

The Economic Contribution of the Copyright-Based Industries in Serbia



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The Economic Contribution of the Copyright-Based Industries in Serbia

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Abbreviations

CBIs	Copyright-based industries
CMOs	Collective management organizations
CPA	Classification of products by activity
EC	European Community
EU	European Union
EUR	Euro
FTU	Full-time units (for employment)
GDP	Gross domestic product
GVA	Gross value added
ICI	Interdependent copyright industries
JKD	Serbian Classification of Economic Activities
NACE	Statistical Classification of Economic Activities in the European Community
NBS	National Bank of Serbia
NDSI	Non-dedicated support industries
OECD	Organization for Economic Co-operation and Development
OFA	Serbian Organization of Photographers – Authors
OFPS	Serbian Phonograms Producers' Organization
PCI	Partial copyright industries
PI	Serbian Organization for Collective Management of Performers' Rights
RSD	Republic of Serbia Dinar (Serbian national currency)
SOKOJ	Serbian Music Authors' Organization
SORS	Statistical Office of the Republic of Serbia
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
VAT	Value Added Tax
WIPO	World Intellectual Property Organization
WCT	WIPO Copyright Treaty
WPPT	WIPO Performances and Phonograms Treaty

Executive Summary

The study was initiated by the Serbian Intellectual Property Office and financially supported by the World Intellectual Property Organization (WIPO). It was conducted between June 2013 and April 2014. The study makes use of data from 2008 to 2012 and is the first one conducted in Serbia, in accordance with WIPO's methodology, which was developed to determine the economic contribution of the copyright-based industries with the aim of making national studies in this area as comparable as possible.¹ The methodology developed by WIPO outlines four groups of copyright-based industries – core, interdependent, partial, and non-dedicated support industries, identified on the basis of their level of dependence on copyright. It also establishes a set of major indicators – contribution to gross domestic product (GDP) and gross value added (GVA), employment, and foreign trade, and lays out research standards and approaches. The WIPO guidelines were developed on the basis of the best international practices reviewed by an expert group of renowned economists. So far, the guidelines have been implemented in over 40 countries around the world.

Copyright Law in Serbia

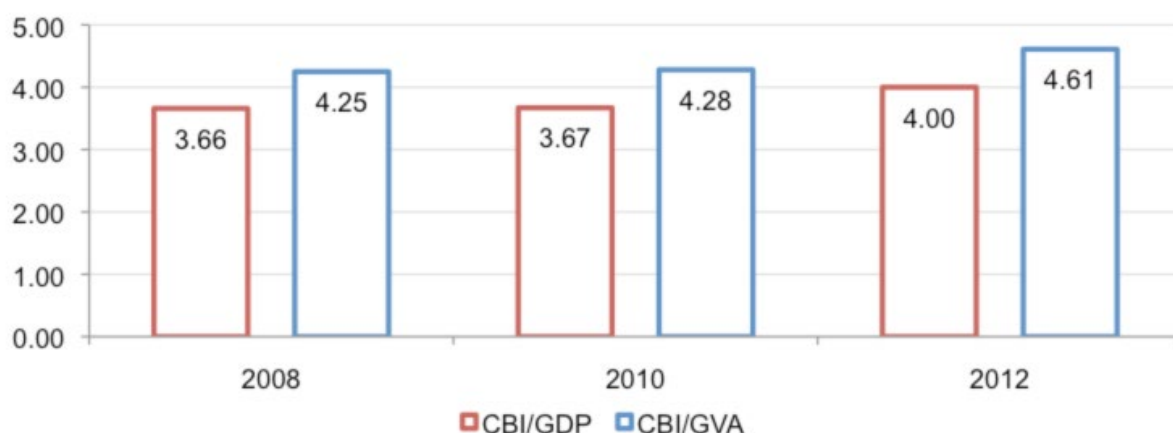
The regulation of copyright and related rights in Serbia is well developed. The main legislative source of copyright in Serbia is the Copyright and Related Rights Act, adopted in 2009, amended in 2011 and 2012. The Copyright and Related Rights Act has generally been harmonized with all international treaties, conventions and agreements that regulate the area of copyright and related rights, as well as with all EU directives concerning copyright and related rights, which were enacted prior to its adoption. Other sources of copyright law in Serbia (e.g. the Act on Special Competencies for Efficient Protection of Intellectual Property Rights) are also generally harmonized with international and EU copyright rules. In the Serbian legal system, protection of copyright and related rights from infringement may be claimed within civil, criminal and administrative proceedings. As a rule, the proceedings are initiated by the owners of copyright and related rights. However, certain proceedings (e.g. criminal proceedings for the most serious criminal offenses) are initiated *ex officio*.

Economic Contribution

The copyright-based industries were analyzed in terms of their value added, employment, and foreign trade contributions to the Serbian economy. The study reveals that the Serbian copyright and related rights industries made up between 3.66% and 4.00% of the country's GDP over the period of 2008–2012. A detailed statistical analysis of the value added of copyright-related economic activities shows that the Serbian copyright industry comprised between 4.25% and 4.61% of the gross value added over the same period. The difference between these two measures is explained by the fact that gross value added does not include net taxes on products. Both net taxes and VAT cannot be reliably attributed to economic activities; thus, the share of the copyright industry is smaller in terms of GDP than in terms of GVA. The following figure shows that both measures are moving in parallel and differences are of the same scale each year.

¹ It should be noted that the objective of the study was neither to measure the extent of copyright infringement or piracy, nor to measure the impact of copyright on GDP or GVA. Instead the main tasks were: a) to identify industries that are copyright-based according to WIPO; and b) to measure their output, value added, employment, and foreign trade. The core of the study is based on official statistical data, but supplementary sources, including interviews with representatives of copyright-based industries, were also used.

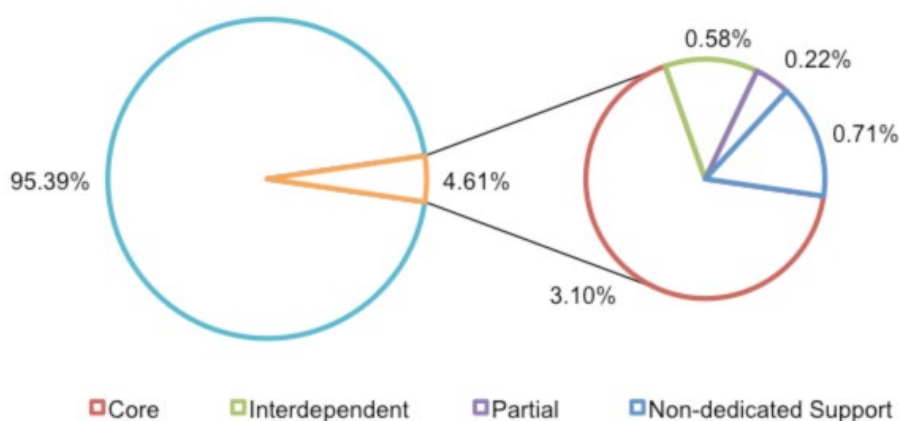
Copyright-based industries' contribution to GDP and GVA, %



Source: Authors' calculation

The copyright-based industries are categorized into four segments: core, interdependent and partial copyright industries and non-dedicated support industries. The core copyright industry has the dominant share, with more than half of the value added created in the copyright industry in 2012. While the core copyright industry contributed 3.10% of GVA, the interdependent copyright industry made up 0.58%, and the partial copyright industry created 0.22% of the value added in the economy. Finally, the part of the economy which serves the copyright industries, and which is traditionally classified as the non-dedicated support industries, comprised 0.71% of the value added. The structure of the economic contribution to the Serbian economy (GVA) is presented in the following figure.

Copyright-based industries' contribution to GVA, %



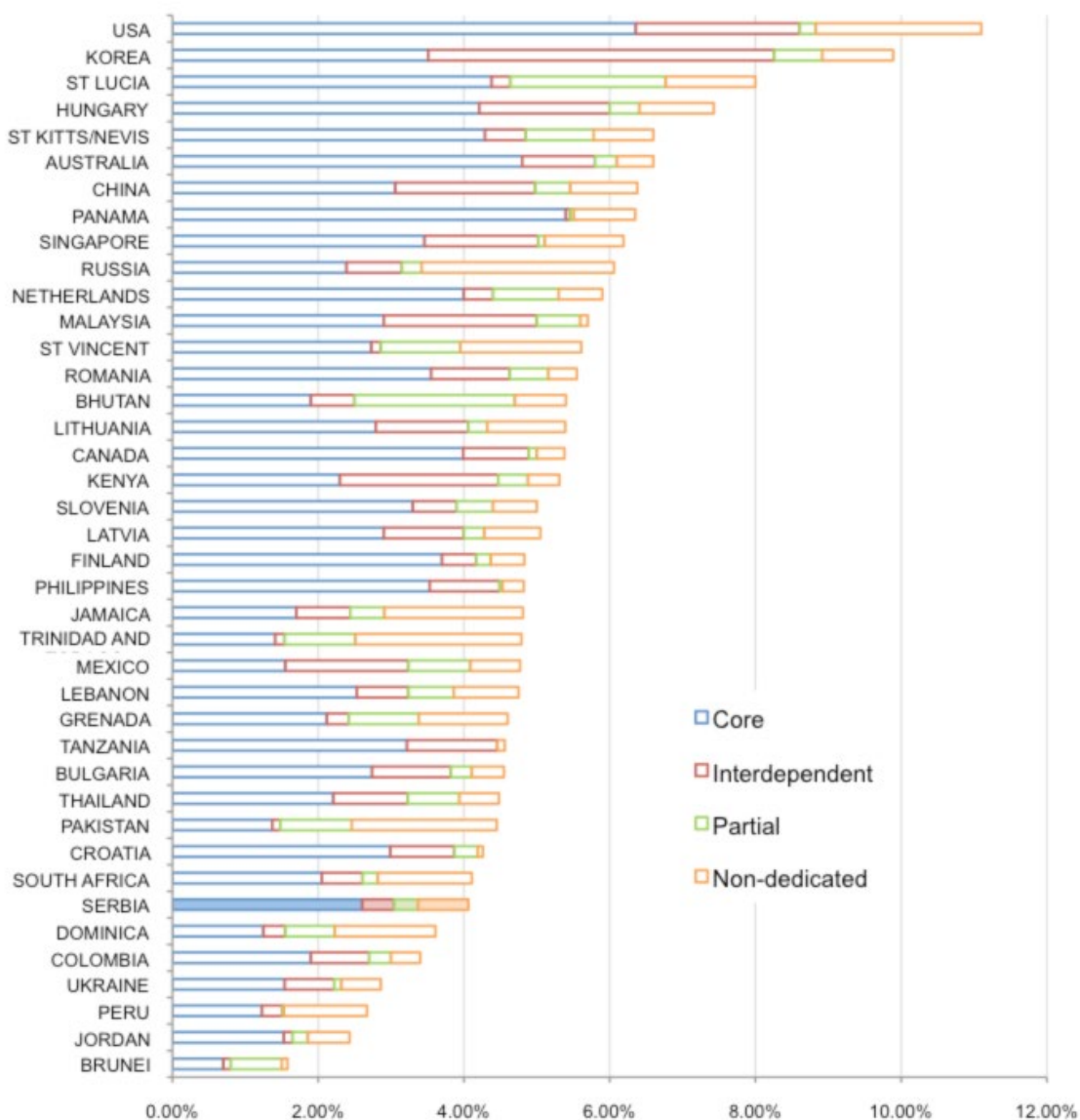
Source: Authors' calculation

The largest copyright-based industry throughout the period was press and literature, with a little less than 1% contribution to the economy at the end of the period. The rapidly growing software and databases industry, classified as a core copyright activity, has quickly been catching up.

The findings presented in the figure above allow for the mapping of the Serbian copyright industries' position in the global picture by comparing the importance of the copyright industry in other countries which have conducted similar statistical research. Serbia is somewhat below the median and takes only 34th position in the group of 40 countries. Nevertheless, in terms of the contribution of the core copyright industries, Serbia, with a 3.10% contribution, ranks 23rd. This is close to the average for other countries in which WIPO-sponsored studies were conducted, as more than half of the total contribution of the copyright industries to GDP comes from the core copyright industries. The Serbian copyright industry share is also smaller than the

corresponding share in neighboring Croatia, Romania and Bulgaria. International comparison reveals that Serbia has a significant potential to increase the share of CBI, and move toward a more advanced stage of the copyright economy.

