 countries. It is expected that copyright-based industries in Slovenia are not contributing as much to Slovenian GDP as those industries do in the USA, Australia or Korea. If we compare the results with the EU countries, copyright-based industries in Hungary, the Netherlands, and Romania are contributing relatively more to the national GDP, while copyright-based industries are contributing significantly less to GDP in Latvia and Bulgaria.

In terms of employment (Chart 27), the copyright-based industries in Slovenia contributed 6.8 percent of national employment in 2007. The average of the 21 countries was 5.7 percent, meaning that Slovenia is clearly above average. Slovenia is in 8th position in the group of 22 countries. Very high percentages of national employment in copyright-based industries were recorded in the Philippines, Mexico, the Netherlands and Australia, while Ukraine, Peru, Jamaica and Kenya recorded the lowest percentages for the copyright-based industries' contributions to total employment at national level. In comparison with other EU countries, the Netherlands and Hungry recorded higher percentages of employment in copyright-based industries than Slovenia, while the percentages recorded in Latvia, Bulgaria and Romania were lower.

Chart 27: The Employment of Copyright-Based Industries as a % of Total Employment per Country



Source: WIPO, 2009.

5.7 The Direct and Indirect Macroeconomic Effects of Copyright-Based Industries in Slovenia

Chapters 5.1 to 5.6 contain the economic analysis of the direct contribution (i.e. the "direct effect") of copyright-based industries in Slovenia. However, the total effect of these industries also includes the so-called "indirect effect", which arises from the copyright-based industries relying on domestic inputs from the rest of the economy. For example, higher demand for products in core industries (e.g. the music industry) creates a higher demand for the final-use products of interdependent industries (e.g. the musical instruments industry) – this is the direct effect of copyright-based industries; a higher demand for products of interdependent industries (in our example the musical instruments industry) also creates a higher demand for industries in the rest of the economy (these might be, for example, the food industry, the banking industry, the construction industry, etc.) – this is called the "indirect effect" of copyright-based industries. In this chapter we apply input-output analysis, a comprehensive numerical tool that allows us to identify and estimate the direct as well as the indirect effects (operating via backward linkages throughout the economy) on key macroeconomic variables.

5.7.1 *Introduction with Methodology*

The input-output methodology[20] is one of the main tools of applied equilibrium analysis, providing a description and analysis of the complex production structure in an economy. The analysis is based on input-output tables, which reflect the flow of goods and services between all sectors of an economy over a period of time, as well as providing information on inputs that are used in production (e.g. intermediates, labor,

[20] The first input-output study dates back to Leontief (1936, 1966).

capital). All sectors are assumed to produce with linear Leontief production functions, where inputs are used in fixed proportions in relation to output, which can be summarized by a matrix of technical coefficients.

This allows us to systematically quantify the mutual interrelationships among the various sectors of the economy, in which production processes are always interdependent: to produce output, sectors require each other's inputs, and the indirect, economy-wide impacts of an industry arise from its backward linkages with the other sectors of production, which provide the required inputs for its output.

The total macroeconomic impact of copyright-based industries can thus be defined as a result of both the direct effect (direct production of copyright-based industries for final consumption) and indirect effects, with the multiplication process summarized by output multipliers, which compare the effects of an exogenous change of final demand (consumption, investment, exports) on the total, economy-wide output. An output multiplier for a sector *j* is thus defined as the total value of production in all sectors of the economy that is necessary at all stages of production in order to produce one unit of product *j* for final demand.

5.7.2 *Input-Output Analysis of the Macroeconomic Impact of Copyright-Based Industries in Slovenia*

In this section, we use input-output analysis to estimate the total macroeconomic effect of copyright-based industries in Slovenia. The analysis is based on 60-sector[21] symmetric input-output tables for domestic output in 2005[22] (the last year for which they are available), which are compiled by the Statistical Office of the Republic of Slovenia. Inputs for the analysis are data on five-digit industries, which have been aggregated to the two-digit level to be consistent with input-output tables. The underlying assumption, therefore, is that the production function of the particular five-digit copyright-based industry closely reflects that of the more aggregated, two-digit-level industry to which it belongs.

Results from the input-output analysis of the impact of copyright-based industries in Slovenia in 2007 are presented in Table 19. The estimates suggest that the total output production across the Slovenian economy, directly and indirectly related to copyright-based industries as defined in previous sections, amounted to EUR 5.02 billion in 2007 (representing 7 percent of total national production output), which is up 18 percent compared to the 2002 value in constant terms (with a real average yearly growth rate of 3.4 percent).[23] The resulting number of employees dependent on this production was 66,447, or 8.3 percent of the total workforce in Slovenia. The sum total for employee compensation reached EUR 1.5 billion, while the estimated effect on the net operating surplus in the economy was EUR 438 million, and EUR 787 million of imported intermediate goods and services were needed to ensure domestic production. The total value added, created across sectors linked to copyright-based industries throughout the economy, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP in 2007.

Table 19: Total (Direct and Indirect) Macroeconomic Contribution of Copyright-Based Industries in Slovenia, 2007

In million EUR	Total	Core industries	Interdependent industries	Partial industries	Non-dedicated industries
Direct production effect*	3,197.63	1,918.52	556.69	373.71	348.71
Total production effects	5,017.00	3,081.55	799.15	569.55	566.74
Output multiplier	1.57	1.61	1.44	1.52	1.63
Employment effect	66,447.45	40,365.60	10,599.49	8,001.17	7,481.19
% of total national employment	8.34	5.07	1.33	1.00	0.94
Use of imported products	787.32	332.91	278.60	105.23	70.59
Compensation of employees	1,514.99	1,014.78	180.44	170.62	149.15
Operating surplus, net	437.95	280.48	39.41	58.81	59.24
Total value added	2,350.49	1,548.77	272.06	263.79	265.87

[21] The production structure in Slovenian input-output tables is based on the 60-sector 2-digit SKD product classification.
[22] Source: Statistical Office of the Republic of Slovenia, 2008
[23] We found that while the input-output tables used in the analysis work quite well in describing the production and distribution structure in 2007, the structural changes in the economy since 2002 have been significant enough to render the imposition of a fixed structure through a single set of I-O tables for both 2002 and 2007 inappropriate. Any direct comparison would therefore be inconsistent and is omitted from the report in the absence of older, methodologically consistent I-O tables.

Table 19: Total (Direct and Indirect) Macroeconomic Contribution of Copyright-Based Industries in Slovenia, 2007 (continued)

Share of national VA (percent)	7.78	5.12	0.90	0.87	0.88
GDP impact **	2,410.31	1,585.62	278.09	268.48	278.12
Share of national GDP (percent)	6.99	4.60	0.81	0.78	0.81

Source: Statistical Office of the Republic of Slovenia (2009), author's own calculations
* The direct production effect does not contain the entire production as calculated in previous sections of this report. It only includes the part of production that is dedicated to the use of final consumption: this is defined as production spent by households, government and NPISH, production for exports, changes in inventories, as well as gross fixed capital formation and valuables.
* By definition, GDP includes value added plus net taxes on products

The estimated output multiplier of copyright-based industries in Slovenia (the ratio between total production across the economy and the copyright-based production for final consumption) is 1.57, which means that an increase of EUR 1,000 in copyright-based industries' final-use production will result in an increase in total output of EUR 1,570, when backward linkages with the rest of the economy are accounted for. While this result is lower than the average multipliers for e.g. construction in Slovenia, they are quite comparable to the estimated output multipliers for tourism in Slovenia (1.5-1.6) and to tourism's importance for the Slovenian economy in terms of both the direct and the total production effect.[24]

Further calculations were run separately for the four groups of copyright-based industries as defined by previous sections of the study. As can be seen from Table 19, the level of inter-sectoral dependencies differs significantly among them, with the core and non-dedicated groups of industries exhibiting above-average multiplication effects.[25]

For the group of core industries, the estimated output multiplier of 1.61 has resulted in an economy-wide output of EUR 3.1 billion in 2007, directly and indirectly related to this group of industries, which provided the equivalent of 40,366 full-time jobs (5 percent of national employment) and EUR 1 billion in employee compensation. Value added thereby created was EUR 1.55 billion, which is 5 percent of total national value added, while the share of GDP directly and indirectly linked to the core industries was 4.6 percent.

The contribution of the interdependent industries to domestic production was somewhat smaller. With an output multiplier of 1.44, total production in Slovenia increased by EUR 800 million in 2007, due to this group of copyright-related industries' own production as well as their entire input demand from the rest of the economy. This provided jobs for 10,600 people (1.33 percent of national employment) and ensured EUR 180 million in employee compensation. The total value added that was produced by the economy and linked to interdependent industries accounted for less than 1 percent of the total national value added, and contributed 0.8 percent to Slovenian GDP in 2007.

For the group of partial industries, the total direct and indirect production effect in 2007 was EUR 570 million, with an output multiplier of 1.52. The equivalent of 8,000 full-time jobs (1 percent of national employment) was secured by this production, resulting in EUR 39 million of employee compensation. The contribution to national value added was 0.9 percent (EUR 264 million) and the share in national GDP was 0.8 percent.

With an output multiplier of 1.63, the direct final-use production of the non-dedicated industries generated EUR 567 million in total related, economy-wide gross output, with an employment effect of 7,481 (0.94 percent of total national employment). The value added that was created by this production accounted for 0.88 percent (EUR 266 million) of national value added, while the contribution to Slovenian GDP in 2007 was EUR 278 million (0.81 percent).

[24] Source: Mihalić et al., 2009; Ministry for Economy, 2008.
[25] The distribution of the employment effect (number of people directly and indirectly linked to the production of copyright-based industries in Slovenia), calculated by 2-digit sectors, is presented in Table 27 in the Appendix.

5.7.3 *Sources used in Chapter 5.7*

[1] Statistical Office of the Republic of Slovenia (2008): Input-Output Tables for Slovenia. Statistical Office of the Republic of Slovenia. Ljubljana.

[2] Ministry of Economy (2008). Ocena ekonomskega pomena turizma v Sloveniji v letu 2003 in ekstrapolacija za leto 2006. Ministrstvo za gospodarstvo. Ljubljana.

[3] Mihalić, T., Šlander, S., Rebec, P., Slak, N. (2009): Ocena narodnogospodarskih učinkov projekta ZOI Bled 2018. Faculty of Economics. Ljubljana. Forthcoming.

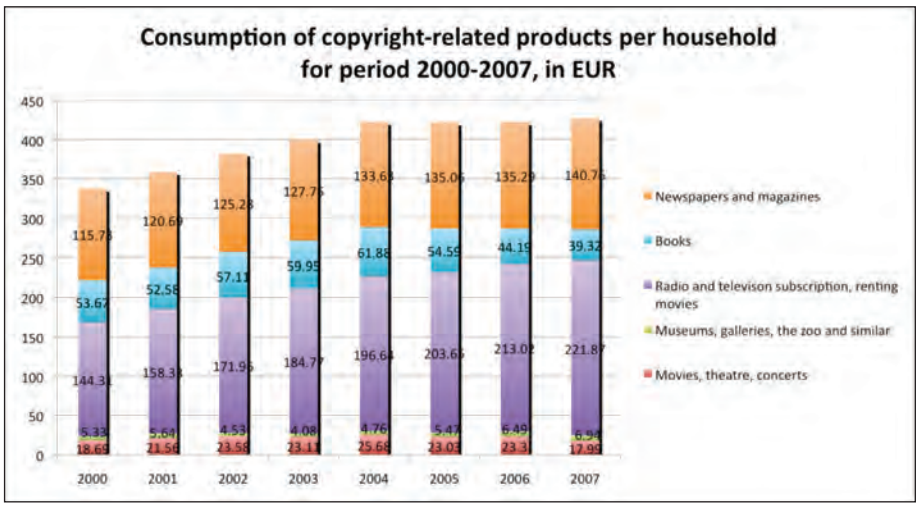
5.8 Developments in Selected Core Copyright-Based Industries

Due to the fact that data from the core copyright-based industries themselves was not readily available, we additionally analyzed data related to cultural activities that was obtained from the Statistical Office of the Republic of Slovenia (SORS). We were able to analyze in more detail the following four core copyright industries: press and literature; music, theatrical productions and opera; film and video; and radio and television.