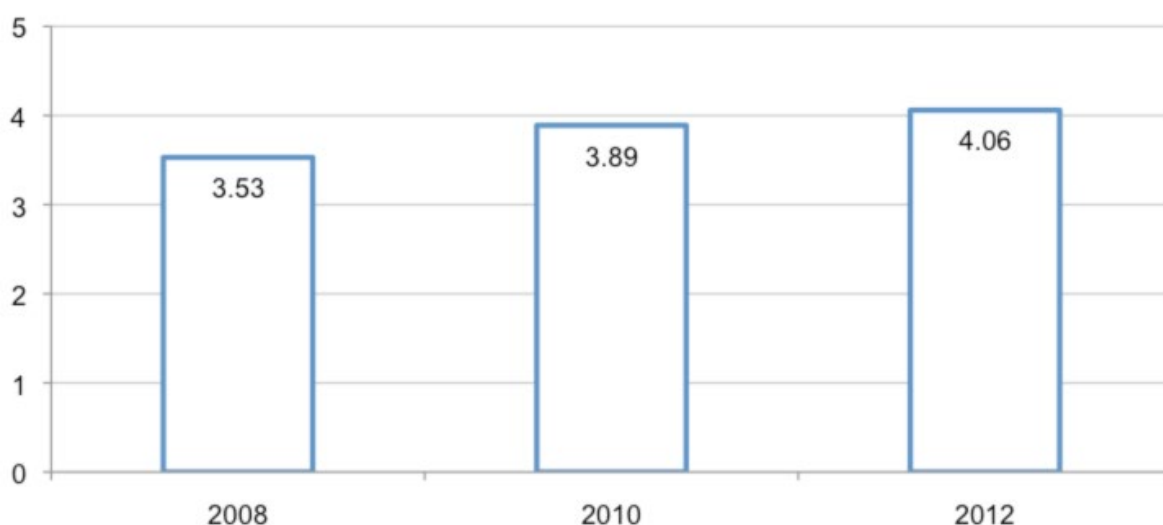
Contribution of copyright industries to GDP, %



Source: WIPO and authors' calculation

The analysis of employment shows that the copyright-based industries generated somewhat less employment than value added. In 2012, employment in the Serbian copyright industries comprised 4.06% of the total employment.

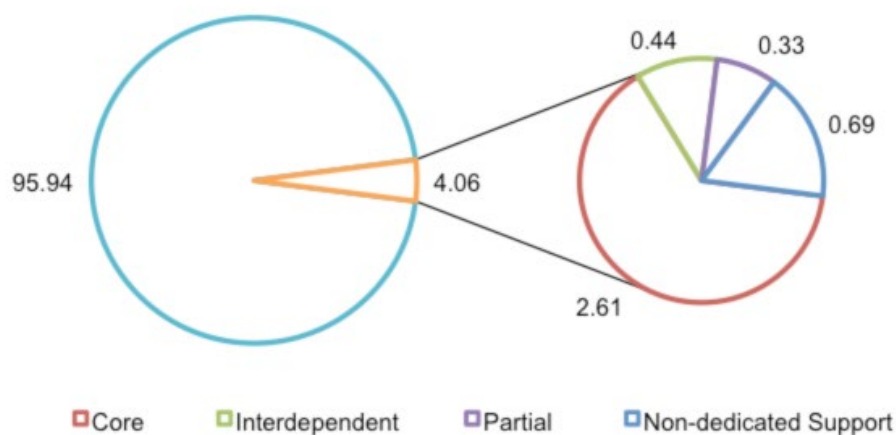
CBIs as % of total employment 2008-2012



Source: Authors' calculation

More than half of the employment, 2.61%, was generated by the core copyright industry. The interdependent copyright industry made up 0.44%, while the partial copyright industry created 0.33% of the overall employment. Finally, the non-dedicated support industries comprised 0.69% of the total employment. The employment structure with regard to the Serbian copyright industry is shown in the figure below. The difference between the total and the core CBIs' share in the total employment reveals the relatively weak contribution of non-core CBIs in Serbia.

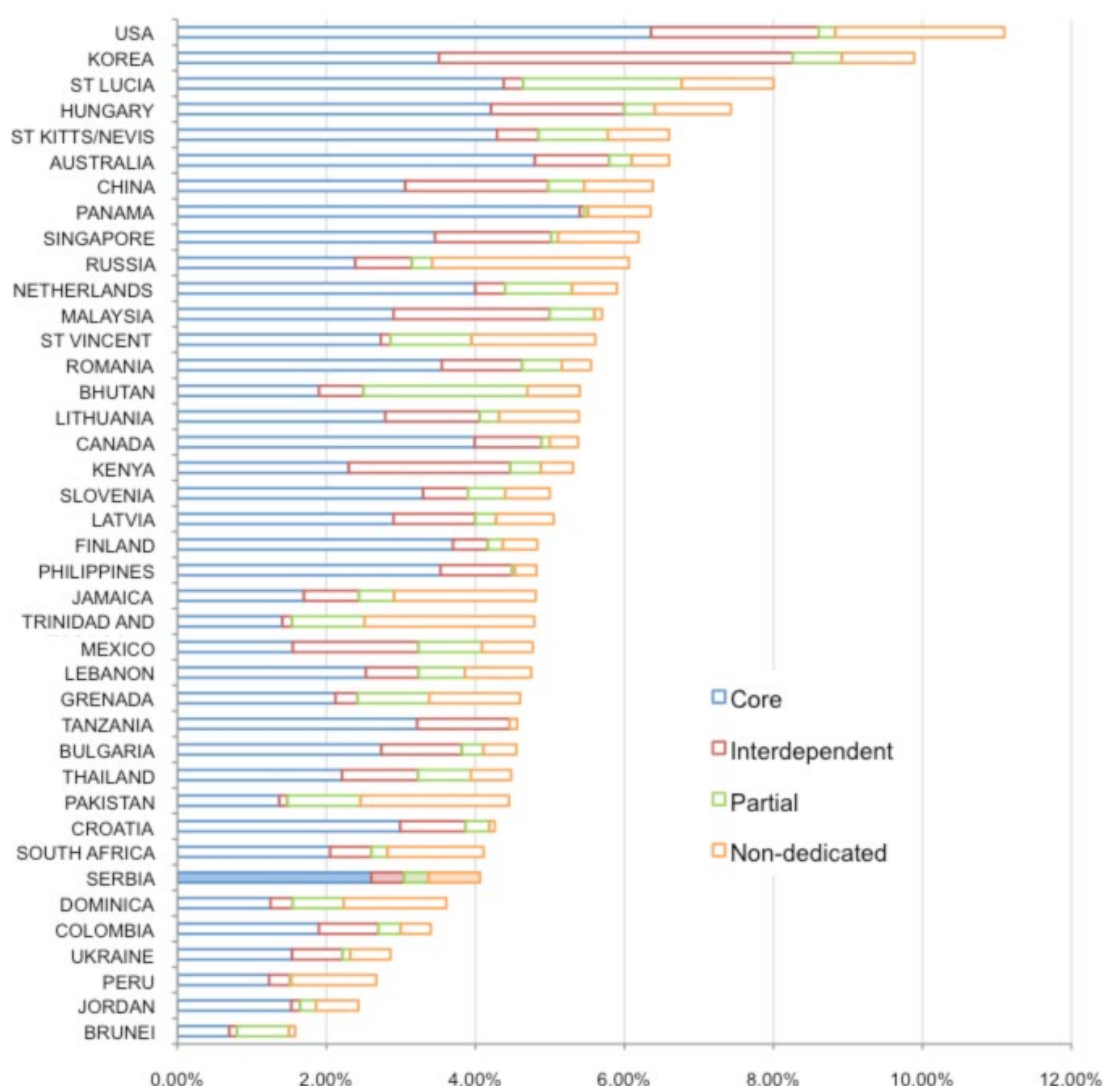
Employment by copyright industries in Serbia in 2012, %



Source: Authors' calculation

A steady decrease in the number of people employed in the copyright-based industries was registered for the period of 2008-2012. Serbian CBIs lost 9,253 jobs. However, the contribution of CBIs to employment increased from 3.53% in 2008 to 4.06% in 2012, with the highest relative increase recorded by the core industries (increase from 2.17% to 2.61%). Thus, CBIs were somewhat less affected by the crisis than the overall economy. This is consistent with the fact that in most countries, total CBIs and core CBIs are dynamic sectors of the economy, so their share in the total employment shows an upward trend. Structurally, the copyright-based industries sector employment in Serbia is similar to those of Hungary, Latvia and Slovenia.

Contribution of copyright industries to employment, %

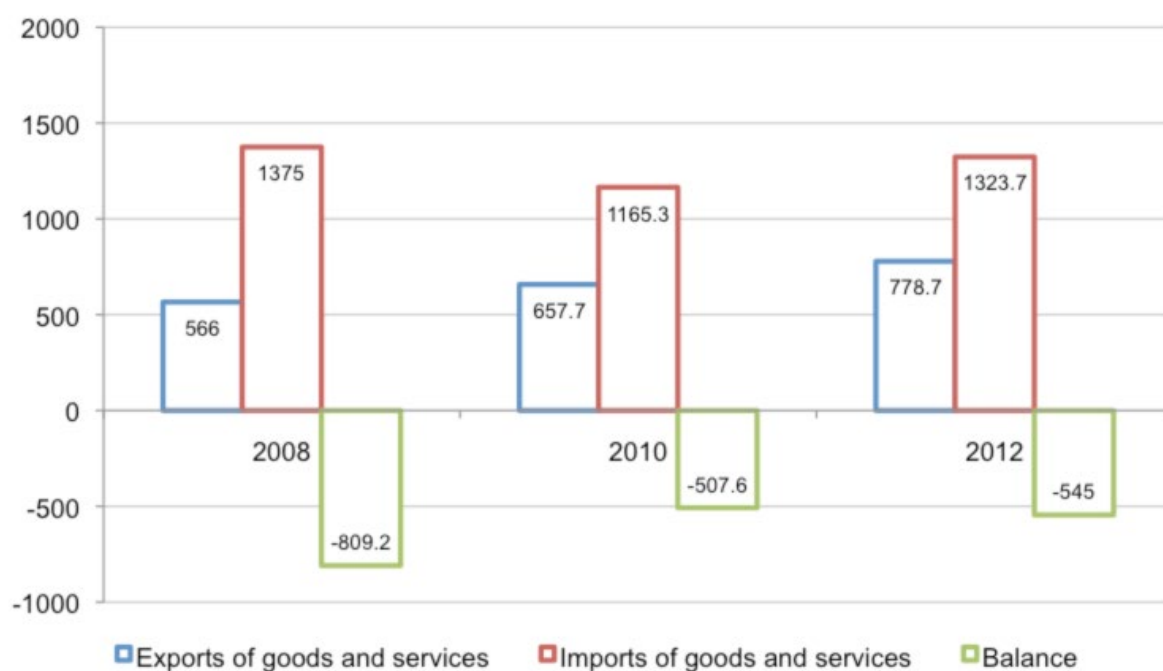


Source: WIPO and authors' calculation

The copyright industry in Serbia is more important in terms of GVA than in terms of employment, and it is more productive than the economy in general, i.e. one employee in CBIs on average creates a larger gross value added compared to the rest of the national economy. The study reveals significant differences between copyright-based industries with respect to productivity.

The share of foreign trade was first assessed by separately analyzing trade in goods and trade in services. The contribution to exports in goods made up 4.44% in 2012. This result is very close to that of CBIs' contribution to GVA. The balance between exports and imports of copyright-related services was negative in 2008 and 2010, but it turned out substantially positive in 2012. The overall rise in the contribution of the exports of copyright services is primarily explained by a significant increase in the share of communication (computer and information) services. Total exports of copyright-based industries in 2012 amounted to EUR 778.7 million, while total imports were EUR 1.323 million. The balance of foreign trade of copyright-based industries was negative, meaning that imports were higher than exports, and the deficit amounted to EUR 545 million.

Foreign trade in copyright-based industries in EUR mill.



Source: Authors' calculation

In addition, the study provides a detailed analysis of key core copyright industries and collective organizations in Serbia. The analysis presents various data including product and services volume, business demography, main trends, financial indicators, etc. The last part of the study provides correspondence tables and technical details. Finally, the research of the Serbian copyright-based industries was conducted following the WIPO guidelines and recommendations, but due to limited data availability, it was decided to cover every second year (2008, 2010 and 2012) in order to provide a clearer picture of how the Serbian CBIs have been evolving throughout the last five years.

1. INTRODUCTION

Copyright and related rights² are a part of intellectual property rights that are created in the legal system to enhance creation and to protect the ownership of the original creator.³ In essence, copyrights protect creativity, which is one of the engines of economic growth.⁴ The general objective of the copyright is to ensure adequate compensation for creators, so that a socially optimal level of creative activity and consumption of copyright material takes place. However, the economic aspects of copyright and related rights are multifaceted, encompassing various trade-offs between the sometimes conflicting interests of creators, performers, distributors, broadcasters and consumers.⁵ Copyrighted works contribute to other economic activities during the process in which they are created, reproduced, distributed and used. Hence, it can be stated that the creation of a copyrighted work acts as an input for other activities, and that industries based on copyright and related rights contribute substantially to the national economy.

In 2003, WIPO published a *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*.⁶ The methodology developed by WIPO outlines four groups of copyright industries – core, interdependent and partial copyright industries and non-dedicated support industries, identified on the basis of their level of dependence on copyright. It also establishes a set of major indicators – contribution to gross domestic product (GDP) and gross value added (GVA), employment, and foreign trade, and lays out research standards and approaches.⁷ The WIPO guidelines were developed on the basis of best international practices reviewed by an expert group of renowned economists.⁸ So far, the guidelines have been implemented in over 40 countries around the world and indeed, the national studies have confirmed that these industries are significant contributors in terms of their relative share in a country's GDP and GVA, as well as in their contribution to employment and foreign trade in goods and services.

² This study will frequently use only the term copyright, which should be understood as including related rights as well.

³ More specifically, copyright is a legal concept that grants the creator of copyright-protected materials exclusive rights to exploit the economic benefits related to their creative work, with the intention of enabling the creator to receive compensation for their work. The requirements for a product of creative work to be covered by copyright, the exclusive rights of the author and the instruments that can be used to enforce the copyright owner's rights are defined by legislation. The concept of copyright, as well as the protective elements, has been the subject of international treaties – the Berne Convention (1886), the Rome Convention (1961), and more recently the TRIPS Agreement (Trade-Related Aspects of Intellectual Property Rights, 1994) of the World Trade Organization, the WIPO Copyright Treaty (WCT) of 1996 and the WIPO Performances and Phonograms Treaty (WPPT) of 1996. In general, as a rule in most countries, no copyright registration is required and the protection is granted automatically from the moment a work is created. In this respect, copyright differs significantly from the other intellectual property rights. While there still are some differences in copyright protection at the national level and other issues of copyright legislation, the international treaties have to a large extent harmonized the concept of copyright. Hence, the concept of copyright is considered nearly identical across countries and legislation.

⁴ Copyright and related rights have been mainly considered from a legal perspective. Legal researchers have covered topics like the scope of copyright protection, enforcement and infringement of copyrights, the nature of copyright, etc. On the other hand, as emphasized by Posner (2005), The traditional focus of economic analysis of intellectual property has been on reconciling incentives for producing such property with concerns about restricting access to it by granting exclusive rights in intellectual goods – that is, by “propertyizing” them – thus enabling the owner to charge a price for access that exceeds marginal cost.” See Posner, R., “Intellectual Property: The Law and Economics Approach”, *Journal of Economic Perspectives*, Vol. 19, pp. 57–73, (2005). Similarly, Liebowitz (2003) states, “The issue at the heart of copyright, indeed all of intellectual property law, is the degree to which the copyright holder can appropriate the value produced by the consumption, or appreciation, of his work by others and the degree to which this appropriation hinders consumption.” Thus, copyright looks at “the trade-off between consumption efficiency (maximising the net value consumers get of any produced intellectual product) and production efficiency (preserving incentives to create these products efficiently)”. See Liebowitz, S., “Back to the Future: Can Copyright Owners Appropriate Revenues in the Face of New Copying Technologies?” in *The Economics of Copyright: Developments in Research and Analysis*, W. Gordon and R. Watt (eds.), Edward Elgar, pp. 1-25, Cheltenham, UK and Northampton, US, 2003.

⁵ On how effective copyright protection needs to balance these trade-offs, see Watt, R. “The Past and the Future of the Economics of Copyright”, *Review of Economic Research on Copyright Issues*, 1(1), pp. 151-171, (2004).

⁶ *Guide on Surveying the Economic Contribution of the Copyright-based Industries* (2003), World Intellectual Property Organization, No 893(E), Geneva. See also Gantchev, D., “The WIPO Guide on Surveying the Economic Contribution of the Copyright Industries”, *Review of Economic Research on Copyright Issues*, Vol. 1, pp. 5-16, (2004) and Siwek, S.E. “The measurement of “Copyright” Industries: The US Experience”, *Review of Economic Research on Copyright Issues*, Vol. 1, pp. 17-25, (2004).

⁷ GVA equals the total value of output of goods and services produced minus the intermediate consumption (goods and services used up in the production process in order to produce the output). GDP equals the sum of gross value added of the institutional sectors or of the industries, plus taxes on products and imports and minus subsidies on products (subsidies directly linked to the volume or value of production).

⁸ Research examining the economic importance of copyright and related rights first emerged in the 1970s. The first studies were published in the US (1977) and Canada (1977). Several other studies followed thereafter, and research on the economic contribution of copyright extended into the 1980s and 1990s.

1.1 Purpose and Objectives of the Study

The purpose of this study is to produce a comprehensive economic assessment of the copyright- and related rights-based industries in Serbia. Although the copyright-based industries are economically important, their role in, and contribution to, the Serbian economy have not been discussed in detail. While there are related studies that assess basic trends of creative industries in Serbia (Jovičić and Mikić, 2006; Mikić, 2013),⁹ so far there has been no comprehensive economic analysis focusing predominantly on copyright-based aspects.¹⁰ In that respect, this study is the first to examine and assess the economic contribution of copyright-based industries to the Serbian economy. Moreover, in Serbia until very recently, copyright and related rights have often been perceived predominantly, if not exclusively, as a legal category and have not been considered as an important factor that significantly contributes to economic growth.

There is a significant need for a detailed study of the copyright-based industries in Serbia's national economy. This need is based on three key arguments. Firstly, such a study would help to build a more sound understanding of the economic significance of copyright-related industries and possibly change the perceptions and attitudes toward copyright-related activities in Serbia. A number of related issues have been raised by policy-makers and researchers: How does Serbia's copyright industry compare in terms of value added, employment and foreign trade with other countries? Which sectors of the copyright industry are the most propulsive and which sectors are the main contributors? What are the perspectives of copyright-based industries in the country? What policy lessons could be drawn from other countries with regard to copyright policies?

Secondly, the Strategy for the Development of the Intellectual Property in Serbia for 2011-2015¹¹ states that the increase in the share of GDP of industries based on copyright and related rights represents a sound indicator of the significance of Serbia's transition toward a knowledge-based economy. However, the Strategy focuses on intellectual property rights in general and lacks both data and a sound assessment that would describe the current state of copyright-based industries. A detailed assessment of the economic value of the copyright-based industries would provide a robust and consistent dataset on the actual economic contribution of the creative activities, which could serve as a basis for adjusting policies and strategies aimed at promoting growth and development in national copyright-based sectors. To be able to assess and analyze the current state, there is a need to apply the appropriate methodology for calculating the contribution of copyright-based industries to the national economy. In that respect, the WIPO *Guidelines* provide an internationally comparable methodology for measuring the contribution of copyright-based industries; they enable a proper assessment of the current state of copyright-based industries and could represent a valuable input for the forthcoming strategy.

Thirdly, the results of an extensive study on the copyright-based industries could be used by different interest groups. For the collective management organizations, copyright-related private sector companies, and other stakeholders, it is necessary to have a clear understanding of how each particular copyright-based industry develops, what its future prospects are, etc. This is also a signal for potential investors that could help them allocate investments more efficiently. Finally, the study could be instrumental in reviewing fiscal and structural

⁹ See Jovičić, S., H. Mikić, "Kreativne industrije – Preporuke za razvoj kreativnih industrija u Srbiji", British Council, Beograd, 2006 i Mikić, H. "Kulturne industrije i raznolikost kulturnih izraza", SFBC- Grupa za kreativnu ekonomiju, Beograd, 2013.

¹⁰ Copyright-based industries are often labeled as creative or cultural industries. Although creative, cultural and copyright-based industries are terms that tend to be used interchangeably by policy-makers, their meanings and uses are somewhat different. Thus, it is important to make clear the distinction between these three terms. The WIPO Guide defines cultural industries as industries which produce products that have culturally significant content that is reproduced on an industrial scale, i.e. it applies to those industries that combine the creation, production and commercialization of contents, which are intangible and cultural in nature. These contents are typically protected by copyright and they can take the form of goods or services (WIPO, 2003, p.18, 85). On the other hand, creative industries are defined as industries that include the cultural industries plus all cultural or artistic production, whether live or produced as an individual unit. The creative industries are those in which the product or service contains a substantial element of artistic or creative endeavor used in relation to live performances, cultural heritage and similar "high-art" activities. The borderline between the two is often very fine (WIPO 2003, p.18). In fact, most definitions of creative industries involve copyright and related rights. For a discussion, see Towse, R. "Creativity, Copyright and the Creative Industries Paradigm", *Kyklos*, Vol. 63, pp. 461-78, (2010). For example, WIPO states that creative industries are copyright-dependent (WIPO, 2007), i.e. that copyright plays a significant and identifiable role within those industries. Nevertheless, the key aspect of CBIs is their characteristics that once copyright goods have been produced, the process of their reproduction and distribution induces much lower costs.

¹¹ See Government of Serbia, "Strategy of the Intellectual Property Development for the Period of 2011 to 2015" available at http://www.zis.gov.rs/upload/documents/pdf_en/pdf/Strategy%20of%20the%20intellectual%20property%20development%20in%20Serbia.pdf.

policies in relation to the copyright-related industries. In the medium and long term, the results of the study will be conducive to evaluating the growth and development of the copyright-based industries.

To conclude, the *key objectives* of the study are to:

- Quantify the economic contribution of copyright- and related rights-based industries in Serbia by estimating their value added to GDP (and GVA), share of national employment and foreign trade;
- Analyze and elaborate on selected copyright and related rights-based industries of importance to Serbia, following the WIPO identification and categorization scheme: their national market structure, value chain, demand and supply patterns, labor market, the role of collective management organizations and other copyright-related organizations;
- Compare the results with other surveys carried out using the WIPO methodology and identify the comparative advantages of the Serbian copyright-based industries;
- Propose policy, strategy and institutional interventions for encouraging the growth and development of copyright-based industries in the country.

1.2 Background Information on the Study

The study was initiated by the Intellectual Property Office of the Republic of Serbia (IPORS) and financially supported by WIPO. In addition to financial support, WIPO provided the methodological framework and advice on the contents and scope of the study, which ensured consistency with comparable studies in other countries. The study was conducted by a team of experts led by Dr. Branko Radulović, Faculty of Law, Department of Economics, University of Belgrade (Sections 1, 3, 4, 5 and Annexes), Dr. Dušan Popović, Faculty of Law, Department of Civil Law, University of Belgrade (Section 2) and Miss Dragana Aleksić, Office for Regulatory Impact Assessment, Government of Serbia (Section 5). Mr. Andra Milojić, assistant director, and Mrs. Sanja Bradarić both from the National Accounts, Prices and Agriculture Department of the Statistical Office of the Republic of Serbia (SORS) have provided data and inputs needed for calculations. Mrs. Bradarić also provided key inputs necessary to calculate gross value added and the employment contribution of copyright-based industries. Of great importance was the close cooperation with other experts of the SORS, Mrs. Svetlana Jelić, Mr. Rade Ćirić, Mrs. Mirjana Smolčić, Mrs. Marina Pavlović, Mrs. Suzana Karamarković and Mrs. Dragana Šipić. The team worked under the close supervision of the director of IPORS, Mrs. Branka Totić, while Mrs. Tatjana Stevanović helped in the organization of focus groups and contacts with collective management organizations. On behalf of FREN, Jelena Žarković Rakić and Aleksandar Radivojević provided valuable organizational support.

The delegated foreign consultant appointed by WIPO was Dr. Rimantas Juozas Vaicenavičius, Mykolas Romeris University, the author of a similar study prepared in Lithuania in 2011, while Christopher Kalanje, Counsellor, Creative Industries Section of WIPO, monitored the execution of the project at all stages. Dr. Dimiter Gantchev, Acting Director of the Creative Industries Division, WIPO also provided valuable feedback.

The authors wish to express their gratitude to the representatives of the WIPO and especially to DR. Vaicenavičius for suggesting an algorithm on how to design the NACE 2 classification. We also wish to thank the SORS, the National Bank of Serbia and collective management organizations for their invaluable help in providing the statistical data, and Miss Hristina Mikić, Director of the Creative Economy Group in Belgrade, for reviewing the study and her valuable comments and suggestions. The assistance of the companies and institutions and experts who offered us valuable information during interviews was also greatly appreciated.

1.3 Structure of the Study

The study aims at presenting the economic contribution of the copyright-based industries to Serbia's economy. However, for a better understanding of economic processes in the sector, a brief legal analysis of copyright is presented as well (see **Section 2**). This section provides the legal background for copyright-related works and the rights of relevant subjects. It also presents the development of the copyright and the related rights system in Serbia, as well as Serbia's participation in international conventions and agreements. In addition, this part examines substantive limitations and infringements of copyright and related rights, as well as collective rights management and collective management associations operating in Serbia.

Section 3 briefly considers several aspects of the methodology. First, we discuss the list of copyright activities included in the study. Since the WIPO methodology was published, the classification has changed over time and, although close, different underlying frameworks still do not allow the classification of copyright-based industries to be closely related. Correspondence tables were a necessary tool for comparing statistical data collected and presented using WIPO methodology classifications. More precisely, correspondence tables between NACE Rev. 1.1. and NACE Rev. 2 version were used to examine the detailed changes that have taken place in the revision process. Specific technical details related to this section and detailed correspondences between NACE Rev. 2 and NACE Rev. 1.1 are presented in Annex 1 of the study. This section also discusses other important methodological choices related to the copyright factors and shared activities.