In line with rising economic standards, Slovenian people spent more on copyright-related products. In 2007, the average Slovenian household paid almost EUR 430 for copyright-related products, such as newspapers and magazines, books, radio and television subscription, renting movies, visits to museums, galleries, theatres, and cinemas, and concerts. This is 12 percent more than five years earlier (2002) and 26 percent more than in 2000 (Chart 28). Since 2004, the annual amount spent per household for these products has stabilized at around EUR 425.

Households spent most money dedicated to copyright-related products on movie renting, radio and television subscriptions (around a half) and newspapers and magazines (a third). The least money was spent on visits to museums and galleries (about EUR 7 per year).

Chart 28: Household consumption of copyright-related products in Slovenia

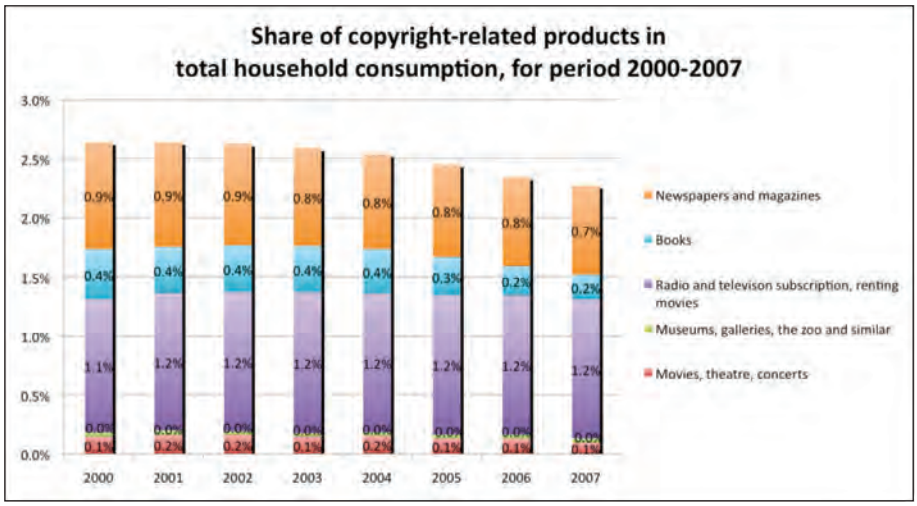


Source: Statistical Office of the Republic of Slovenia.

The amount spent on copyright-related products is not a very important part of total household consumption and the share of these products in total consumption steadily decreased throughout the whole period 2000 to 2007. Prior to 2005, this share was slightly above 2.5 percent, but it had decreased to around 2.3 percent by 2007 (Chart 29). The share of books reduced the most in this period (from 0.4 to 0.2 percent of total household consumption), while the share of the most important category, radio and television subscription, remained stable at around 1.2 percent of total household consumption. Similar to trends in other advanced countries, Slovenian people prefer to watch more television and read fewer books, thus they are willing to spend money on more expensive cable and internet television subscriptions to the detriment of books. Interestingly, the attendance at and number of books borrowed from libraries is increasing year on year

(Statistical Yearbook of the Republic of Slovenia 2008, pp. 167-174), which shows that Slovenian people do not want to spend money on buying books, but still want to read them.

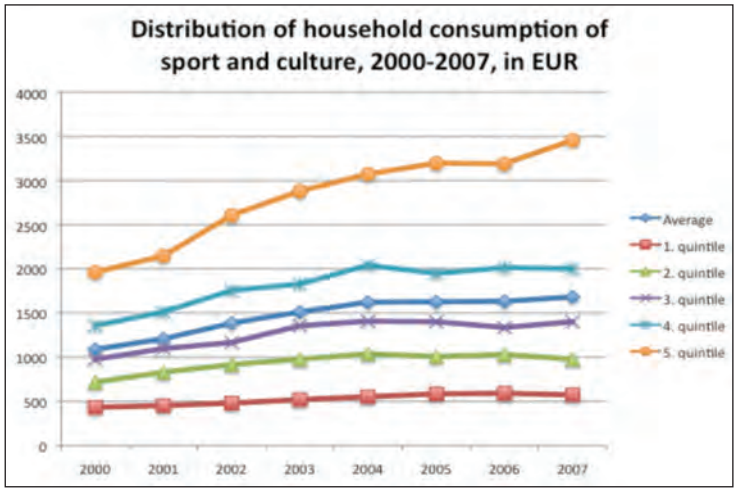
Chart 29: Importance of copyright-related products in total household consumption in Slovenia



Source: Statistical Office of the Republic of Slovenia.

Copyright-related products are not goods that are essential for everyday life and are mostly consumed as part of leisure time. Households with a higher economic standard are thus more inclined to spend money on these products. Slovenian data confirm that such households spend absolutely and relatively more on culture and sports than other households (Chart 30).

Chart 30: Distribution of household consumption of sport and culture



Source: Statistical Office of the Republic of Slovenia.

The gap between the top 20 percent of households (with the highest total consumption) and other households widened in the period 2000 to 2007. In 2007, these households spent around double the amount spent by the average household and around six times the amount of the bottom 20 percent of households. The gap has especially increased since 2004, when the amounts spent by other households remained fairly stable, but the amount spent by the top 20 percent of households further increased.

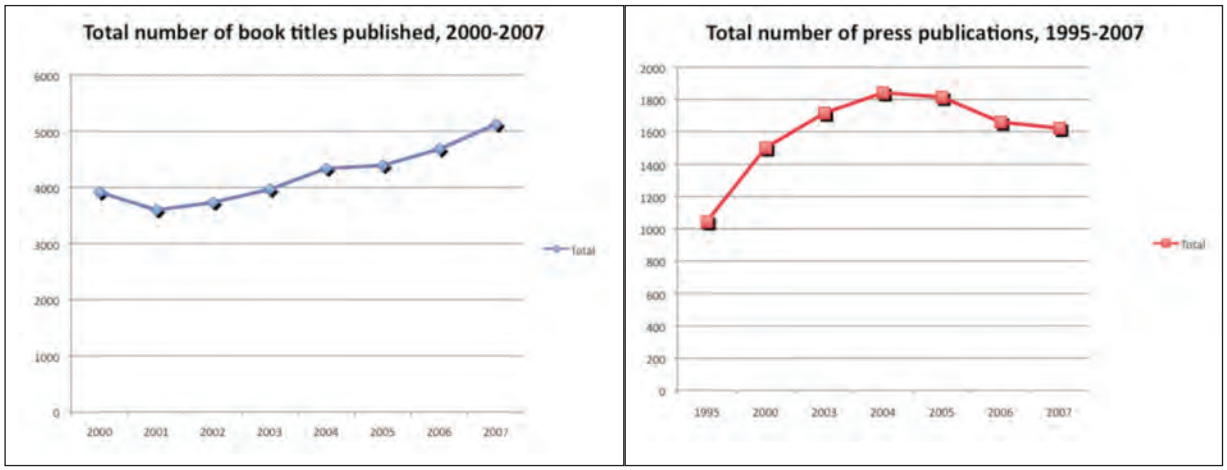
5.8.1 *Press and Literature*

Press and literature – the key core copyright industry in Slovenia – includes companies that print, publish or sell books, newspapers and magazines and similar products. Of these companies, printing companies have

the most important share, followed by companies mainly selling these products. To get a better perspective on the copyright-based content in this field of core copyright industries, we have analyzed quantitative data related to publishing activities.

Companies are publishing ever more books and brochures, while the trend for press publications is negative. The number of books published steadily increased in the period observed, while the number of printed serial publications decreased after 2004 (Chart 31). In 2007, more than 5,100 book titles were published, which is 9.5 percent more than a year before and 37 percent more than five years before. Press publications, however, numbered more than 1,600 in 2007, which is around 2 percent less than a year before, but almost 12 percent less than in 2004, when the peak of press publications was reached.

Chart 31: Publishing of books and press publications between 2000 and 2007



Source: Statistical Office of the Republic of Slovenia.

Books

Book publishing is focused on publishing new works that had not been present previously in the Slovenian book market. Throughout the whole observed period, around 85 percent of published book titles were first editions, while the remaining 15 percent were re-editions (Table 20).

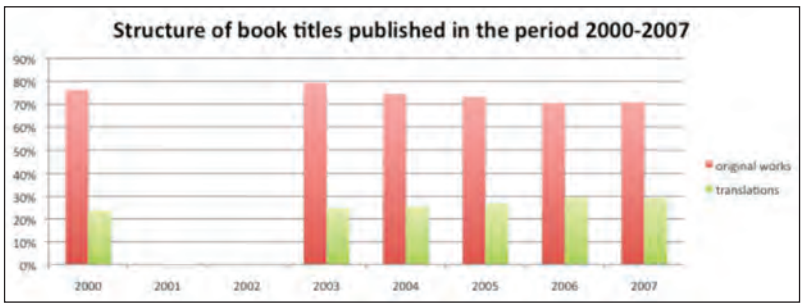
Table 20: Number of book titles published in the period 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Total	**3917**	**3598**	**3735**	**3965**	**4340**	**4394**	**4684**	**5129**
first edition	3336	–	–	3458	3686	3775	4053	4378
re-edition	581	–	–	708	654	619	631	751
Total	**3917**	**3598**	**3735**	**3965**	**4340**	**4394**	**4684**	**5129**
original works	2985	–	–	3142	3231	3217	3306	3631
translations	932	–	–	980	1109	1177	1378	1498

Source: Statistical Office of the Republic of Slovenia.

Further inspection of the books published reveals that the trend in book publishing is moving slowly toward more translations at the expense of original works, although the latter still dominate. The structure of published books was around 75:25 in favor of original works, but by 2007 it had shifted to 70:30, still in favor of original works (Chart 32).

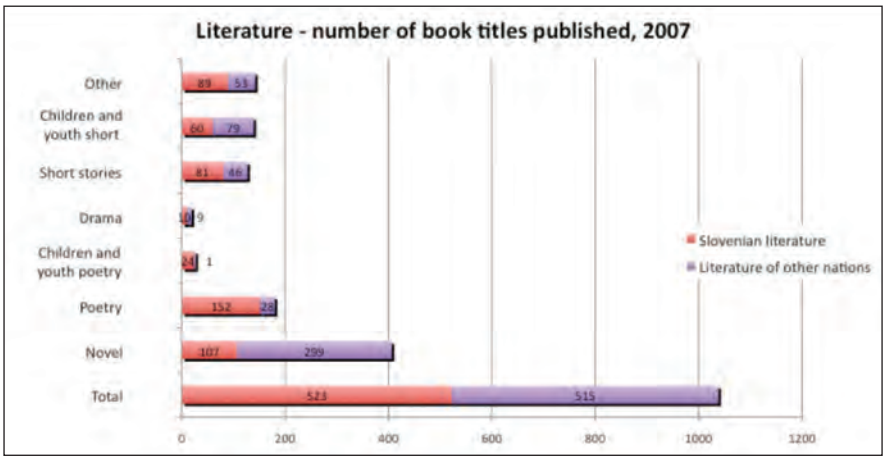
Chart 32: Structure of published books: original works vs. translations



Source: Statistical Office of the Republic of Slovenia.

Literature represents only a minor part of all published books. In 2007, around 20 percent of the total number of published book titles pertained to this category: the rest were various professional or specialty books, manuals, textbooks and similar. Of the literary works, around half were Slovenian and half foreign (Chart 33). Novels were by far the most popular type of literature (40 percent of total literature book titles), but only around a quarter of them were Slovenian. Slovenian works, on the other hand, dominate in poetry book titles, where around 85 percent of book titles are Slovenian.

Chart 33: Structure of literature book titles by type of literature



Source: Statistical Office of the Republic of Slovenia.

We can conclude that book production is increasing in scope in spite of the trend for consumers to reduce their expenditure on books. It is hard to give an accurate explanation for this without a further analysis of book prices and other market determinants, since the observed lower amount spent on books – in the presence of a wider choice of book titles, we can safely say it is mostly demand driven – could be either a result of the lower quantity of books bought or of lower prices in the market. Part of the explanation lies also in the well-developed network of public libraries, which provides a good choice of popular literature, thereby reducing the need to buy books in order to read them.

On the other side of the market, the wider choice of book titles offered might result from publishing houses' attempts to overcome the decreasing trend in reading (and buying) books by attracting a wider reading population. Writers in our panel of industry representatives complained that publishers in fact appropriate more and more copyright, to the disadvantage of authors. Authors also do not feel that copyright right-management organizations act much to their benefit and point out the lack of agency services in Slovenia that are available to authors. Consequently, they are left to themselves and since the majority of them are not full-time professionals, they lack the incentive to invest enough effort in learning about copyright issues to take full advantage of the copyright protection offered by the law. One member of our panel, a professional writer, believes publishing houses readily take advantage of authors' ignorance and therefore do not take proper acts to acknowledge authors' rights.

Press

Press publications decreased in the last three years of the observed period. Among various types of press publications, around a quarter represented 'other' publications and three quarters 'serial' publications (Table 21).

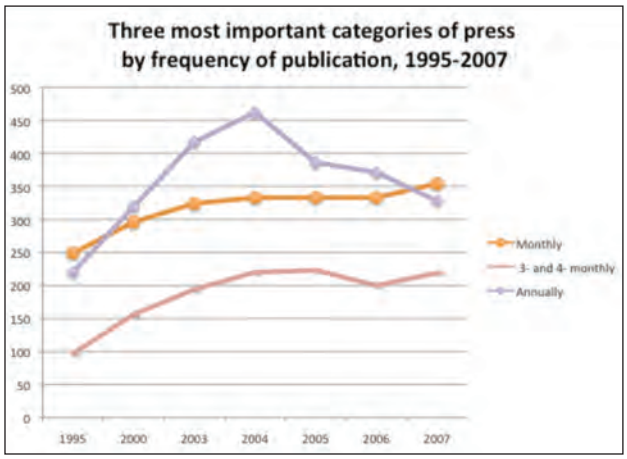
Table 21: Press by frequency of publication, 1995-2007

	Total	Daily	Twice a week	Weekly	Fortnightly	Monthly	Bi-monthly	3- and 4-monthly	Semi-annually	Annually	Other
1995	1045	8	4	42	40	249	55	97	37	220	293
2000	1501	6	5	50	34	296	64	156	74	319	497
2003	1716	6	4	59	31	324	85	194	88	417	508
2004	1842	6	4	59	37	333	85	220	90	462	546
2005	1815	10	2	60	46	333	80	223	95	386	580
2006	1660	9	2	56	42	333	72	200	91	371	484
2007	1623	14	2	58	44	354	101	219	95	328	408

Source: Statistical Office of the Republic of Slovenia.

However, the decrease in the total number of press publications was mostly a result of a lower number of 'other' and annual publications. Two other large categories of serial publications, monthly and 3- and 4-monthly publications, were both increasing for virtually the whole observed period between 1995 and 2007 (Chart 34). Also, the number of daily publications increased in 2007 to 14.

Chart 34: Three largest categories of serial publications



Source: Statistical Office of the Republic of Slovenia.

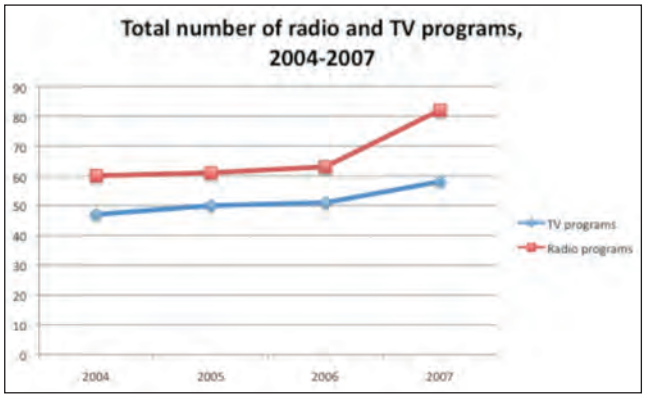
The average reach among daily newspapers is 9.3 percent of the population aged between 15 and 75. The most popular daily newspaper has a high 25 percent reach and is preferred by people with upper secondary educations or less. The second most popular daily newspaper has a 13.5 percent reach and is preferred by people with university educations. Among weekly publications, weekly supplements to daily newspapers lead in the number of readers; among regular weekly publications, free weekly newspapers – a novelty in Slovenian mass media markets – attracted a large number of readers in recent years (from 2007 onward). Interestingly, among readers of daily newspapers, more than half are men, and among readers of weekly, bi-weekly or monthly publications, more than half are women (Statistical Yearbook of the Republic of Slovenia, 2008).

Household expenditure on newspapers and magazines slightly decreased over the period 2000 to 2007, but the relative share of total consumption remained more stable, at around 0.8 percent. It seems that in spite of a greater offer of daily, weekly and monthly publications, people are not buying more publications, which indicates that the market is probably saturated and that people are accustomed to their preferred newspapers and magazines. Yet, the example of free newspapers shows that an innovative approach and attention to changes in modern lifestyles can lead to a larger audience.

5.8.2 *Radio and Television*

Radio and television was among the top five most important core copyright industries according to all economic performance indicators in our study and had the third-highest value added among core copyright industries. Radio and television subscription is also the largest item, among copyright-related products, in total household consumption in Slovenia. Activity in this industry grew over the last decade. The total number of radio and TV programs was constantly increasing in the observed period 2004 to 2007, with the highest rise in 2007 (Chart 35). In 2007, there were 82 radio programs and 58 TV programs.

Chart 35: Radio and television programs in Slovenia

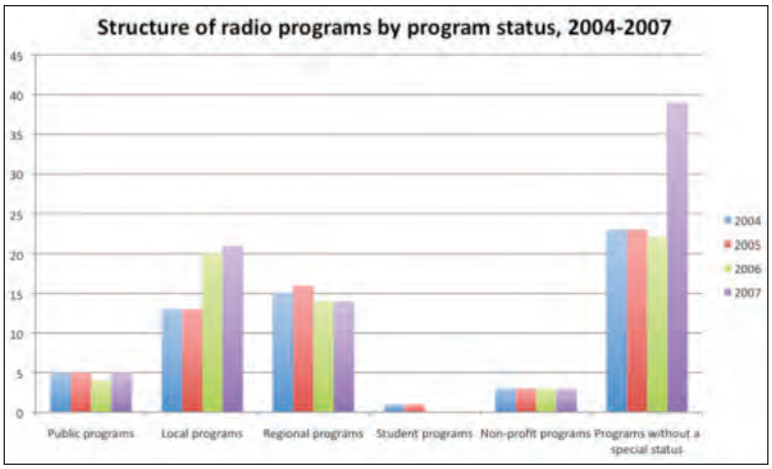


Source: Statistical Office of the Republic of Slovenia.

Most of the radio programs are commercial programs, without special status (48 percent in 2007, 35 percent before 2007), followed by local and regional programs (around 25 and 17 percent in 2007, respectively). Five public programs were broadcast in the observed period. Until 2005 there was also a special student program, which lost its special status and was later reclassified into a program without special status.

In recent years, there was a large increase in commercial and local programs – most notable is the increase in commercial programs in 2007 by almost 80 percent compared to the year before – while the number of regional programs slightly decreased. The reason for such a large increase is not clear. There were no major changes in the legislation during these years; however, the reason for the increase in new programs might be the change of state policy, which claimed support for more media diversity and offered more public funding to newly established media.

Chart 36: Radio programs by program status

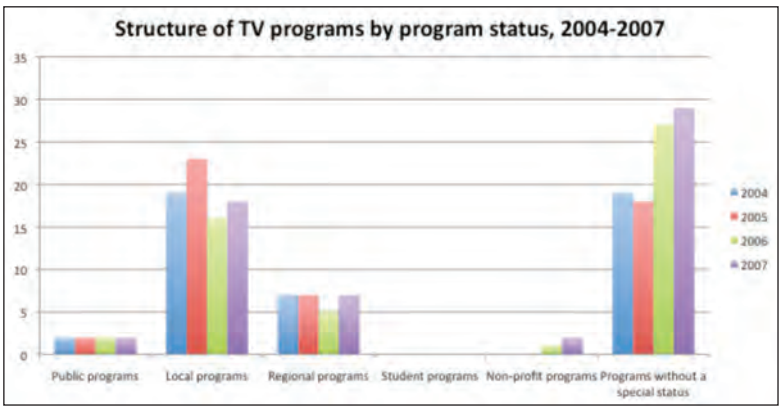


Source: Statistical Office of the Republic of Slovenia.

Commercial programs without special status and local programs also dominate among TV programs. Around half of all TV programs in 2007 were commercial programs without special status and around 30 percent of

all programs were local programs. Two public TV programs were broadcast in the observed period. As with radio programs, there was a large increase in the number of commercial programs without special status in 2006 and 2007. There were fewer local programs, however, in these two years than in 2004 and 2005.

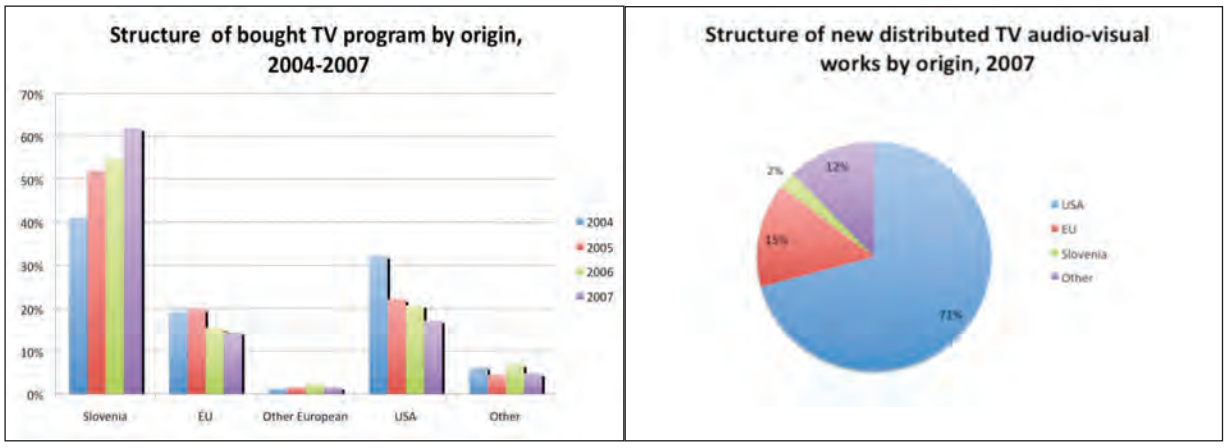
Chart 37: TV programs by program status



Source: Statistical Office of the Republic of Slovenia.