Section 4 presents the key results of this study. It provides an overview of the Serbian copyright-industries by presenting the copyright's economic contributions to the gross value added, employment and foreign trade. It is then followed by a description of the structure of the copyright-based industries, i.e. relative shares of the core, interdependent, partial and non-dedicated support industries, and identifies several leading sectors in each group. Comparing the value added contribution with the employment contributions allows for the examination of the productivity of the copyright-based industries and its constituents. To examine longer-term effects, the authors have decided not to analyze the economic contribution to the gross value added for a single year, but rather to investigate a five-year period presenting data for three years – 2008, 2010 and 2012. The authors have paid great attention to the reliability and consistency of economic analysis, to the analytical approach applied in the study, and especially to issues related to the classification of copyright-related industries. The final part of this section shows the structure and dynamics of the imports and exports of the economic sectors monitored in each group. It also compares the results computed with those of other countries and draws conclusions about the place and specific characteristics of the Serbian copyright-based industries. Specific datasets were derived and calculations were performed based on the data received from the Statistical Bureau of the Republic of Serbia, while additional data related to imports and exports of services were also obtained from the National Bank of Serbia.

Section 5 outlines the development and current situation in core copyright industries and **Section 6** presents conclusions of the analysis and recommendations. The recommendations offer guidelines to the Serbian national authorities on how to utilize the results of this study and how the copyright economic contribution could be measured in Serbia in the most cost-conscious way.

It should be noted that the sources for the external data in the tables and graphs are explicitly mentioned immediately below; otherwise, the authors handled all the calculations of the data provided.

2. COPYRIGHT LAW IN SERBIA

2.1 Legal Basis of Copyright in Serbia

Pursuant to the Constitution of the Republic of Serbia,¹² copyright belongs to the category of human rights and freedoms for every man and citizen. Article 73.1 of the Constitution of the Republic of Serbia sets forth that scientific and artistic creativity is unrestricted. Moreover, Article 73.2 sets forth that oral and pecuniary rights are guaranteed to authors of scientific and artistic works, in accordance with the law. Pursuant to the Constitution, the Republic of Serbia shall assist and promote the development of science, culture and art. The main legislative source of copyright in Serbia is the Copyright and Related Rights Act, adopted in 2009, and amended in 2011 and 2012.¹³ The Copyright and Related Rights Act has generally been harmonized with all international treaties, conventions and agreements, which regulate the area of copyright and related rights,¹⁴ as well as with all EU directives concerning copyright and related rights, which were enacted prior to its adoption.¹⁵

The current Copyright and Related Rights Act consists of the following chapters: (1) Subject-matter of the Act; (2) Copyright; (3) Related rights; (4) Exercise of copyright and related rights; (5) Commission for copyright and related rights; (6) Records of works of authorship and subject-matter of related rights; (7) Protection of copyright and related rights; (8) Penal provisions; and (9) Transitional and final provisions. The Government of the Republic of Serbia adopted the following by-laws to implement the Copyright and Related Rights Act:

- Regulation on the conditions which the deposited copies of copyright-protected works and subject matter of related rights need to fulfill, on the entry in the register and deposition of copyright-protected works and subject matter of related rights, and on the contents of the registration of deposited copyright-protected works and subject matter of related rights with the competent authority;¹⁶
- Regulation enumerating a list of the technical devices and audio and visual carriers in relation to which levy is to be paid to owners of copyright and related rights;¹⁷
- Regulation on remuneration of members of the Commission for Copyright and Related Rights.¹⁸

¹² Official Journal of the Republic of Serbia n° 98/2006.

¹³ Official Journal of the Republic of Serbia n° 104/2009, 99/2011, 119/2012.

¹⁴ These are: Berne Convention for the Protection of Literary and Artistic Works (ratification: Official Journal of the Federative Socialist Republic of Yugoslavia – International Treaties n° 4/1986); Universal Copyright Convention as revised at Paris on July 24, 1971 (ratification: Official Journal of the Federative Socialist Republic of Yugoslavia – International Treaties n° 54/73); Convention Establishing the World Intellectual Property Organization (ratification: Official Journal of the Federative Socialist Republic of Yugoslavia – International Treaties n° 31/72, 4/86); Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (ratification: Official Journal of the Federal Republic of Yugoslavia – International Treaties n° 13/2002); Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms (ratification: Official Journal of the Federal Republic of Yugoslavia – International Treaties n° 13/2002); World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement); World Intellectual Property Organization Copyright Treaty (ratification: Official Journal of the Federal Republic of Yugoslavia – International Treaties n° 13/2002); and World Intellectual Property Organization Performances and Phonograms Treaty (ratification: Official Journal of the Federal Republic of Yugoslavia – International Treaties n° 13/2002).

¹⁵ These are: Council Directive 91/250/EEC of May 14, 1991 on the Legal Protection of Computer Programs (Official Journal L122, 17.5.1991); Directive 2009/24/EC of the European Parliament and of the Council of April 23, 2009 on the Legal Protection of Computer Programs (codified version) (Official Journal L111, 5.5.2009); Directive 2006/115/EC of the European Parliament and of the Council of December 12, 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property (codified version) (Official Journal L376, 27.12.2006); Council Directive 93/83/EEC of September 27, 1993 on the Coordination of Certain Rules Concerning Copyright and Rights Related to Copyright Applicable to Satellite Broadcasting and Cable Retransmission (Official Journal L248, 6.10.1993); Directive 2006/116/EC of the European Parliament and of the Council of December 12, 2006 on the Term of Protection of Copyright and Certain Related Rights (codified version) (Official Journal L372, 27.12.2006); Directive 96/9/EC of the European Parliament and of the Council of March 11, 1996 on the Legal Protection of Databases (Official Journal L077, 27.3.1996); and Directive 2001/29/EC of the European Parliament and of the Council of May 22, 2001 on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society (Official Journal L167, 22.6.2001); Directive 2001/84/EC of the European Parliament and of the Council of September 27, 2001 on the Resale Right for the Benefit of the Author of an Original Work of Art (Official Journal L272, 13.10.2001).

¹⁶ Official Journal of the Republic of Serbia n° 45/2010.

¹⁷ Official Journal of the Republic of Serbia n° 45/2010.

¹⁸ Official Journal of the Republic of Serbia n° 5/2011.

Further to the Copyright and Related Rights Act, the area of copyright and related rights is regulated by the Act on Special Competencies for Efficient Protection of Intellectual Property Rights.¹⁹ This Act has been aligned with the EU Directive on the Enforcement of IP rights.²⁰ In a broader sense, the Act on Optical Discs also forms part of the Serbian copyright and related rights system.²¹ This Act lays down rules on the manufacturing of optical discs, import and export of production parts and equipment used for the manufacturing of optical discs, as well as commercial reproduction, export, import and distribution of optical discs.

2.2 Development of the Copyright and Related Rights System

The development of Serbian copyright and the related rights system may be traced from the end of the nineteenth century and the beginning of the twentieth century. Copyright was already protected prior to the First World War, in parts of Serbia which belonged to the Austro-Hungarian Empire. However, the development of Serbian copyright and the related rights system *sensu stricto* should be connected with the adoption of the first Copyright Act of the Kingdom of Yugoslavia in 1929. This Act was drafted under the strong influence of the German Copyright Act and was generally harmonized with the Berne Convention, to which the Kingdom of Yugoslavia acceded in 1930.

Following the Second World War, the Kingdom of Yugoslavia was succeeded by the Democratic Federal Yugoslavia (later: Socialist Federative Republic of Yugoslavia). The significant social and political changes in the country were followed by the establishment of the new legal system. The first Copyright Act in socialist Yugoslavia was adopted in 1946. This Act was not aligned with the provisions of the Berne Convention, to which the country acceded for the second time in 1951. Further harmonization of the national copyright system with international conventions was achieved through the adoption of subsequent Copyright Acts in 1957, 1968 and 1978. Copyright and related rights were efficiently protected to an extent which reached beyond the general context of social organization at the time. From 1990 onwards the copyright and the related rights system experienced rapid progress. The Federal Republic of Yugoslavia, which succeeded to the SFR Yugoslavia, acceded to remaining copyright and related rights conventions and started harmonizing its national copyright law with the European Union directives and the Agreement on Trade-Related Aspects of Intellectual Property Rights. This was achieved through the adoption of the Copyright and Related Rights Act in 1998. The rapid harmonization of the Serbian copyright and the related rights system continued with the adoption of the new Copyright and Related Rights Act in 2004 and the present Act in 2009. From the information above, it could be validly concluded that Serbia's legislation is integrated into the international system for the protection of copyright and related rights. Serbia's national copyright and related rights system is ready for integration into the European Union system, given that Serbia is a candidate country awaiting accession to the EU.²²

2.3 The Author and His/Her Work

In Serbian law, an author is a natural person who has created a work. The work of an author is an original intellectual creation, expressed in a certain form, regardless of its artistic, scientific or other value, its purpose, size, contents and way of manifestation, as well as the permissibility of public communication of its contents. Copyright protects expressions and not ideas, procedures and methods of operations, or mathematical concepts as such. Copyright does not protect concepts, principles and instructions included in a work either. The works protected by copyright are mentioned by way of example in the Copyright and Related Rights Act:

- written works (books, brochures, articles, translations, computer programs in any form of their expression, including their preparatory design material and other);
- spoken works (lectures, speeches, orations, etc.);
- dramatic, dramatic-musical, choreographic and pantomime works, as well as works originating from folklore;
- music works, with or without words;

¹⁹ Official Journal of the Republic of Serbia n° 46/2006, 104/2009.

²⁰ Directive 2004/48/EC of the European Parliament and of the Council of April 29, 2004 on the Enforcement of Intellectual Property Rights (Official Journal L195, 2.6.2004).

²¹ Official Journal of the Republic of Serbia n° 52/2011.

²² Serbia was granted candidate status on March 1, 2012.

- films (cinematographic and television works);
- fine art works (paintings, drawings, sketches, graphics, sculptures, etc.);
- works of architecture, applied art and industrial design;
- cartographic works (geographic and topographic maps);
- drawings, sketches, dummies and photographs; and
- the direction of a theatre play.

The author of the work is the holder of the copyright. Apart from the author, the holder of the copyright may be a person who acquired the right in accordance with the Copyright and Related Rights Act. A work may be the result of an intellectual effort undertaken by two or more natural persons (co-authors). According to the Copyright and Related Rights Act, a co-author is a natural person who has created a work on the basis of creative work with another person. As a rule, co-authors are joint holders of the work's copyright, unless otherwise provided by the Act or a contract governing their mutual relations. The scriptwriter, director and chief cameraman are regarded as co-authors of a film. If music constitutes an essential component of a film and it has been composed for that film, the composer is also considered a co-author. In a cartoon and/or animated film, or in a film where drawings or animation are its essential elements, the main film-animator is considered to be a co-author of the film.

2.4 Copyright

2.4.1 *The principle of private law*

The principle of private law corroborates the Copyright and Related Rights Act. Copyright is a single right which consists of three components: (1) moral rights of an author, which protect the author's personal connections with his/her work; (2) pecuniary or economic rights of an author, which protect the author's economic interests in his/her work; and (3) other rights of an author, which protect other interests of an author in his/her work. Copyright as a whole is not transferable, except by means of succession.²³ Still, the author is free to dispose of the economic component of his/her copyright. Copyright may not be subject to the levy of execution.

2.4.2 *Pecuniary rights of an author*

The Copyright and Related Rights Act states that every author has the right to exploit his/her work commercially, as well as the work resulting from its modification. The authors are entitled to remuneration for exploitation of their work by another person, unless otherwise provided by the Copyright and Related Rights Act or a contract. The Act lays down several economic rights which correspond to different modalities of use of a work. These are: (1) the reproduction right; (2) the distribution right; (3) the right of rental; (4) the right of representation; (5) the right to transmit public performance of a work by means of technical devices; (6) the right of broadcasting; (7) the right of re-broadcasting; (8) the right of communication to the public of a work by wire or wireless means, including the making available to the public of a work in an interactive way; (9) the right of adaptation; (10) the right of public communication of a broadcasted work; and (11) the right of public communication of a work fixed in an audio and/or visual medium.

Pecuniary rights last for an author's life and 70 years after his/her death. Pecuniary rights of a co-author expire after 70 years from the time of the last co-author's death. Pecuniary rights with respect to the work whose author is unknown (anonymous work or work under a pseudonym) expire after 70 years elapse from the date of the work's disclosure. Should the author reveal his/her identity before the expiration of such term, the duration of pecuniary rights shall be calculated as if the author's identity had been known from the date of disclosure of the work. Pecuniary rights with respect to collective works last for 70 years from the date

²³ The author's heirs may exercise all powers with respect to the author's moral rights, except for the right to publish an undisclosed work, if the author has prohibited it, and the right to modify the work. In addition to the heirs, associations of authors, as well as institutions in the field of culture, science and arts may also protect moral rights in relation to recognition of authorship, protection of integrity of the work, and prohibition of unbecoming exploitation of the work.

of the lawful publication of the work. Where the term of protection runs from the time of disclosure of the work and where the work was disclosed in installments, the term of protection runs for each such installment separately.

2.4.2.1 *The reproduction right*

The reproduction right gives the holder the exclusive right to make one or more copies of his/her work. The author has the exclusive right to authorize or prohibit fixation or reproduction of his/her work in its entirety or in part, by any means, in any form, in any manner, permanently or temporarily, directly or indirectly. By means of example, the Copyright and Related Rights Act enumerates several reproduction techniques: reproduction by graphic procedures, photocopying and other photographic procedures achieving the same result, sound or visual recording, erecting a work of architecture, and storage of the work in electronic form into the memory of the computer. Reproduction of the copyrighted work exists regardless of the number of copies made, technique by which the work is multiplied or the durability of the copy. The Copyright and Related Rights Act stipulates that the notion of reproduction also cover the operation of the program on the computer.

2.4.2.2 *The distribution right*

The distribution right is defined as the exclusive right to put the original or the copies of the author's work on the market by offering it for sale or offering it in another way to the public for the same purpose. The distribution right also comprises offering copies of the work for the purpose of placing it in circulation, storing copies of the work with the purpose of placing it in circulation, and importing copies of the work.

2.4.2.3 *The right of rental*

The author has the exclusive right to permit or prohibit rental of the originals or copies of his/her work. The notion of rental is understood as making the original or the copies of the work available for use to other persons for a limited period of time and for the purpose of realizing direct or indirect pecuniary benefit. The author who licenses rights to a producer of phonograms and/or videograms retains the right to obtain an equitable remuneration for the rental of the work. The right of rental may not be exercised in respect of a work of architecture, a work of applied art materialized in the form of an industrial or artisan product, or a work that was made or reproduced for the sole purpose of being rented as agreed between the author and owner of a copy of the work.

2.4.2.4 *The right of representation*

The author has the exclusive right to authorize or prohibit public performance of his/her work. The right of representation is structured in a two-fold way. The first aspect concerns the right to perform, where the performance is understood as any means of public communication of non-stage works (speech, music) live to the audience. The second aspect concerns the right to present, where the presentation is understood as any means of live public communication of stage works to an audience (dramatic, dramatic-musical, choreographic, pantomimic works).

2.4.2.5 *The right to transmit public performance of a work by means of technical devices*

The Copyright and Related Rights Act prescribes that the author has the exclusive right to authorize or prohibit the transmission of the performance or presentation of his/her work. The act of transmission is defined as simultaneous public communication of a work that is being performed or presented to the audience present outside the premises where the work is being performed or presented live, by means of technical devices, such as a loudspeaker or a screen.

2.4.2.6 *The right of broadcasting and re-broadcasting*

The author has the exclusive right to authorize or prohibit broadcasting and re-broadcasting of his/her work. The Copyright and Related Rights Act defines broadcasting as an act of public communication of a work by wire or wireless transmission of radio or television program signals intended for public reception (radio broadcasting and cable broadcasting). The notion of broadcasting encompasses satellite transmission as well. If the transmitted signals are encoded, their transmission shall be considered as broadcasting if the broadcasting organization provides the society with special decoding devices or grants permission to acquire them. The Copyright and Related Rights Act defines re-broadcasting as an act of simultaneous communication to the public of a copyrighted work broadcasted in radio diffusion, in an unchanged form and as a whole: (1) when such communication to the public is performed by another broadcasting organization, and not the one which had originally broadcast the work; and (2) when such communication to the public is performed by cable or micro-wave system or when the work is originally broadcasted from another country (cable re-broadcasting).

2.4.2.7 *The right of making a work available to the public in an interactive way*

In line with the rules laid down by the WIPO Internet Treaties and the EU Directive on Copyright and Related Rights in the Information Society, the Copyright and Related Rights Act prescribes the exclusive right of an author to communicate to the public his/her work by wire or wireless means, including making available to the public a work in such a way that members of the public may access the work from a place and at a time individually chosen by them.

2.4.2.8 *The right of adaptation*

Under the Copyright and Related Rights Act, the author has the exclusive right to prohibit or authorize any act of adaptation, arrangement or other alteration of his/her work.

2.4.2.9 *The right of public communication of a broadcast work*

The author has the exclusive right to permit or prohibit any act of communication of his/her work that is being broadcast or re-broadcast simultaneously to an audience in a public place. Such public communication of a broadcast work may, for example, take place in public transportation, restaurants, waiting rooms and the like, by means of such devices as radio receivers or television sets.

2.4.2.10 *The right of public communication of a work fixed in an audio and/or visual medium*

The author has the exclusive right to permit or prohibit the communication of his/her work to the public via an audio and/or visual medium (a record, compact disc, audio cassette, video cassette, film tape, optic disc, slide) by means of technical devices for the reproduction of sound and/or picture.

2.4.3 *Moral rights of an author*

The Serbian Copyright and Related Rights Act provides for the following moral rights of the author: (1) the right to claim authorship of the work; (2) the right to claim the author's name; (3) the right of disclosure; (4) the right of protection of the work's integrity; and (5) the right to oppose unbecoming exploitation of the work. The moral rights of an author are not transferable by contract. The author's heirs may exercise all powers with respect to the author's moral rights, except for the right to publish an undisclosed work, if the author has prohibited it, and the right to modify the work. Apart from the author's heirs, associations of authors and institutions in the fields of culture, science and art may also protect the author's rights relating to authorship, integrity of the work and prohibition of unbecoming exploitation of the work. Moral rights last even after the expiration of the author's pecuniary rights.

2.4.3.1 *Author's rights in relation to the owner of a copyrighted work*

Certain author's rights cannot be categorized as either pecuniary rights or as moral rights. Due to their complex nature, consisting both of economic and (some) personal characteristics, they form the special category of "other rights of an author". These are: (1) right of access to a work; (2) *droit de suite*; (3) right to prevent public presentation of a work; (4) author's priority right of modification of a work of architecture; (5) right to levy; and (6) right to remuneration for public lending. Only those rights which are economic in nature and have significant income potential shall be examined in this study.

2.4.3.2 *Right to levy*

In line with the limitations of the exclusive pecuniary right of reproduction, the work of an author may be reproduced for private or other personal use in the absence of the author's consent. Authors can expect their works to be reproduced for personal non-commercial purposes via sound, picture and text carriers, and have the right to remuneration in case of import and/or sale of technical devices and sound, picture and text carriers, for which it can be assumed that they will be used for such reproduction. In addition, in case copyright-protected works have been reproduced by means of photocopying or similar technique, the author has the right to remuneration from legal or natural persons that provide the photocopying services. This right may be managed only collectively. Debtors are under an obligation to respond to each request for information on the type and quantity of devices/carriers imported or sold, as well as to each request for information on the number of photocopies made, presented by the collective management organizations. The Copyright and Related Rights Act prescribes that a levy needs to be fair, since levy debtors are not users of copyright-protected works and/or subject matter of related rights.

2.4.3.3 *Right to remuneration for public lending*

The author has the right to an "appropriate" remuneration if the original or the copies of his/her work are lent through public libraries or other institutions engaged in lending on a professional basis. Under the Copyright and Related Rights Act, lending is understood as an act of giving the originals or copies of the work to be used for a limited period of time, without realizing direct or indirect economic benefit. The author does not have the right to remuneration when works are lent through national libraries, libraries of public education institutions and public specialized libraries (or when works are mutually lent by these institutions), as well as in case of lending works of the applied arts and industrial design or works of architecture. This right may only be managed collectively.

2.5 **Related Rights**

Under the Copyright and Related Rights Act, the rights related to copyright are: (1) the right of performers; (2) the right of producers of phonograms; (3) the right of producers of videograms; (4) the right of producers of broadcasts; (5) the right of producers of databases; (6) the right of publishers. The provisions of the Copyright and Related Rights Act related to the publishing and communication to the public of a copyrighted work apply to related rights *mutatis mutandis*. As a rule, related rights only have an economic component, whereas their owner does not have moral rights. The only exception is the right of performers, consisting of both an economic and moral component. Related rights are transferable, with the exception of the performers' moral rights.

2.5.1 *Right of performers*

Under the Copyright and Related Rights Act, performers enjoy moral and pecuniary rights in relation to their performance. A performer is an individual who engages in the performance of works (a musician, actor, dancer, performer of pantomimes, singer, or conductor). Persons making only a technical contribution to the performance of works are not considered performers. A performance is defined as an intellectual commodity that originates from the personal engagement of a performer during audio, visual, or audio-visual communication of the author's work. The pecuniary rights of the performer last for 50 years from the date of the performance. If a performance was recorded and lawfully published or communicated to the public within this period, the term of protection shall expire 50 years from the date of the first publication

or communication to the public, whichever date is earlier. A performer's moral rights last even after the expiration of his/her pecuniary rights.

2.5.2 *Right of producers of phonograms*

Phonogram producers have pecuniary rights in relation to their phonograms. A phonogram is any recording of a sound and/or a sequence of sounds on a sound carrier. A producer of a phonogram is any natural or legal person who has organized and financed the production of the phonogram, and who bears the responsibility for the first recording of a sound or a sequence of sounds. The rights of the producer of phonograms last for 50 years from the production of the phonogram. If the phonogram has been lawfully published or communicated to the public within this period, the term of protection shall expire 50 years from the date of the first publication or communication to the public, whichever date is earlier.

2.5.3 *Right of producers of videograms*

Videogram producers have pecuniary rights in relation to their videograms. A videogram is a recording of a film work, as well as a definite sequence of motion pictures with or without the accompanying sound on the carrier of picture, or the carrier of picture and sound. A producer of a videogram (film producer) is any natural or legal person who has, acting on one's own behalf, taken the initiative, gathered financial means, organized, managed and taken the responsibility for the first recording of a film or motion picture with or without sound. The duration of the right of producers of videograms is determined in the same way as the duration of the right of producers of phonograms.

2.5.4 *Right of producers of broadcasts*

Producers of broadcasts have pecuniary rights in relation to their broadcasts. A broadcast producer is any natural or legal person who has organized and financed the production of a broadcast. Under the Copyright and Related Rights Act, a broadcast is defined as an electrical, electromagnetic or another signal converted into audio, visual or audio-visual content that is broadcast for the purpose of being communicated to the public. The rights of the producer of broadcasts last for 50 years from the date of the first broadcasting of the protected broadcast.

2.5.5 *Right of producers of databases*

Under the Copyright and Related Rights Act, database producers enjoy pecuniary rights in relation to their databases. A database is a collection of independent data, works or other materials arranged in a systematic or methodical way, individually accessible by electronic or other means. The protection of databases does not encompass computer programs which are used for the elaboration of the database or work with databases available by electronic means. A producer of a database is any natural or legal person that has created a database, by qualitative and/or quantitative substantial investment in obtaining verification or presentation of its contents.

Database producers' rights last for 15 years from the date of the creation of a database. If a database was made available to the public in whichever manner before the expiry of that term, the term of protection shall expire 15 years from the date when the database was first made available to the public. If substantial changes occur in the selection or arrangement of the contents of a database, the term of protection shall be extended for another 15 years. Any additions, deletions or improvements of a database as a whole or a part thereof, resulting in a new version of such database, are to be considered as substantial changes in the selection or arrangement of the contents of a database.

2.5.6 *Right of publishers*

Under the Copyright and Related Rights Act, any person who, after the expiry of the protection of the author's pecuniary rights, for the first time lawfully publishes or communicates to the public a previously unpublished work has the rights equivalent to pecuniary rights of the author. The duration of the right of publishers of previously unpublished work is 25 years from the date of the first publication or first communication to the

public. The publishers of print editions have the right to levy under the same conditions which are valid for the authors. The right to levy of publishers of print editions lasts for 50 years from the lawful publication of the work.

2.6 Substantive Limitations on Copyright and Related Rights

In line with the EU Directive on Copyright in the Information Society, the Copyright and Related Rights Act prescribes a number of limitations to copyright and related rights. The Copyright and Related Rights Act provides for two different regimes of limitations, one being the suspension of exclusive rights and right to remuneration, and the other the statutory license. For example, exclusive rights and a right to remuneration are suspended if the work is used for educational purposes or in the course of media coverage, while the statutory license is prescribed in cases of a three-dimensional reproduction of works permanently displayed in the streets, squares and other open public places.

2.7 Exercising Copyright

Copyright and related rights can be exercised individually and collectively. Individual management is controlled by means of a contract. Individual management is carried out by the holder of copyright or related right himself/herself or through an agent. Collective management of rights is exercised through collective management organizations, which act in their own name and on behalf of the right owners they represent.