Besides Slovenian programs, many households subscribe to cable or internet television providers offering a wide choice of national and specialized TV programs. Slovenian programs also offer foreign produced content, but the trend is toward reducing the share of such content in favor of domestic production. In 2007, a bit less than 40 percent of bought TV programs were foreign productions; out of this number, around half were from EU countries and half from the USA (Chart 38, left panel). The share of American production was decreasing constantly in the period 2004 to 2007 to the benefit of Slovenian production.

Chart 38: Origin of TV program



Source: Statistical Office of the Republic of Slovenia; SORS, Rapid report No. 25/2009.

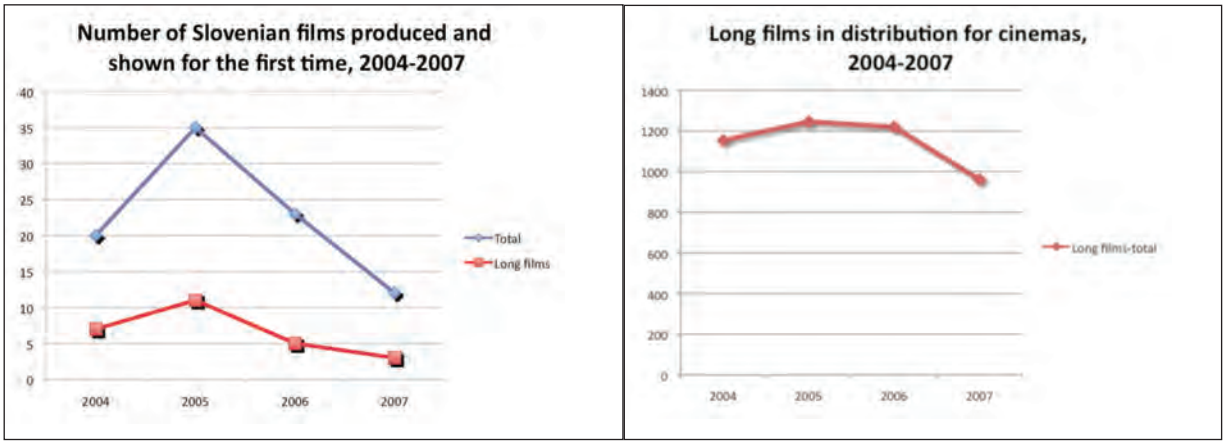
However, if we look at the structure of new distributed TV audio-visual works, American production by far dominates. In 2007, around 70 percent of distributed audio-visual works for public television broadcasting were from the USA, around 15 percent from EU countries, and only around 2.4 percent from Slovenia (Chart 38, right panel).

5.8.3 *Film and Video*

Film and video is the third most important employer among core copyright industries and is ranked among the top five core copyright industries according to all economic performance indicators in our study. This industry includes production, distribution and public showing of films. Overall, the trends in this industry are negative: there are fewer Slovenian films being produced and fewer films being distributed, and the cinema audience is shrinking.

The production of Slovenian films was decreasing in the last years of the observed period 2004 to 2007 (Chart 39, left panel). In 2007, 12 films were produced; of these, only 3 were long films. This is almost half the number produced a year before and only a third of what was produced two years earlier. The distribution of all long films was decreasing in this period as well (Chart 39, right panel), with a significant drop of around 20 percent in 2007.

Chart 39: Production and distribution of films in Slovenia



Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

There is, however, a tendency toward the distribution of more new films. In 2004, the ratio between new and old films in distribution was close to 60:40; by 2007, this ratio had changed to around 70:30 (Table 22).

Because of their small number, Slovenian films do not attract a high number of visitors; in a typical year, this means around 3 percent of total attendance (Table 22). However, domestic films can become extremely popular among the Slovenian audience, which was proved between the fall of 2007 and 2008, when one Slovenian film broke records in attendance and became the most popular film of all time in Slovenian cinemas.

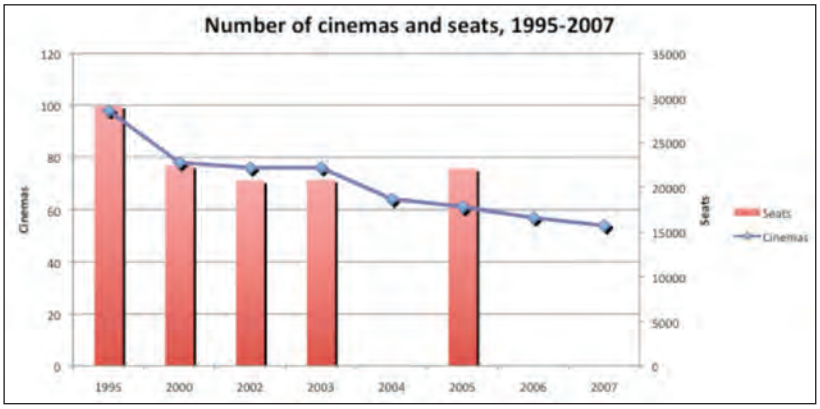
Table 22: Activity of film and cinema industry, 2004 – 2007

	Production of Slovenian films		Distribution of films			Attendance of long films		
	Total	Long films	Total	New films	Old films	Total	Slovenian films	Foreign films
2004	20	7	1153	728	425	3,003,516	101,112	2,902,404
2005	35	11	1245	743	502	2,443,776	72,239	2,371,537
2006	23	5	1219	759	460	2,685,234	23,617	2,661,617
2007	12	3	960	689	271	2,406,568	135,965	2,270,603

Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

Also, the number of cinemas decreased over the period 1995 to 2007 (Chart 40). In 2007, only 54 of them were operating, which is a 30 percent fall from 2002. The number of seats was also declining until 2003, after which it slightly increased.

Chart 40: Cinemas and seats



Source: Cenex/Slovenian Film Fund, Statistical Office of the Republic of Slovenia.

This trend reflects the fundamental change in consumer preferences regarding cinemas and the way modern films are shown as part of a complete 'movie-theatre experience'. Large cinema complexes with additional services such as restaurants, nightclubs, and shops have attracted audiences more than many small local cinema theatres with obsolete fixtures did. Larger cinemas have thus replaced many smaller ones. However, due to the increasing popularity of home-theatre audio-visual systems and greater availability of films via the internet, fewer people choose to see films in cinemas.

5.8.4 *Music, Theatre Productions, Opera*

The category of music, theatre productions and opera was not in the top five core copyright industries for any of the economic performance indicators used in this study. However, it was the largest among the rest of the core copyright industries and definitely has a high copyright content; therefore we also analyze it here in more detail.

Theatre

Generally speaking, the trends are negative for theatre and music activity. Over the period 2004 to 2007, fewer new works were performed in theatres, there were fewer performances at theatre headquarters, and attendances went down (Table 23).

Table 23: Activity of theatres by type of theatre

		Theatres – total	Drama	Opera	Ballet	Dance	Puppet	Experimental	Other theatres
New works performed	2004	195	81	5	4	44	33	10	18
	2005	246	95	9	4	42	30	13	53
	2006	229	83	9	4	45	35	15	38
	2007	221	76	8	6	68	21	26	16
Performances at the theatre headquarters	2004	6,124	2,697	57	37	257	704	2,161	211
	2005	5,226	2,691	52	45	267	689	1,123	359
	2006	4,264	2,307	117	76	149	1,279	15	321
	2007	3,864	2,082	100	73	164	1,127	53	265
Performances by other companies at the theatre headquarters	2004	793	411	7	4	83	199	1	88
	2005	830	409	3	5	116	207	6	84
	2006	741	401	11	6	42	193	–	88
	2007								

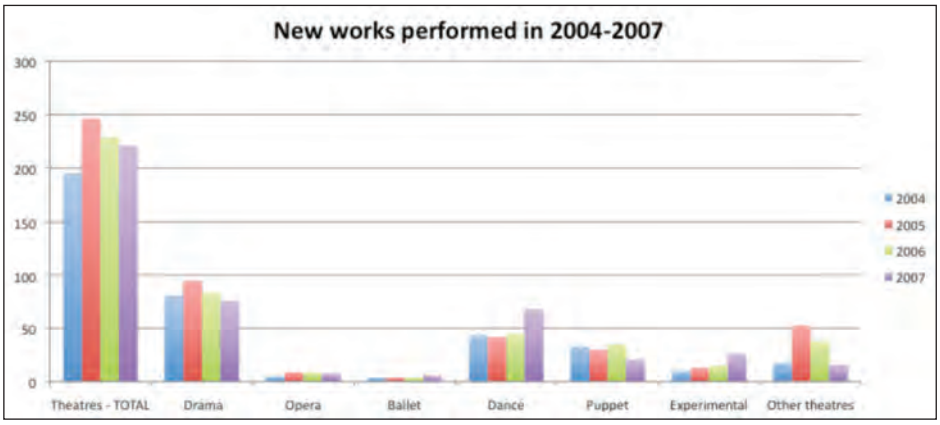
Table 23: Activity of theatres by type of theatre (continued)

Attendance	2004	719,450	402,446	56,163	18,560	33,910	143,341	3,490	61,540
	2005	928,629	493,758	43,822	37,088	45,773	164,672	2,808	140,708
	2006	842,256	418,140	80,804	49,022	25,329	163,595	4,550	100,816
	2007	822,351	400,190	91,847	45,767	21,440	136,806	6,633	119,668

Source: Statistical Office of the Republic of Slovenia.

Drama, dance, and puppet theatres dominate in the Slovenian theatre world, so the highest number of new works were produced in such theatres. Closer analysis shows that fewer new works were performed in 2007 than in previous years in all types of theatres, except for dance and experimental theatres (Chart 41). The latter two types of theatres managed to increase the number of new works almost every year.

Chart 41: New works performed

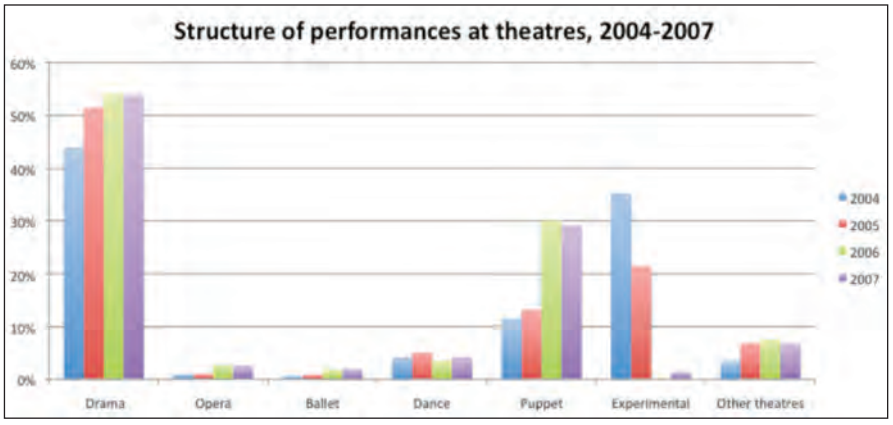


Source: Statistical Office of the Republic of Slovenia.

When the total number of performances is used to compare the activities of different types of theatres, we can see that drama theatres are by far the most important type of theatre, with over 50 percent of all performances (Chart 42). Their relative importance increased during the observed period, but the number of performances decreased.

The second most popular type of theatre is puppet theatres, with around 30 percent of all performances in 2006 and 2007. Other types of theatres, like opera, ballet, dance, experimental, and other types, each represented less than 10 percent – most of them less than 5 percent – of total performances. There was a huge increase in the number of performances in opera, ballet, and puppet theatres in 2006. In the same year, there was a sharp decrease in the number of performances in experimental theatres, followed by only a slight increase in 2007.

Chart 42: Performances at theatres

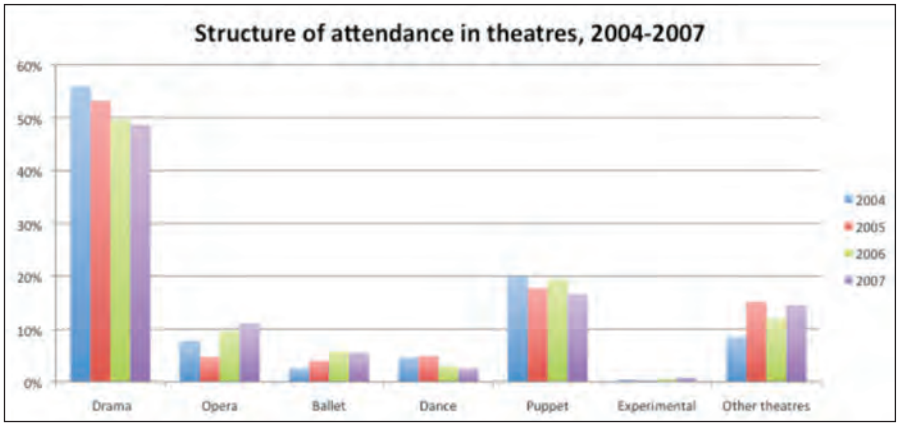


Source: Statistical Office of the Republic of Slovenia.

Attendance is highest in drama theatres, but between 2004 and 2007 it became smaller each year (Chart 43). On the other hand, the audiences of opera and ballet theatres increased over this period and have reached an over-proportional share of attendance relative to the share of performances, meaning that they have a higher average attendance of their performances than, for example, drama theatres.

Puppet theatres greatly increased their number of performances in 2006 and 2007, but their attendance did not follow this rapid growth; in fact, it even decreased by 16 percent in 2007 compared to a year before. Experimental theatres had low absolute attendance, but this increased in 2006 and 2007 when the number of performances dropped, so the average attendance per performance improved significantly.

Chart 43: Attendance in theatres



Source: Statistical Office of the Republic of Slovenia.

Music

Statistical data on music activity cover only the activity of orchestras and choirs that report to the Statistical Office, and there is no data available – either from the Statistical Office or collective management organizations – for the activity of music publishers (e.g. the number of records sold; total number of musical events, such as non-orchestra concerts; and other uses of music, e.g. ringtones, film music, etc.). The analysis in this subsection is thus very limited.

Over the period 2004 to 2007 trends were generally positive for the activities of orchestras and choirs (Table 24). The number of musical works performed increased by 38 percent between 2004 and 2007. Of these musical works, in 2007, 44 percent were by Slovenian authors. The number of concerts held at headquarters and attendance at these concerts increased as well. Statistical data show a more than five-fold increase in attendance in 2006.

Table 24: Activity of orchestras and choirs, 2004-2007

	Number of musical works performed	Number of musical works performed – Slovenian authors	Own concerts at the orchestra / choir headquarters	Attendance at own concerts at the orchestra / choir headquarters – total
2004	1,425	731	96	11,840
2005	1,410	713	97	13,000
2006	1,787	631	100	70,190
2007	1,967	870	115	63,371

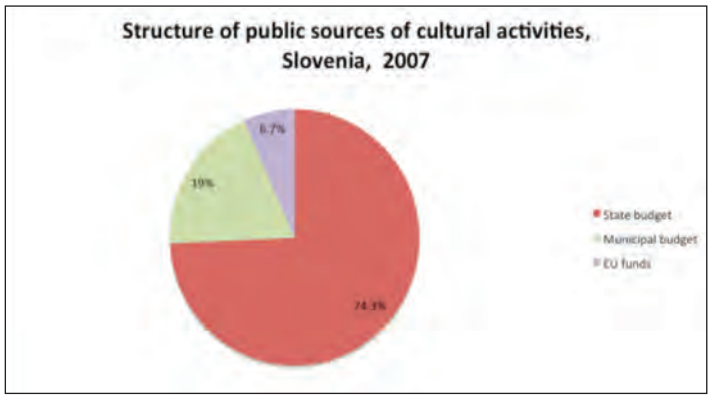
Source: Statistical Office of the Republic of Slovenia.

The musicians in our panel of industries' representatives were fairly satisfied with the copyright protection and collecting system by itself – contrary to writers – but pointed out that radio stations in particular disrespect the obligations imposed on them by the Copyright Act.

5.8.5 *Revenues*

We have analyzed the structure of revenues for cultural activities to get a better understanding of their operation. Overall, cultural activities combined received more than EUR 121 million from public sources in 2007. Around 74 percent of this was from the state budget, 19 percent was from municipal budgets and 7 percent came from EU funds (Chart 44).

Chart 44: Public sources of cultural activities

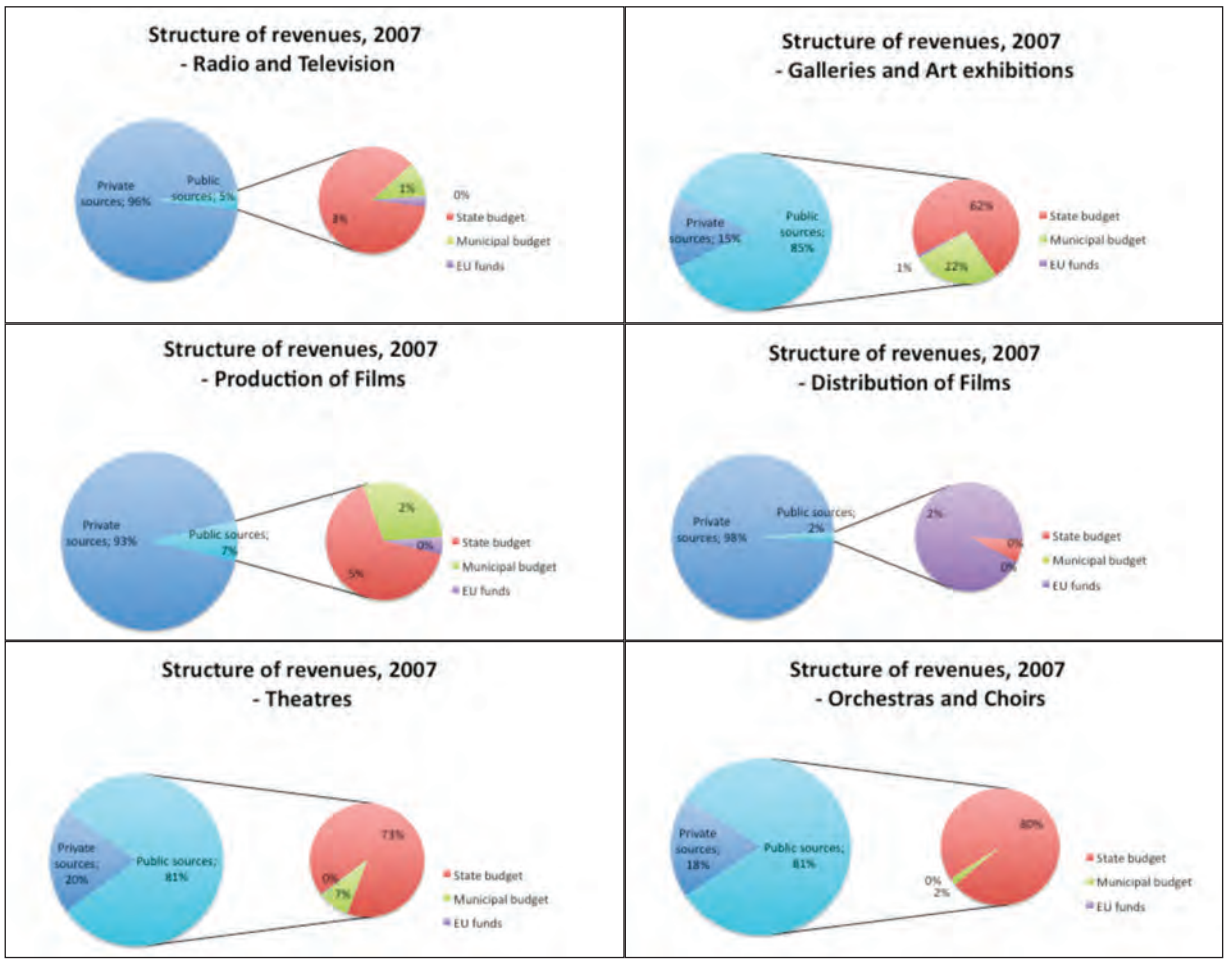


Source: Statistical Office of the Republic of Slovenia, Rapid reports No.25/2009.

Looking at the data in more detail (Chart 45), we can see that radio and television, production of films, and distribution of films had mostly private sources of revenues. In 2007 they represented more than 95 percent of all revenues. The state budget is the predominant type of public source for these industries, except for distribution of films, where EU funds play this role.

Galleries and art exhibitions, orchestras and choirs, and theatres received more than 80 percent of their revenues from public sources in 2007. For orchestras and choirs, almost all revenues came from the state budget. Theatres got around 7 percent of revenues from municipal budgets and more than 70 percent from state budgets. Galleries and art exhibitions had a higher share of municipal sources, which represented around a quarter of all public sources, while the rest came from the state budget.

Chart 45: Structure of revenues for different cultural activities



Source: Statistical Office of the Republic of Slovenia.

We can see that industries that are predominantly privately financed are the ones that are – as our results in Chapter V show – at the same time more productive and have a greater economic contribution. However, the direction of the causal relationship is most likely two-way: on the one hand, more productive industries attract more private funds, but on the other hand, privately financed industries are encouraged to be more productive in order to keep private sources of finance.

5.8.6 *Copyright Awareness and Enforcement*

After consultations with representatives (authors) from core copyright industries, it was discovered that the awareness of copyright protection among authors is alarmingly low. Not only do artists feel impeded because they lack appropriate knowledge of the scope of their rights when they negotiate with publishers, record labels, producers or other users of their work, but they also very rarely seek help, for example by hiring attorneys or agents to help them stop the infringements of their copyright. Almost all of the authors interviewed for this study pointed out that they do not benefit from the right-management organization, which should primarily be there to represent their interests. Insufficient knowledge of the existing legal framework and methods of effective protection was underlined by almost all authors as a major disadvantage, especially when it comes to infringements of their rights. Few of these authors ever seek legal help from attorneys or their professional organizations, because most of them expect to have no efficient redress against infringers and/or because they could not afford costly legal proceedings.

This situation is of course reflected on the side of the users of copyright content. As an example, numerous owners of bars and restaurants, hairdressers, hotels and other public spaces where music is played steadily resist payment of due royalties to collective management organizations. The same applies to sellers and

importers of blank media, who are obliged to pay a fee for each blank medium sold. Even the state-owned national broadcaster is said to resist providing right-management organizations with adequate lists of broadcasted works for several years and thus avoids payment of due fees.