Only one organization may be entrusted with the collective administration regarding the same category of right holders. The collective management organization selected will be the one whose founders represent the majority of right holders with respect to a certain category of rights, and which fulfils organizational, technical and financial conditions to administer efficiently the rights of national and foreign right holders in Serbia and national right holders abroad (e.g. which has the most contracts on mutual representations with foreign collecting societies). The organization which fulfils the criteria set by the Copyright and Related Rights Act shall obtain the operating license. Through the operating license, the organization shall acquire the right to engage in the collective management of copyright and/or related rights for the five-year period. There are currently four collective management organizations in Serbia:

- SOKOJ – music authors' organization;²⁴
- OFPS – phonograms producers' organization;²⁵
- PI – organization for collective management of performers' rights;²⁶ and
- OFA – organization for collective management of rights of authors of photographs.²⁷

The collective management organization performs in particular the following tasks: granting permission for the use of copyrighted works or subject matter of related rights when such permission is necessary pursuant to the Copyright and Related Rights Act; collecting royalties for use; distributing collected royalties between right holders; controlling the use of copyrighted works and subject matter of related rights; and initiating enforcement proceedings in case of infringements.

Under the Copyright and Related Rights Act, the collective management of copyright and related rights is mandatory in respect to the following rights:

- author's right to remuneration for cable re-broadcasting of a copyright-protected work;
- author's right to levy;
- author's right to remuneration from the person who lends copies of his/her work, except computer programs, when such lending is a registered activity of that person;

²⁴ The operating license was issued to SOKOJ in 1998, although the organization has been active in Serbia (and previously in ex-Yugoslavia) for more than 60 years. For more information on SOKOJ, visit: <www.sokoj.rs>

²⁵ OFPS received its operating license in 2002. For more information on OFPS, visit: <www.ofps.org.rs>

²⁶ The operating license was issued to PI in 2007. For more information on PI, visit: <www.pravainterpretatora.org>

²⁷ The operating license was issued in 2013.

- performer's right to remuneration: (i) for broadcasting and re-broadcasting of his/her performance from a published phonogram; (ii) for communication to the public of his/her performance broadcasted from a published phonogram; and (iii) for communication to the public of his/her performance from a published phonogram;
- right of the producer of a published phonogram to remuneration: (i) for broadcasting and re-broadcasting of the phonogram; (ii) for communication to the public of the phonogram; and (iii) for communication to the public of the phonogram which is being broadcasted;
- right of publishers of printed editions to levy; and
- right of phonogram producers, performers and videogram producers to levy.

The tariff is negotiated between the representatives of right holders and users of copyrighted works and the subject-matter of related rights. In case representatives of right holders and users fail to reach an agreement on the tariff, the collective management organization adopts the tariff proposal. The proposal has to be approved by the Intellectual Property Office.

The 2012 Amendments to the Copyright and Related Rights Act introduced significant modifications of the criteria for setting the tariff for the public communication of musical works, performances and phonograms, and in relation to the right to levy.

Firstly, the highest amount of the remuneration paid in accordance with the tariff for public communication of musical works, performances and phonograms cannot exceed 1/12 of the minimum wage in the Republic of Serbia, without taxes and contributions, for users having commercial business premises up to 50 square meters; it cannot exceed 1/10 of the minimum wage in the Republic of Serbia, without taxes and contributions, for users having commercial business premises of 50 to 100 square meters; it cannot exceed 1/8 of the minimum wage in the Republic of Serbia, without taxes and contributions, for users having commercial business premises of 100 to 150 square meters; it cannot exceed 1/6 of the minimum wage in the Republic of Serbia, without taxes and contributions, for users having commercial business premises of 150 to 200 square meters; or for users having commercial business premises of 200 to 300 square meters it cannot exceed 1/3 of the minimum wage in the Republic of Serbia. For each additional 100 square meters, the remuneration is increased to the maximum amount of 1/10 of the minimum wage in the Republic of Serbia, without taxes and contributions. Furthermore, remuneration for public communication of musical works, performances and phonograms in craftsmanship shops is not paid at all.

Secondly, the remuneration paid per every sold or imported technical device that may be used for reproduction of copyrighted works and/or subject matter of related rights, and per every sold or imported text, sound or video carrier, in relation to the right to levy, cannot exceed 1% of the value of a device/carrier, except in case of the sale or import of empty compact discs, empty digital video discs, empty digital video discs of high definition, empty Blu-ray discs, empty mini discs, empty audio cassettes and empty video cassettes, where the amount paid cannot exceed 3% of the value of such carrier.

2.8 Infringements of Copyright and Related Rights

In the Serbian legal system, protection of copyright and related rights from infringement may be claimed within civil, criminal and administrative proceedings. As a rule, the proceedings are initiated by the owners of copyright and related rights. However, certain proceedings (e.g. criminal proceedings for the most serious criminal offenses) are initiated *ex officio*.

The competence for adjudicating in civil actions in the field of intellectual property is vested with the higher courts, while the competence for adjudicating in commercial actions is vested with the commercial courts. Appellate courts, that is, the Commercial Appellate Court is competent in the second instance. The Supreme Court decides on extraordinary legal remedies. However, since fewer than 5% of court cases in Serbia were IP-related,²⁸ judges from the higher and commercial courts rarely had the occasion to decide on this type of disputes, which led to their limited expertise in intellectual property. Therefore, the legislature recently decided to proceed to the concentration of territorial competence of courts of first instance. Since 1 January 2014,

²⁸ In the absence of the official court statistics, we quote the information provided by the Government of Serbia in the 2011-2015 Strategy of Intellectual Property Development (pp. 28-29).

the Higher Court in Belgrade and the Commercial Court in Belgrade are exclusively competent to decide on IP-related disputes in first instance.²⁹ It is expected that this measure will contribute to judges' improved expertise in IP-related disputes.

Most pending civil proceedings are related to collective management of copyright and related rights. A significant number of these proceedings were initiated under the 2004 Copyright Act by the collective management organizations against the users of copyrighted works and subject-matter of related rights that refused to pay the fee. Under the 2004 Act, the collective management organizations were empowered to determine the tariff unilaterally. The fees payable under the tariff were often perceived as inadequate by the users. According to available data, there are approximately 5000 pending proceedings of this type.³⁰ Also, a number of proceedings were initiated under the 2009 Copyright Act. The 2009 Act introduced mandatory negotiations between the collective management organizations and organizations of users of copyrighted works and subject-matter of related rights. In the case when an agreement on the tariff could not be reached, the final decision was adopted by an independent body of experts, the Commission for copyright and related rights, formed within the Intellectual Property Office. Tariffs determined by the Commission were also subject to court proceedings.³¹ Following the entry into force of the 2012 Amendments to the Copyright Act, the Commission for copyright and related rights was dissolved. Now, when the mandatory negotiations between the interested parties fail, the tariff will be determined by the collective management organization(s) and confirmed by the Intellectual Property Office. Such an approval decision by the IP Office may equally be questioned before the court.

The competencies of administrative organs in relation to the enforcement of copyright and related rights are regulated in detail by the Act on Special Competencies for Efficient Protection of Intellectual Property Rights. The administrative bodies in charge of enforcing copyright and related rights are, in particular, the ministries, inspections and the Serbian Broadcasting Agency (RRA).

2.8.1 *Data on unauthorized use of copyrighted work*

According to statistical data on public prosecutions for 2013 obtained from the Intellectual Property Office, the criminal offence of unauthorized use of copyrighted work or other work protected by similar rights stipulated in Article 199 of the Criminal Code was the most common criminal offence in the domain of intellectual property rights in Serbia. The number of charges is still relatively small compared to the widespread unauthorized use of copyrighted work. Data obtained from the Ministry of Interior show that the number of registered criminal acts based on unauthorized use of copyright or other related right is decreasing.

²⁹ Act on the seats and territorial jurisdiction of courts and public prosecutor's offices, Official Journal of the Republic of Serbia n° 101/2013, Arts 4-5.

³⁰ According to the data referring to the period when the 2004 Copyright Act was in force, there are thousands of court proceedings initiated by the collective management organizations against natural and legal persons who did not pay the remuneration for the use of copyright-protected works and subject matter of related rights. Around 2000 proceedings, in which SOKOJ (music authors' organization) is a party to, are currently pending before Serbian courts. Moreover, there are around 3000 proceedings, which OFPS (phonogram producers' organization) is a party to, currently pending before the courts. This information originates from the document explaining the reasons for passing the new Copyright Act (*Obrazloženje Predloga zakona* in Serbian), published by the Government/Serbian Intellectual Property Office in 2009.

³¹ At the moment, there are no official court statistics in Serbia. Therefore, it is not possible to determine precisely the number of such proceedings.

Table 1: Unauthorized use of copyrighted work – criminal offence and total number of verdicts in 2013

Criminal Offence	Unsolved criminal charges from previous period	Criminal charges submitted in reporting period	Indictments in reporting period	Total number of verdicts (number of convictions)
Violation of Moral Right of Author and Performer – Article 198 of the Criminal Code	3	7	2	
Unauthorized Use of Copyrighted Work or other Work Protected by Similar Right – Article 199 of the Criminal Code	158	102	58	89 (83 convictions)
TOTAL	161	109	60	89 (83 convictions)

Source: Intellectual Property Office

Table 2: Criminal acts based on unauthorized use of copyright or other related right (2008-2013)

	2009	2010	2011	2012	2013
Number of criminal acts based on Art 199* of the Criminal Code (unauthorized use of copyright or other related right)	231	216	162	122	63

Source: Ministry of Interior

From 2009 to 2013, the Department for Protection of Intellectual Property Rights at the Customs Office of the Ministry of Finance, detained 18,900 articles such as CDs, DVDs, cassettes, and game cartridges in total, including both recorded (music, film, software, game software) and unrecorded.³² Also, the Section of Market Inspection within the Ministry of Foreign and Home Trade and Telecommunications detained 60,908 articles such as CDs, DVDs and software in the same reporting period.³³

Table 3: The use of illegal software

Description	2011	2012	2013
Number of controls	319	555	573
Number of taxpayers where the use of legal software was identified	164	225	225
Number of taxpayers where the use of illegal software was identified	153	317	348
Number of taxpayers where the purchase of legal software was conducted	120	274	286
Number of taxpayers in the legalization procedure	26	35	45
Number of taxpayers where the charges for economic offences are filed	7	8	6
Number of taxpayers who have uninstalled software and purchased a legal copy during the control proceedings	–	12	11
Number of taxpayers where the violation of license right was identified – notification has been submitted to the BSA for the further proceedings	2	1	–

Source: Department for the Control of the Legality of Software Statistics, Tax Administration, Ministry of Finance

³² Data obtained from the Department for Protection of Intellectual Property Rights at the Customs Office, Ministry of Finance.

³³ Data obtained from the Section of Market Inspection, Ministry of Foreign and Home Trade and Telecommunications.

According to the findings of the BSA Global Software Piracy Studies for 2011 and 2010,³⁴ Serbia is categorized as a high piracy country.³⁵ However, due to the measures of authorized governmental institutions undertaken in the previous period, the Intellectual Property Office expects a drop in the piracy rate of 5% for the period 2012-2013 in the forthcoming study. As shown in the table below, the piracy rate in 2008 and 2010 was 74%, while it decreased by 2% in 2011. Nevertheless, the commercial value of unlicensed software increased.

Table 4: Piracy rates and commercial value of unlicensed software in Serbia

	2006	2007	2008	2009	2010	2011
Piracy rates	78	76	74	74	74	72
Commercial value of unlicensed software (\$M)	59	72	99	67	95	104

Source: Eighth and Ninth Annual BSA Global Software Piracy Studies (2011, 2012)

³⁴ The BSA Global Software Piracy Study contains 182 discrete data inputs for each of the 116 national economies studied. The study covers piracy of all software that runs on PCs, including desktops, laptops, and netbooks. It measures operating systems, systems software (such as databases and security packages), and applications software. Legitimate free software and open-source software are included. The next study will cover the 2012-2013 period.

³⁵ The term piracy generally means any illegal use of determined content, i.e. unlawful production, distribution, sale or any other type of unauthorized use of certain copyrighted works, without the author's permission or paid fees, legal licenses or legally permitted exceptions. See Kalezić, B., "Software Piracy in Serbia", *INFOtheca*, 1, vol. XI: 39a-51a, April 2010.