From these cases alone, it is obvious that it is of vital importance to start a public campaign to raise general public awareness of the importance of copyright. Such a campaign should be supported by information about the losses caused by infringement of copyright and its effects. The government or other public institutions should start supporting short- and long-term educational activities targeting authors and right-holders, for instance information points for self-employed artists, workshops for students and young artists, free legal aid for artists and similar. The state-owned or state-run institutions (like national radio and TV, national theatres, and orchestras) should be set as examples of best practices, instead of following the mainstream path of infringers of copyright and related rights.

Professional organizations of authors and other right-holders should be encouraged to connect with umbrella organizations that would work jointly and provide their members with adequate advice. Such organizations could, in certain outstanding cases, start class actions in their interest, collect and spread information on infringements or initiate other legal actions. Once the creative force is aware of the importance of their intellectual property, they will strive to negotiate better work conditions and become diligent when assigning and transferring their copyrights to others. In the cases of imminent infringements, they might be able to react fast and prevent or at least adequately remedy the damages caused.

Competent governmental authorities (like the intellectual property office, ministry of culture, market inspectorate, police investigators, public prosecutors and others) should exchange information and plan joint activities and other common actions against infringers of copyright. In particular, regular and consistent actions against infringers in the cases of mass unauthorized use of copyright materials would be necessary (for example via internet services or by more traditional channels like copy shops, TV and radio stations, importers and sellers of blank media, etc.).

Considering the costly and long-lasting court procedures and unforeseeable outcomes, it seems likely that increasing the competence of market inspection or other administrative bodies could give faster results. The inspectors who work in the field can be much faster than the courts in observing possible irregularities and collecting relevant data and evidence. Because inspectors can impose penalties immediately (on the spot), they may be more efficient in preventing further infringements and damages. However, it is noted that at present the market inspectorate dedicates only a very small portion of its activities to copyright infringements and their actions are limited to certain users (i.e. companies using computer programs, and bars and restaurants). Therefore, the extension of the existing legal framework, which defines the competences and obligations of the market inspectorate, should be reconsidered, along with the possibility of training more inspectors and assigning them to work on particular cases of copyright infringement in regular and systematic actions.

The majority of courts in Slovenia are still fighting a backlog of court cases and therefore in extreme cases it may take more than two years before the first hearing takes place at court. Additional time is then needed before a binding decision is made and executed. Therefore, right-holders rarely seek redress from the courts and are often disappointed if the decisions are obsolete because of the lapse in time, or are inconsistent with the previous case law. This could be conquered if courts organized specialized departments for intellectual property and copyright cases and provided regular training to the judges. In addition, court decisions relating to intellectual property and copyright could be collected, published and reviewed regularly in order to provide a more comprehensive, consistent and widely available case law.

The existing data on copyright-related criminal offences shows a very low number of imposed criminal sentences. The reason for such a low number of sentences is probably the overly narrow definition of the criminal act enacted by the Slovenian Criminal Code. The Criminal Code only incriminates those infringements of copyright that were made with the intention of sale. Such a definition therefore excludes a large number of infringements that are made in order to use or enable others to use (without selling) a copyright-protected work. Moreover, such intention of sale is not "required" for infringements of related rights, which is rather inconsistent. Right-holders, as well as the Office of the State Prosecutor, have already complained about this; therefore, a review of the existing criminal code is expected. In addition, better cooperation between the inspectors, police and state prosecutors should be encouraged.

The present problems of collective management of copyright and related rights will have to be addressed more efficiently. Alleged non-transparency of collective management organizations and the absence of any effective control over their activities (in particular distribution of collected fees) is causing reluctance on the side of the authors to mandate such organizations to manage their rights, and so they mandate collective management organizations in other countries instead, decide to manage their rights individually, or even allow free use of their protected work. It is evident that the governmental authorities (most likely the Slovenian Office for Intellectual Property) should be given greater powers in relation to the supervision of the right-managing organizations and that some pressure should also be applied to the users by other state institutions (i.e. the competent state authority could force those TV and radio stations which avoid reporting and paying due fees for used copyright works to comply with legislation). At the same time, the authors (members of the right-management organizations) should be motivated to take some action and demand transparent and efficient licensing of their rights.

It is apparent that copyright legislation will need to be amended again, but more caution should be taken in order to introduce amendments that are likely to have any effect. In particular, those provisions of the existing Copyright Act that are not (fully) implemented in practice should be assessed before any further amendments are planned.

6. Conclusions and Recommendations

This is the first study of copyright-based industries in Slovenia based on the WIPO methodology. Therefore, the research team was faced with the demanding task of setting foundations for potential successive studies. The most challenging part of the process was defining the copyright-based industries, finding them in the statistical classification codes, allocating them into the four industry groups, and assigning appropriate copyright factors. Besides the official statistical data, it was very difficult to obtain any additional data and information from the industries themselves or their collective management organizations. Thus, the core analysis is based on official statistical data. However, to get additional insight into the copyright-based industry situation, we interviewed representatives of selected industries.

The main conclusion based on the analyzed statistical data is that copyright-based industries are significant to the Slovenian economy. In 2007, the total contribution of these industries was EUR 4.2 billion in production output, which represents 5.8 percent of national production output. Furthermore, these industries contributed EUR 1.7 billion in value added or 5.1 percent of national GDP. In terms of employment, copyright-based industries generated 54,506 jobs, which represented 6.8 percent of national employment. Our study showed that the productivity of copyright-based industries, measured as value added per employee, was EUR 32,025, which was below the national average of EUR 37,963. The balance of foreign trade of copyright-based industries was negative and amounted to EUR 279.1 million. This means that more copyright-protected goods are imported into Slovenia than are exported out of Slovenia. Below-average productivity and a foreign-trade deficit indicate that more efficient production and creation of higher-quality copyright-based products and services are desired.

The trend between 2002 and 2007 was mostly positive, but lower than the average for the economy. The total output of copyright-based industries grew on average by 3.1 percent per year in real terms, while the average annual real growth rate for the Slovenian economy was 4.5 percent. The average annual real growth rate of value added was 3.2 percent and was slightly below the national average real growth rate, which was 3.3 percent. These industries on average created more jobs over the observed period. The annual average growth rate in employment for copyright-based industries was 2.2 percent, while the economy average was 1.1 percent. Consequently, the average annual real growth of productivity was much lower for copyright-based industries (1 percent) than for the Slovenian economy (2.2. percent).

The economic importance of copyright-based industries is best understood by comparing their contribution to other groups of industries. Our findings show that the contribution of copyright-based industries to national GDP is similar to the contributions of public administration and common social services. The contribution is higher than the contributions made by education; health and social work; financial intermediation; electricity, gas and water supply; hotels and restaurants, etc. When other indicators of economic contribution are used for comparison, the conclusions are similar.

Comparing Slovenia to other national studies, the contribution of copyright-based industries to GDP in Slovenia is slightly lower than the average for the 21 countries that have conducted a similar WIPO-methodology-based study (5.5 percent). In the ranking of countries, Slovenia comes in 11th place. Comparing the contribution to EU countries, copyright-based industries in Hungary, the Netherlands, and Romania are contributing relatively more to their respective economies, while these industries are contributing less to their respective economies in Latvia and Bulgaria. In comparison to the most developed countries in this respect (USA and Australia), Slovenian copyright-based industries contributed only half as much to national GDP.

Among copyright-based industries, core industries make the largest economic contribution to the Slovenian economy. In 2007, core industries contributed approximately two thirds of the total contribution of copyright-based industries to GDP. Within core industries, press and literature was the most important in terms of the creation of output, value added and employment; however, software and databases, as a young and growing industry, is rapidly gaining economic importance. Among cultural (or media) industries in the core copyright industries, the ones that are mostly privately financed (film and video; radio and television) have a greater economic contribution than the mostly state-financed industries (theatres; orchestras and choirs; art galleries). Interdependent industries contributed only 12.4 percent to the total value added created by copyright-based industries. The most important industry within this group was the paper industry, which

represented approximately one third of the total value added created by the interdependent industries. Partial industries contributed 10.7 percent, while non-dedicated industries contributed 11 percent to the total value added of copyright-based industries. Within partial industries, architecture generated almost 72 percent of the total value added created by partial industries.

To identify and estimate the total effect of copyright-based industries (i.e. the direct effect, as well as indirect effects, operating via backward linkages throughout the economy) on key macroeconomic variables, we applied input-output analysis. The results suggest that the total output impact of copyright-based industries across the economy in 2007 represented around 7 percent of total domestic production, with an employment effect of 66,447 jobs (8.3 percent of total employment in Slovenia). Thus, the total value added that was created, which was directly and indirectly linked to copyright-based industries, was EUR 2.35 billion, accounting for 7.8 percent of national value added and 7 percent of Slovenian GDP in 2007.

The estimated output multiplier of copyright-based industries in Slovenia is 1.57, which means that each EUR 1,000 of copyright-based industries' final-use production will result in EUR 1,570 in total output production throughout the economy. Interestingly, this is quite comparable to the role of the tourism industry in Slovenia in terms of the direct and the multiplication effect.

While the estimated multiplier effects are not uniform across the four groups of copyright-based industries, the activities of the core industries group result in above-average multiplication effects and represent the largest share (65.8 percent) of the direct and indirect contribution made by copyright-based industries in Slovenia to the total GDP, followed in importance by the interdependent industries (11.5 percent), the non-dedicated industries (11.5 percent), and the partial industries (11.2 percent).

Considering the economic weight and results of the international comparison of copyright-based industries that have been established by this study, we believe that copyright-based industries should receive more consideration from economic policies. Decision-makers from the public and private sectors and from civil society must be made aware of the current contribution of these industries and their importance for future economic development.

Therefore, our recommendations would be twofold: the first set of recommendations is aimed at decision- and policy-makers within the copyright field, while the second will focus on the methodological aspect of this and future studies.

We noted that, despite numerous national strategic documents, Slovenia does not have a comprehensive strategic policy or document on copyright-related issues. Such a comprehensive document should focus on the following core issues: i) development of a national strategy for copyright-based industries; ii) raising general awareness of copyright; and iii) improvements in copyright and related-right enforcement.

A national copyright strategy would allow for further integration of copyright-based industries into other strategic documents at national level. For example, such a strategy would support and complement strategic documents in the field of innovation and competitiveness, since both involve a high level of copyright content. The national strategy should elaborate the future development framework of these industries, with a special focus on development and collaboration policies for these industries. Copyright-based industries consist of many different types of activities and fields (e.g. software and cultural activities) and such diversity weakens the bargaining power of these industries in comparison to other industrial sectors. However, these industries have a clear common interest in copyright protection; therefore, a coalition and collaboration between them could lead to a more favorable position toward policymakers and other stakeholders, for example professional associations and collective management organizations.

A very important element of the national strategy should be a careful elaboration of various features of copyright, such as financial, statistical, administrative, legal, and tax aspects. To this end, it would be worthwhile to review best practices in the field of copyright in those developed countries where copyright-based industries represent a significant contribution to GDP, and to consider their application to Slovenian circumstances. In any case, the policies within the strategy should be oriented toward increasing copyright system efficiency, and making the system more user-friendly and more up to date with developments in the relevant fields (e.g. globalization, advances in information and communication technology, etc.).

Besides development policy, awareness-raising policies should also be a part of the strategy. After consultations with the panel of industry representatives, it became obvious that there is a need not only to raise the general public awareness of the importance of copyright, but more importantly to take some measures to improve the knowledge of authors and other right-holders of the meaning and scope of their rights and the implications of their rights.