3. METHODOLOGY

The WIPO methodology is limited to surveying the economic contribution of the copyright-based industries and providing quantifiable characteristics of this contribution.³⁶ We should emphasize that the WIPO methodology attempts to reveal the entire economic contribution of the copyright-based industries. This implies taking into account all activities resulting from the multiple effects of copyright on the economy – those of the creators, the right holders, the distributors, users, equipment manufacturers, advertisers, etc. A number of the initial and even more recent studies are limited to the core industries.³⁷ According to the WIPO *Guidelines*, core industries are industries in which copyright and related rights have the greatest importance – press and literature, visual and graphic arts, music and theater, press, photography and motion pictures, but also radio and television, advertising, software. These industries, “as a category would not exist or would be significantly different without copyright in works or other subject matter” (WIPO, 2003), and they are built upon the so-called actions for creation of the contents and apply to the creation of art (books, paintings, sculptures, theater, motion pictures, musical works, art photography, etc.), computer programs, radio and television programs, advertising, etc. These activities make the greatest contribution to the added value generated by the respective industry. Consequently, all of the VA and employment generated in core copyright industries should be considered as copyright’s contribution to the economy.

In addition to the core copyright industries, the WIPO guidelines also define industries whose activity is related to (“non-core”) copyright industries to various degrees: interdependent, partial and non-dedicated support industries. As these industries are only partly engaged in copyright-related activities, only part of their employment and value added should be considered copyright related. In order to capture the fact that these industries are only partly engaged in copyright-related activities, each industry is assigned a copyright factor. This factor is used to scale down value added and employment with respect to the total contribution of these “non-core” copyright industries to the economy.

The scope of the WIPO *Guide* is limited to surveying the economic contribution of CBIs by considering the three key indicators of the size of these industries: the value added generated by CBI, their share in employment and their contribution to foreign trade. However, the methodology does not address other important aspects related to the functioning of copyright (e.g. the economic impact of copyright law, the valuation of the copyright assets of the corporate sector or the assessment of the effects of copyright piracy) that are left for additional research and methodological development (WIPO, 2003).

3.1 Steps

The first step was to prepare the list of the copyright- and related rights-based industries to be included in the study. We followed Annex I and III of the WIPO *Guide*, as well as several relevant country-specific studies.³⁸ However, previous studies relied on NACE Rev. 1.1 classification of economic activities, while due to availability of data, we had to rely on NACE Rev. 2 classification (see next section). The list was updated several times and adapted to the country-specific situation based on the feedback obtained from the SORS and additional research on the main economic activities of companies registered in the Business Registry.³⁹ The categorization of the copyright and related rights-based industries followed the methodology presented in the WIPO *Guide*. We also identified ten (shared) codes that had to be attributed to several copyright

³⁶ Readers not interested in methodology may wish to skip this section.

³⁷ For the most recent assessment of IPR related industries in the EU (including core copyright industries) see the European Patent Office and the Office for Harmonization in the Internal Market, “Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union Industry-Level Analysis Report”, September 2013, available at http://ec.europa.eu/internal_market/intellectual-property/docs/joint-report-epo-ohim-final-version_en.pdf. The other recent adoption of the WIPO methodology was by the USPTO in its 2012 study, available at http://www.uspto.gov/news/publications/IP_Report_March_2012.pdf. The USPTO study used a narrow approach in defining the industries that could be defined as core copyright-intensive, considering only the industries primarily responsible for the creation and production of copyrighted materials.

³⁸ *The Economic Contribution of Copyright-Based Industries in Bulgaria, Report, May 2007; The Economic Contribution of Copyright-Based Industries in Lithuania, Report, August, 2012; The Economic Contribution of Copyright-Based Industries in Slovenia, Report, March, 2010.*

³⁹ The Register of Financial Statements and Data on Solvency of Legal Entities and Entrepreneurs is a central, public, electronic database of financial statements and data on solvency of legal entities and entrepreneurs that operates within the Business Registration Agency.

industries, and WIPO experts provided additional consultation on shared codes and how to share them among corresponding industries as well as other valuable inputs.

Based on the list of economic activities, the next step was to collect the data and perform data imputations when necessary. As in the other studies, the data were disaggregated to the required (4 digit) level of detail. The third step was to calculate the contribution of the CBIs to gross value added, GDP, employment, and foreign trade. As stated in the introduction, the study followed the GVA approach by measuring value added at basic prices.⁴⁰ Information about net taxes on products is available only at the level of the two-digit "NACE code which is too aggregated for copyright industry analysis".⁴¹ Thus, we had to establish the value added at market prices at the NACE four-digit level and, consequently, for copyright-based industry groups.⁴² Due to data limitations, we had to rely on the supply and use tables for 2008 that are publicly available from the eurostat database.⁴³

3.2 List of Copyright Activities

As stated in the introduction to this section, grouping of copyright and related-rights activities is provided in the WIPO guide. The WIPO Guide provides a list in its Annex II (ISIC Rev.3.1) and Annex III (NACE Rev. 1.1. version). The list contains four types that cluster economic activities according to the extent to which they can be identified with the copyright and related rights. These are:

- The core copyright industries are industries that are wholly engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter. The core copyright group is divided into nine groups – press and literature; music, theatrical productions, operas; motion picture and video; radio and television; photography; software and databases, visual and graphic arts; advertising services; and copyright collecting societies.
- The interdependent copyright industries are industries that are engaged in the production, manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter. The interdependent copyright industries include production, wholesale and retail of TV sets, radios, VCRs, CDs, DVDs and cassette players, electronic games and other similar equipment; computers and computer equipment, musical instruments; photographic and cinematographic instruments; photocopiers; blank recording material; and paper.
- The partial copyright industries are industries in which a portion of the activities is related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales. The partial copyright industries include activities related to apparel, textiles and footwear; jewelry and coins; other crafts; furniture, household goods, china and glass; wall coverings and carpets; toys and games; architecture, engineering and surveying; interior design; and museums.
- The non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries. These industries include general wholesale and retailing, general transportation, and telephony and the Internet.

Thus, the basic unit of analysis in this study is the industry, as defined in the Unique Classification of Activities of the Republic of Serbia ("Jedinstvena klasifikacija delatnosti – JKD 2010") which is identical to the NACE

⁴⁰ As noted in the Lithuanian study "...value added was measured at basic prices or, similarly, at market prices, excluding net taxes on products (taxes minus subsidies). The chosen approach better reflects the value added aspect important to copyright industry, because some copyright sectors are heavily subsidized by the government. If subsidies are high, then they reduce a market price accordingly. This would distort the measurement of the value added that is created."

⁴¹ Ibid.

⁴² We have followed the approach used in the Lithuanian study and assumed that net taxes on products and non-deductible VAT are homogeneously distributed among four-digit codes sharing the same first two digits. Thus, the share of net taxes allocated to four-digit economic activity depends on the value added share of the four-digit activity with respect to the value added at the two-digit level. To obtain necessary weights, i.e. to derive GDP contribution shares from GVA contribution, we used EU averages for taxes less subsidies on products.

⁴³ Supply and Use Tables and Symmetric Input-Output Tables cover 27 EU member states. The database is available at http://epp.eurostat.ec.europa.eu/portal/page/portal/esa95_supply_use_input_tables/data/workbooks/EU27_SIoT_2008_4dedicatedsection.xlsx.

Rev. 2 classification used by EUROSTAT.⁴⁴ Serbian classification is divided into 22 sections, which are further subdivided into 88 divisions (often referred to as the 2-digit level), 272 groups (3-digit level) and 615 classes (4-digit level).⁴⁵ An example of the hierarchical structure of the classification is provided in Figure 1.

Data based on NACE Rev. 2 classification are available for the more recent statistical series, and the recently completed survey “Structure of operational income and costs of legal entities and unincorporated enterprises” represents the first step in the creation of supply and use tables for Serbia.⁴⁶ As there are no readily available back-cast time series (for the last three years) based on NACE Rev. 1.1 classification, the Serbian study had to rely on the newer NACE Rev. 2 classification. However, to improve comparability and control the consistency of obtained results, the study provides 2008 (as a reference year for dual coding) estimates for both classifications. On the one hand, this will make international comparisons of the Serbian copyright economy less comparable. On the other hand, this forced methodological choice still allows for examination of development of CBLs’ contributions to the Serbian economy, throughout the last business cycle. Also, this methodological choice will make the results of the study easily comparable with a follow-up study of the Serbian CBLs. The alternative was to use data up until 2008, but the team concluded that this study would be of little relevance for policy makers and other stakeholders.

The Serbian study is the first to base its estimates on NACE Rev. 2 classification. To do so required the laborious task of finding adequate correspondence between old and new classifications and filling in the remaining gaps. Correspondence tables are necessary tools when the classification changes over time. We used EUROSTAT’s correspondence tables that describe detailed changes that have taken place in the revision process. However, there is no straightforward equivalence between the NACE Rev. 1.1 and NACE Rev. 2 classifications.⁴⁷

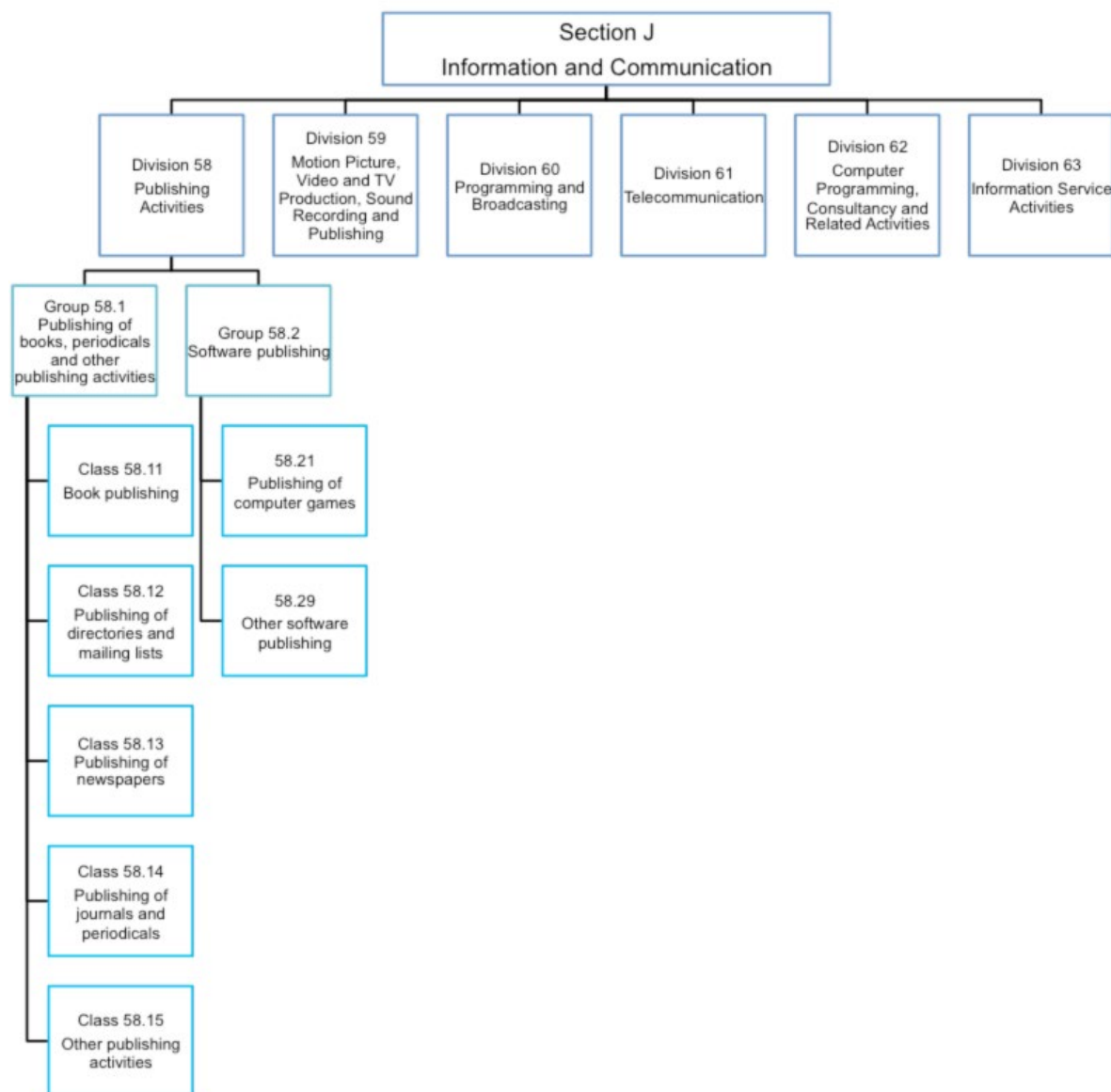
⁴⁴ With respect to the classification of activities, the Republic of Serbia has adopted the standards of the European statistical system. The classification of activities is prescribed by the Law on Classification of Activities (“RS Official Gazette”, no. 104/09) and the related Decree of the Government from July 29th, 2010 (“Official Gazette of RS”, no. 54/10). The decree provides detailed descriptions for each category of classification, including lists of products or services that do not belong to a particular category. The classification of activities is, without any changes, a translation of the standard classification of activities of the EU, i.e. NACE Rev. 2 (Regulation of the European Parliament and the Council no. 1893/2006).