Although copyright infringement and the problem of piracy was not the subject of this study, we cannot escape the fact that proper legal enforcement of rights must be addressed by any strategic document in the copyright and related-rights field. A proper action plan for improvement of enforcement should be based on a thorough analysis of present industry practices. Some specific suggestions regarding possible improvements of the enforcement policy are given in chapter 5.8.6.

From the methodological aspect, our observation is that a more objective methodology for determination of copyright factors is necessary to make the WIPO studies more comparable. The first step toward a more uniform approach would be to use a standard questionnaire for semi-structured interviews with industry representatives in order to obtain relevant information upon which copyright factors are defined. The research team had difficulties in obtaining additional data (supplementary to the economic data provided by the Statistical Office) on the activities of copyright-based industries: in some cases it was impossible to obtain even basic information (e.g. the number of records sold for the music industry), which is a handicap for this and any further studies in this field. Considering that the economic effects of copyright-based industries are not marginal, it would be reasonable to review and if necessary improve the data-collection process, especially on the part of collective management organizations.

It is our hope that this pilot study, based on the WIPO guidelines, will provide valuable information for decision- and policy-makers, offer experience for future research in this field, boost the interest of the professional and the general community in copyright and also provide the initiative for a systematic and continuous approach to measuring and monitoring the contribution of copyright-based industries in Slovenia.

Appendix

The WIPO Guide recommends which industries could be considered copyright-based industries and provides correspondence tables with copyright-based industries and the four-digit ISIC Rev 3.1. and, for some cases, NACE Rev. 1.1. codes of the pertaining industries. The Slovenian Standard Classification of Activities (SKD) is harmonized with NACE Rev. 1.1. to the four-digit level; however, some of the SKD classes are further disaggregated to the five-digit level, which proved to be an advantage when selecting and classifying the industries into four groups of copyright-based industries. An overview of industries considered as copyright-based industries is given in Table 25.

The statistical trade survey was used to delimit those activities for which the most detailed level of SKD classification did not provide the adequate level of detail for the identification of the copyright-based industries. For these activities the delimitation was based on the structure of sales by products. This was done for the following codes:

- 5143 Wholesale of electrical household appliances & radios & televisions;
- 5147 Wholesale of other household goods;
- 5244 Retail sale of furniture, lighting equipment & household articles n.e.c.;
- 5245 Retail of electrical household appliances & radio & television goods.

A more statistical approach (expert opinion after reviewing data of business subjects in each activity code) was used for the delimitation of the following codes, for which a percentage rate was applied to the activity code according to copyright industry:

- 3663 Other manufacturing not elsewhere classified (n.e.c.);
- 5156 Wholesale of other intermediate products;
- 5184 Wholesale of computers, computer peripheral equipment and software;
- 52488 Retail sale in other specialized shops, n.e.c.;
- 7240 Database activities;
- 74871 Organization of exhibitions, fairs and congresses;
- 74873 Other business activities n.e.c.;
- 9112 Activities of professional organizations;
- 9231 Artistic and literary creation and interpretation;
- 92521 Museum activities;
- 9272 Other recreational activities not elsewhere classified.

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology

CORE INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Press and literature					
Book publishing	2211	2211	Publishing of books	100%	1
Newspapers	2212	2212	Publishing of newspapers	100%	1
Magazines/Periodicals	2212	2213	Publishing of journals and periodicals	100%	1
Other publishing	2219	2215	Other publishing	100%	1
Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials	2221	2221	Printing of newspapers	100%	1
	2222	2222	Printing not elsewhere classified	100%	1
		2223	Bookbinding	100%	1
		2224	Pre-press activities	100%	1
		2225	Ancillary activities related to printing	100%	1
Wholesale and retail of press and literature	5139	5147	Wholesale of other household goods	trade statistics	1
	5239	52471	Retail sale of books	100%	1
		52472	Retail sale of newspapers, magazines	100%	1
		5250	Retail sale of secondhand goods in stores	100%	1
Authors, writers, translators	9214, 7499	74851	Translation	100%	1
		74871	Organization of exhibitions, fairs and congresses	% of "pure" core industry	1
		9240	News agency activities	100%	1
		9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
Libraries	9231	9251	Library and archives activities	100%	1
Music, Theatrical Productions, Opera					
Printing and publishing of music	2213	2214	Publishing of sound recordings	100%	1
Production/manufacturing of recorded music	2230	2231	Reproduction of sound recordings	100%	1
Wholesale and retail of recorded music (sale and rental)	5233, 7130, 5139	5147	Wholesale of other household goods	trade statistics	1
		5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Artistic and literary creation and interpretation	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

CORE INDUSTRIES						
	WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
	Performances and allied agencies (bookings, ticket agencies)	9214	9232	Operation of arts facilities	100%	1
			9234	Other entertainment activities nec	100%	1
			74871	Organization of exhibitions, fairs and congresses	% of "pure" core industry	1
Film and Video						
	Writers, directors, actors	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
	Motion picture and video production and distribution	9211	9211	Motion picture and video production	100%	1
			9212	Motion picture and video distribution	100%	1
	Motion picture exhibition	9212	9213	Motion picture projection	100%	1
	Video rentals and sales, video on demand	7130, 9211	71402	Video renting shops	100%	1
	Allied services	2230	2232	Reproduction of video recording	100%	1
Photography						
	Studios and commercial photography	7494	7481	Photographic activities	100%	1
Visual and Graphic Arts						
	Artists	9214	9231	Artistic and literary creation and interpretation	% of "pure" core industry	1
	Art galleries and other wholesale and retail	9214	92521	Museum activities	20%	1
Radio and Television						
	National radio and television broadcasting companies	9213	9220	Radio and television activities	100%	1
	Other radio and television broadcasters	9213				
Software and Databases						
	Wholesale and retail pre-packaged software	5151	5184	Wholesale of computers, computer peripheral equipment and software	40%	1
			2233	Reproduction of computer media	100%	1
	Programming, development and design, manufacturing	7221	7221	Publishing of software	100%	1
		7229	7222	Other software consultancy and supply	100%	1

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

CORE INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Database processing and publishing	7230	7230	Data processing	100%	1
	7240	7240	Database activities	20%	1
		7260	Other computer-related activities	100%	1
Advertising					
Agencies, buying services	7430	7440	Advertising	100%	1
Copyright Collecting Societies					
Copyright collecting societies	9112	9112	Activities of professional organizations	10%*	1

* Four copyright collecting societies (SAZAS, ZAMP, IPF and SAZOR) were included in the full amount; other units were included in the 10% share.

INTERDEPENDENT INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
TV sets, radio sets, VCRs, CDs, cassettes, and other equipment					
Manufacture	3230	3230	Manufacture of TV & radio receivers, sound or video etc apparatus	100%	1
Wholesale	5139	5143	Wholesale of electrical household appliances & radios & televisions	trade statistics	1
Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Rental	7130				
Computers and equipment					
Manufacture	3000	3002	Manufacture of computers and other information-processing equipment	100%	1
Wholesale	5151	5184	Wholesale of computers, computer peripheral equipment and software	60%	1
Retail	7123	7133	Renting of office machinery and equipment including computers	100%	1
Photocopiers					
Manufacture	3000	3001	Manufacture of office machinery	100%	1
Wholesale	5159	5185	Wholesale of other office machinery and equipment	100%	1
Musical Instruments					
Manufacture	3692	3630	Manufacture of musical instruments	100%	1
Wholesale	5139	5147	Wholesale of other household goods	trade statistics	1

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

INTERDEPENDENT INDUSTRIES						
	WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
	Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Photographic and cinematographic instruments						
	Manufacture	3320	3340	Manufacture of optical instruments and photographic equipment	100%	1
	Wholesale	5139	5143	Wholesale of electrical household appliances & radios & televisions	trade statistics	1
	Retail	5239	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
	Rental	7129				
Unrecorded media						
	Manufacture	2429	2465	Manufacture of prepared unrecorded media	100%	1
	Wholesale	5152	5147	Wholesale of other household goods	trade statistics	1
	Retail	5233	5245	Retail of electrical household appliances & radio & television goods	trade statistics	1
Paper						
	Manufacture	2101	2111	Manufacture of pulp	100%	0.7
			2112	Manufacture of paper and paperboard	100%	0.7
			2955	Manufacture of machinery for paper and paperboard production	100%	0.7
	Wholesale		5156	Wholesale of other intermediate products	68% in 2002, 72% in 2007	0.7
	Retail		52473	Retail sale of paper stationery	100%	0.7

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

PARTIAL INDUSTRIES						
	WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Apparel, textiles, and footwear						
	Manufacture	1721	1710	Preparation and spinning of textile fibers	100%	0.006
			1720	Textile weaving	100%	0.006
			1730	Finishing of textiles	100%	0.006
			1740	Manufacture of made-up textile articles, except apparel	100%	0.006
			1751	Manufacture of carpets and rugs	100%	0.006
			1760	Manufacture of knitted and crocheted fabrics	100%	0.006
			1771	Manufacture of knitted and crocheted hosiery	100%	0.006
			1772	Manufacture of knitted & crocheted pullovers, cardigans and similar	100%	0.006
		1810	1810	Manufacture of leather clothes	100%	0.006
			1821	Manufacture of workwear	100%	0.006
			1822	Manufacture of other outerwear	100%	0.006
			1823	Manufacture of underwear	100%	0.006
			1824	Manufacture of other wearing apparel and accessories nec	100%	0.006
		1920	1910	Tanning and dressing of leather	100%	0.006
			1920	Manufacture of luggage, handbags and the like, saddlery and harnesses	100%	0.006
			1930	Manufacture of footwear	100%	0.006
			2954	Manufacture of machinery for textile, apparel and leather production	100%	0.006
	Wholesale	5131	5142	Wholesale of clothing and footwear	100%	0.006
	Retail	5232	5241	Retail sale of textiles	100%	0.006
			5242	Retail sale of clothing	100%	0.006
			5243	Retail sale of footwear and leather goods	100%	0.006
Jewelry and coins						
	Manufacture	3691	3621	Striking of coins	100%	0.2
			3622	Manufacture of jewelry and related articles nec	100%	0.2
			3661	Manufacture of imitation jewelry	100%	0.2
	Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.2
	Retail	5239	52485	Retail sale of watches, clocks and jewelry	100%	0.2

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

PARTIAL INDUSTRIES						
	WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Other crafts						
	Manufacture	9199	3663	Other manufacturing nec	% of "pure" industry	0.4
	Retail	5239	52486	Retail sale of works of art	100%	0.4
			52488	Retail sale in other specialized shops nec	33%	0.4
Furniture						
	Manufacture	3610	3611	Manufacture of chairs and seats	100%	0.05
			3612	Manufacture of other office and shop furniture	100%	0.05
			3613	Manufacture of other kitchen furniture	100%	0.05
			3614	Manufacture of other furniture	100%	0.05
			3615	Manufacture of mattresses	100%	0.05
	Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.05
	Retail		5244	Retail sale of furniture, lighting equipment & household articles nec	trade statistics	0.05
	Rental	7130				
Household goods, china and glass						
	Manufacture	2029	2051	Manufacture of other products of wood	100%	0.005
			2052	Manufacture of articles of cork, straw and plaiting	100%	0.005
		2610	2611	Manufacture of flat glass	100%	0.005
			2612	Shaping and processing of flat glass	100%	0.005
			2613	Manufacture of hollow glass	100%	0.005
			2614	Manufacture of glass fibers	100%	0.005
			2615	Manufacture & processing of other glass including technical glassware	100%	0.005
			2621	Manufacture of ceramic household and ornamental articles	100%	0.005
			2622	Manufacture of ceramic sanitary fixtures	100%	0.005
			2623	Manufacture of ceramic insulators and insulating fittings	100%	0.005
			2624	Manufacture of other technical ceramic products	100%	0.005
			2625	Manufacture of other ceramic products	100%	0.005
			2626	Manufacture of refractory ceramic products	100%	0.005
		2899	2875	Manufacture of other fabricated metal products nec	100%	0.005
			3150	Manufacture of lighting equipment and electric lamps	100%	0.005

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

PARTIAL INDUSTRIES						
	WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
	Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.005
	Retail	5233	5244	Retail sale of furniture, lighting equipment & household articles nec	trade statistics	0.005
Wall coverings and carpets						
	Manufacture	1722	1751	Manufacture of carpets and rugs	100%	0.04
		2109	2124	Manufacture of wallpaper	100%	0.04
		2109	2125	Manufacture of other articles of paper and paperboard nec	100%	0.04
	Retail	5239	52488	Retail sale in other specialized shops nec	33%	0.04
Toys and games						
	Manufacture	3694	3650	Manufacture of games and toys	100%	0.4
	Wholesale	5139	5147	Wholesale of other household goods	trade statistics	0.4
	Retail	5239	52487	Retail sale of toys and children's equipment	100%	0.4
			9272	Other recreational activities nec	10%	0.4
Architecture, engineering, surveying						
	Architecture and engineering activities and related technical consultancy	7421	7420	Architectural & engineering activities & related technical consultancy	100%	0.25
			74873	Other business activities nec	5%	0.25
Interior design						
	Interior design	7499	74872	Fashion design and decoration	100%	0.1
Museums						
	Museums	9232	92521	Museum activities	80%	0.5

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

NON-DEDICATED INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
General wholesale and retailing					
Wholesale	51	5111	Agents in sale agric. & textile raw materials, animals, semi-finisheds	100%	0.0432
		5112	Agents involved in sale of fuels, ores, metals & industrial chemicals	100%	0.0432
		5113	Agents involved in the sale of timber and building materials	100%	0.0432
		5114	Agents involved in sale of industrial equipment, ships & aircraft	100%	0.0432
		5115	Agents involved in sale of household goods, hardware & ironmongery	100%	0.0432
		5116	Agents in sale of textiles, clothing, footwear & leather goods	100%	0.0432
		5117	Agents involved in the sale of food, beverages and tobacco	100%	0.0432
		5118	Agents specializing in sale of particular products or ranges nec	100%	0.0432
		5119	Agents involved in the sale of a variety of goods	100%	0.0432
		5141	Wholesale of textiles	100%	0.0432
		5143	Wholesale of electrical household appliances & radios & televisions	trade statistics	0.0432
		5144	Wholesale of china and glassware, wallpaper and cleaning materials	100%	0.0432
		5145	Wholesale of perfume and cosmetics	100%	0.0432
		5146	Wholesale of pharmaceutical goods	100%	0.0432
		5147	Wholesale of other household goods	trade statistics	0.0432
		5181	Wholesale of machine tools	100%	0.0432
		5182	Wholesale of mining, construction and civil engineering machinery	100%	0.0432
		5183	Wholesale of textile industry machinery and sewing & knitting machines	100%	0.0432
		5186	Wholesale of electronic parts and equipment	100%	0.0432
		5187	Wholesale of other machinery for use in industry, trade and navigation	100%	0.0432
		5188	Wholesale of agricultural machinery & accessories, including tractors	100%	0.0432
		5190	Other wholesale	100%	0.0432

Table 25: Codes of Industries Considered as Copyright-Based Industries Based on the WIPO Methodology (continued)

NON-DEDICATED INDUSTRIES					
WIPO Description	ISIC Rev. 3.1. Code	SKD Code	SKD Description	Proportion	Copyright factor
Retail	52	5211	Retail in non-specialized stores, food, drink, tobacco predominating	100%	0.0432
		5212	Other retail sale in non-specialized stores	100%	0.0432
		5245	Retail of electrical household appliances & radio & television goods	trade statistics	0.0432
		52488	Retail sale in other specialized shops nec	33%	0.0432
		5250	Retail sale of secondhand goods in stores	100%	0.0432
		5261	Retail sale via mail-order houses	100%	0.0432
		5262	Retail sale via stalls and markets	100%	0.0432
		5263	Other non-store retail sale	100%	0.0432
General transportation					
Land transport	60	6010	Transport via railways	100%	0.0432
		6021	Other scheduled passenger land transport	100%	0.0432
		6022	Taxi operation	100%	0.0432
		6023	Other passenger land transport	100%	0.0432
		6024	Freight transport by road	100%	0.0432
Water transport	61	6110	Sea and coastal water transport	100%	0.0432
		6120	Inland water transport	100%	0.0432
Air transport	62	6210	Scheduled air transport	100%	0.0432
		6220	Non-scheduled air transport	100%	0.0432
Supporting and auxiliary transport activities	63	6311	Cargo handling	100%	0.0432
		6312	Storage and warehousing	100%	0.0432
		6321	Other supporting land transport activities	100%	0.0432
		6322	Other supporting water transport activities	100%	0.0432
		6323	Other supporting air transport activities	100%	0.0432
		6330	Activities of travel agencies & tour operators, tourist assistance nec	100%	0.0432
		6340	Activities of other transport agencies	100%	0.0432
Post and courier activities	641	6411	National post activities	100%	0.0432
		6412	Courier activities other than national post activities	100%	0.0432
Telecommunications and internet					
Telecommunications	6420	6420	Telecommunications	100%	0.0432
Database activities and on-line distribution of electronic content	7240	7240	Database activities	80%	0.0432

Table 26: Determination of the Copyright Factors – A Semi-Structured Questionnaire

Q1. What do you consider as copyright-based activities in your company? (Discussion with the company manager in order to assure correct understanding of the copyright-based (creative) activities)
Q2. What is a typical product or service resulting from copyright-based activities in your company? (Discussion with the company manager in order to correctly estimate products and services that are the result of the creative activity in the company)
Q3. Can you evaluate the share in total sales of the products and services resulting from copyright-based activities in the company? (Discussion with the company manager in order to appropriately estimate the share in total sales of products and services that are the result of the creative activity in the company)
Q4. Which job positions or employees in your company are involved in copyright-based activities? (Discussion with the company manager in order to correctly identify which job placements and people are involved in the creative activity in the company)
Q5. Can you evaluate how much time these employees on average dedicate to copyright-based activities? (Discussion with the company manager in order to appropriately estimate the proportion of work related to copyright-based activity in the company)
Q6. Can you evaluate the share of employees in your company involved in the production of copyright-based products and services (creative activities)? (Discussion with the company manager in order to correctly estimate the share of employees involved in the company's creative activities)

Table 27: Total (input-output) employment effect of copyright-based industries in Slovenia in 2007, by sector

Sector (based on 2-digit SKD classification)	Core	Interdependent	Partial	Non-dedicated
Products of agriculture, hunting and related services	14.23	4.97	4.25	6.73
Products of forestry, logging and related services	7.17	11.79	9.75	1.15
Fish and other fishing products, services incidental to fishing	18.83	0.60	0.92	0.64
Coal and lignite; peat	55.56	60.14	10.96	10.39
Crude petroleum and natural gas; services incidental to oil and gas extraction excluding surveying	0.00	0.00	0.00	0.00
Uranium and thorium ores	0.00	0.00	0.00	0.00
Metal ores	0.00	0.00	0.00	0.00
Other mining and quarrying products	9.17	1.66	5.45	2.24
Food products and beverages	97.86	21.52	24.28	35.58
Tobacco products	0.00	0.00	0.00	0.00
Textiles	23.16	6.86	301.73	3.15
Wearing apparel; furs	43.77	6.19	180.95	12.94
Leather and leather products	2.00	0.72	136.62	0.67
Wood and products of wood and cork (except furniture), articles of straw and plaiting materials	96.80	191.93	160.59	13.95
Pulp, paper and paper products	626.54	2063.73	30.98	13.54
Printed matter and recorded media	10896.06	158.92	41.19	40.40
Coke, refined petroleum products and nuclear fuel	0.15	0.07	0.04	0.22
Chemicals, chemical products and manmade fibers	14.95	14.99	2.74	1.82
Rubber and plastic products	40.69	45.25	10.95	19.80
Other non-metallic mineral products	66.57	14.60	36.84	15.53
Basic metals	20.10	32.53	13.79	6.38
Fabricated metal products, except machinery and equipment	200.16	80.30	185.13	47.04
Machinery and equipment n.e.c.	22.65	47.62	6.81	7.48
Office machinery and computers	17.72	704.58	6.78	2.39
Electrical machinery and apparatus n.e.c.	39.50	12.94	13.83	8.63
Radio, television and communication equipment and apparatus	8.78	1130.92	3.56	1.65
Medical, precision and optical instruments, watches and clocks	1.58	2452.75	0.54	0.31
Motor vehicles, trailers and semi-trailers	0.03	0.00	0.01	0.01
Other transport equipment	7.86	3.14	1.49	19.87
Furniture; other manufactured goods n.e.c.	28.71	44.39	1432.32	5.92
Recovered secondary raw materials	5.76	4.70	3.96	1.39
Electrical energy, gas, steam and hot water	136.38	86.17	31.01	29.83
Collected and purified water, distribution services of water	44.67	10.66	8.72	11.73
Construction work	508.83	55.78	199.29	95.23
Trade, maintenance and repair services of motor vehicles and motorcycles; retail trade services of automotive fuel	141.30	52.51	32.15	95.63
Wholesale trade and commission of trade services, except of motor vehicles and motorcycles	1246.11	982.55	251.43	853.39
Retail trade services, except of motor vehicles and motorcycles; repair services of personal and household goods	1495.01	1080.97	1401.43	1844.92
Hotel and restaurant services	658.94	75.59	81.61	252.24
Land transport and transport via pipeline services	264.17	133.87	56.19	1093.76
Water transport services	0.30	0.54	0.40	15.77

Table 27: Total (input-output) employment effect of copyright-based industries in Slovenia in 2007, by sector (continued)

Air transport services	10.86	2.18	1.30	47.27
Supporting and auxiliary transport services; travel agency services	98.38	37.85	18.47	1258.81
Post and telecommunication services	511.90	57.18	53.10	616.31
Financial intermediation services, except insurance and pension funding services	564.71	108.75	104.49	131.75
Insurance and pension funding services, except compulsory social security services	53.81	18.53	12.81	18.64
Services auxiliary to financial intermediation	26.47	6.99	5.82	8.75
Real-estate services	47.65	10.37	12.60	14.12
Renting services of machinery and equipment without an operator and of personal and household goods	49.13	3.82	4.87	6.64
Computer and related services	5576.77	45.60	34.62	60.44
Research and development services	92.44	63.63	16.06	9.88
Other business services	5974.40	495.78	2541.86	551.70
Public administration and defense services; compulsory social security services	154.70	26.88	32.17	75.62
Education services	268.99	69.41	37.04	40.57
Health and social work services	49.26	10.52	12.88	11.05
Sewage and refuse disposal services, sanitation and similar services	63.75	20.43	10.62	17.65
Membership organization services n.e.c.	50.26	4.53	3.66	6.10
Recreational, cultural and sporting services	9867.21	16.03	401.99	26.64
Other services	42.86	4.55	8.12	6.94
Private households with employed persons	0.00	0.00	0.00	0.00
Services provided by extra-territorial organizations and bodies	0.00	0.00	0.00	0.00