⁴⁵ In Serbia the company identification code is assigned to a business entity upon registration by the Statistical Office of Serbia. The company code also serves as the registration number. Simultaneously, the company registers its prevailing activity (but it can also carry on all other business). In practice, the main business activity sometimes does not reflect the real business of the company, or companies are often changing their main activity code.

⁴⁶ The objective of the survey was to compile the data required for calculating production and technical coefficients needed for the creation of supply and use tables, on which any further development of input-output statistics will be based.

⁴⁷ See eurostat, “Statistical classification of economic activities in the European Community”, eurostat Methodologies and Working Papers, (2008), available at http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF.

Figure 1: An example of the hierarchical structure of the classification



The previous version (NACE Rev. 1.1) had 17 sections and 62 divisions, while the new version (NACE Rev. 2) has 22 sections and 88 divisions. At the highest level of NACE, most sections can be easily compared with the previous version of the classification. However, the introduction of some new concepts at the section level makes overall comparisons between the two versions almost unmanageable. Above all, there is lack of one-to-one correspondence between the two classifications, especially for copyright-based activities. Several NACE Rev. 2 codes might correspond to one NACE Rev. 1.1 code, and *vice versa*. Furthermore, the detail of the classification has substantially increased. Therefore, in order to create the final list of copyright-intensive industries on the basis of the NACE Rev. 1.1 classification, it was necessary to carry out a detailed analysis of the NACE Rev. 2 description of the industries in order to determine which industry codes provided the closest match. For the purpose of this study, the complete detailed correspondences table for NACE Rev. 2 and NACE Rev. 1.1 are presented in the Annex.⁴⁸ However, we should note that a classification of economic activities is independent from CBIs, and in both cases several economic activities fall into several categories, and their contribution is divided using adequate sharing patterns that we describe in the next section.

⁴⁸ As a result, the Serbian study includes 163 classes, compared to 140 classes in the Lithuanian study, and even more compared to other studies based on the old classification.

In addition, based on interviews and assessments of companies, we decided either to add or to exclude specific activities (e.g. we decided to include photocopying, document preparation and other specialized office support activities as basically all registered companies' activities that are completely related to copyright and related rights). Finally, we should note that the activity codes selected by companies are quite often wrong, and correcting them is very difficult. Whenever feasible, we made appropriate corrections (e.g. in the case of several large TV stations registered as cable telecommunications companies).

Table 5: List of activities⁴⁹

CBI	GROUP ⁵⁰	JKD 2010 (NACE Rev. 2)	CLASS
Core Copyright Industries	I.1 Press and literature	58.11	Book publishing
		58.12	Publishing of directories and mailing lists
		58.13	Publishing of newspapers
		58.14	Publishing of journals and periodicals
		58.19	Other publishing activities
		18.11	Printing of newspapers
		18.12	Other printing
		18.14	Binding and related services
		18.13	Pre-press and pre-media services
		47.61	Retail sale of books in specialized stores
		47.62	Retail sale of newspapers and stationery in specialized stores
		47.79	Retail sale of second-hand goods in stores
		74.30	Translation and interpretation activities
		63.91	News agency activities
		90.03	Artistic creation
		91.01	Library and archives activities
		82.19	Photocopying, document preparation and other specialized office support activities
	I.2 Music, theater, opera	59.20	Sound recording and music publishing activities
		18.20	Reproduction of recorded media
		47.43	Retail sale of audio and video equipment in specialized stores
		47.63	Retail sale of music and video recordings in specialized stores
		46.43	Wholesale of electrical household appliances
		90.01	Performing arts
		90.04	Operation of arts facilities
		93.29	Other amusement and recreation activities
		90.02	Support activities to performing arts

⁴⁹ For a more detailed description of activities see Annex 1.

⁵⁰ The "roman numerals" in the table are used to identify categories and groups of industries throughout the study.

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Core Copyright Industries (continued)	I.3 Motion picture and video	59.11	Motion picture, video and television program production activities
		59.12	Motion picture, video and television program post-production activities
		59.13	Motion picture, video and television program distribution activities
		59.14	Motion picture projection activities
		77.22	Renting of video tapes and disks
		46.43	Wholesale of electrical household appliances
		47.43	Retail sale of audio and video equipment in specialized stores
		18.20	Reproduction of recorded media
	I.4 Photography	74.20	Photographic activities
	I.5 Visual and graphic arts	90.03	Artistic creation
		91.02	Museums activities
	I.6 Radio and TV	59.11	Motion picture, video and television program production activities
		59.12	Motion picture, video and television program post-production activities
		60.10	Radio broadcasting
		60.20	Television programming and broadcasting activities
	I.7 Software and databases	18.20	Reproduction of recorded media
		58.21	Publishing of computer games
		58.29	Other software publishing
		62.01	Computer programming activities
		62.02	Computer consultancy activities
		62.09	Other information technology and computer service activities
	I.8 Advertising services	63.11	Data processing, hosting and related activities
		73.11	Advertising agencies
	I.9 Collective societies	73.12	Media representation
		n..a.	Collective societies

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Interdependent Copyright Industries	II.1 TV Sets, Radios, VCRs, [...] and Other Similar Equipment	26.40	Manufacture of consumer electronics
		46.43	Wholesale of electrical household appliances
		47.43	Retail sale of audio and video equipment in specialized stores
	II.2 Computers and equipment	26.20	Manufacture of computers and other information-processing equipment
		46.51	Wholesale of computers, computer peripheral equipment and software
		46.52	Wholesale of electronic and telecommunications equipment and parts
		77.33	Renting and leasing of office machinery and equipment (including computers)
	II. 3 Photocopiers	28.23	Manufacture of office machinery
	II. 4 Musical instruments	32.20	Manufacture of musical instruments
	II. 5 Photographic and cinematographic instruments	26.70	Manufacture of optical instruments and photographic equipment
		46.43	Wholesale of electrical household appliances
	II. 6 Blank recording material	26.80	Manufacture of magnetic and optical media
	II. 7 Paper	17.11	Manufacture of pulp
		17.12	Manufacture of paper and paperboard
		28.95	Manufacture of machinery for paper and paperboard production
		46.76	Wholesale of other intermediate products
		47.62	Retail sale of newspapers and stationery in specialized stores

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Partial Copyright Industries	III. 1 Apparel, textiles and footwear	13.10	Preparation and spinning of textile fibers
		13.20	Weaving of textiles
		13.30	Finishing of textiles
		13.92	Manufacture of made-up textile articles, except apparel
		13.91	Manufacture of knitted and crocheted fabrics
		14.31	Manufacture of knitted and crocheted hosiery
		14.39	Manufacture of other knitted and crocheted apparel
		14.11	Manufacture of leather clothes
		14.12	Manufacture of work wear
		14.13	Manufacture of other outerwear
		14.14	Manufacture of underwear
		14.19	Manufacture of other wearing apparel and accessories
		15.11	Tanning and dressing of leather; dressing and dyeing of fur
		15.12	Manufacture of luggage, handbags and the like, saddlery and harness
		15.20	Manufacture of footwear
		46.64	Wholesale of machinery for the textile industry and of sewing and knitting machines
		46.42	Wholesale of clothing and footwear
		47.51	Retail sale of textiles in specialized stores
		47.71	Retail sale of clothing in specialized stores
		47.72	Retail sale of footwear and leather goods in specialized stores
	III. 2 Jewelry and coins	32.11	Striking of coins
		32.12	Manufacture of jewelry and related articles
		32.13	Manufacture of imitation jewelry and related articles
		47.77	Retail sale of watches and jewelry in specialized stores
	III. 3 Other crafts	32.99	Other manufacturing n.e.c.
	III. 4 Furniture	31.01	Manufacture of office and shop furniture
		31.02	Manufacture of kitchen furniture
		31.09	Manufacture of other furniture
		31.03	Manufacture of mattresses
		47.59	Retail sale of furniture, lighting equipment and other household articles in specialized stores
		16.29	Manufacture of other wood products; manufacture of articles of cork, straw and plaiting materials

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Partial Copyright Industries (continued)	III. 5 Household goods, china and glass	23.11	Manufacture of flat glass
		23.12	Shaping and processing of flat glass
		23.13	Manufacture of hollow glass
		23.14	Manufacture of glass fibers
		23.19	Manufacture and processing of other glass, including technical glassware
		23.20	Manufacture of refractory products
		23.41	Manufacture of ceramic household and ornamental articles
		23.42	Manufacture of ceramic sanitary fixtures
		23.43	Manufacture of ceramic insulators and insulating fittings
		23.44	Manufacture of other technical ceramic products
		23.49	Manufacture of other ceramic products
		25.99	Manufacture of other fabricated metal products n.e.c.
		27.40	Manufacture of electric lighting equipment
	III. 6 Wall coverings and carpets	13.93	Manufacture of carpets and rugs
		17.24	Manufacture of wallpaper
		17.29	Manufacture of other articles of paper and paperboard
		47.53	Retail sale of carpets, rugs, wall and floor coverings in specialized stores
		47.19	Other retail sale in non-specialized stores
	III. 7 Toys	32.40	Manufacture of games and toys
		47.65	Retail sale of games and toys in specialized stores
	III. 8 Architecture, Engineering, surveying	71.11	Architectural activities
		71.12	Engineering activities and related technical consultancy
	III. 9 Interior design	74.10	Specialized design activities
	III. 10 Museums	91.02	Museums activities

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Non-dedicated Support Industries	IV. 1 General wholesale and retailing	46.11	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods
		46.12	Agents involved in the sale of fuels, ores, metals and industrial chemicals
		46.13	Agents involved in the sale of timber and building materials
		46.14	Agents involved in the sale of machinery, industrial equipment, ships and aircraft
		46.15	Agents involved in the sale of furniture, household goods, hardware and ironmongery
		46.16	Agents involved in the sale of textiles, clothing, fur, footwear and leather goods
		46.17	Agents involved in the sale of food, beverages and tobacco
		46.18	Agents specialized in the sale of other particular products
		46.19	Agents involved in the sale of a variety of goods
		46.41	Wholesale of textiles
		46.43	Wholesale of electrical household appliances
		46.44	Wholesale of china and glassware and cleaning materials
		46.45	Wholesale of perfume and cosmetics
		46.46	Wholesale of pharmaceutical goods
		46.47	Wholesale of furniture, carpets and lighting equipment
		46.48	Wholesale of watches and jewelry
		46.49	Wholesale of other household goods
		46.52	Wholesale of electronic and telecommunications equipment and parts
		46.61	Wholesale of agricultural machinery, equipment and supplies
		46.62	Wholesale of machine tools
		46.63	Wholesale of mining, construction and civil engineering machinery
		46.64	Wholesale of machinery for the textile industry and of sewing and knitting machines
		46.69	Wholesale of other machinery and equipment
		46.73	Wholesale of wood, construction materials and sanitary equipment
		46.90	Non-specialized wholesale trade
		47.11	Retail sale in non-specialized stores selling predominantly food, beverages or tobacco
		47.19	Other retail sale in non-specialized stores
		47.54	Retail sale of electrical household appliances in specialized stores
		47.78	Other retail sale of new goods in specialized stores
		47.79	Retail sale of second-hand goods in stores
		47.89	Retail sale via stalls and markets
		47.91	Retail sale via mail-order houses
		47.99	Other non-store retail sale

Table 5: List of activities (continued)

CBI	GROUP	JKD 2010 (NACE Rev. 2)	CLASS
Non-dedicated Support Industries (continued)	IV. 2 General transportation	49.10	Passenger rail transport, interurban
		49.20	Freight rail transport
		49.31	Urban and suburban passenger land transport
		49.32	Taxi operation
		49.39	Other passenger land transport n.e.c.
		49.41	Freight transport by road
		50.30	Inland passenger water transport
		50.40	Inland freight water transport
		51.10	Passenger air transport
		51.21	Freight air transport
		52.10	Warehousing and storage
		52.21	Service activities incidental to land transportation
		52.22	Service activities incidental to water transportation
		52.23	Service activities incidental to air transportation
		52.24	Cargo handling
		52.29	Other transportation support activities
		53.10	Postal activities under universal service obligation
		53.20	Other postal and courier activities
		79.11	Travel agency activities
	IV.3 Telephony and internet	61.10	Wired telecommunications activities
		61.20	Wireless telecommunications activities
		61.30	Satellite telecommunications activities
		61.90	Other telecommunications activities

3.3 Shared Activities

This section provides an overview of the methodology for establishing the relative weight of activities related to copyright in the mixed or undifferentiated codes in which the relevant copyright-related economic activities have been bundled with other activities unrelated to copyright. In the first step, twelve mixed or undifferentiated codes that do not allow for a precise specification of the economic contribution of sectors based on copyright and neighboring rights were identified and examined. In the next step, the weights (attribution factors), which allocate the appropriate percentage contribution to each group, were derived.⁵¹ These mixed or undifferentiated codes that had to be attributed to several copyright industries are referred to as shared in this study.⁵² As the shared activities constitute only a small fraction of overall copyright activities, there was no particular need to derive separate copyright estimates for each year.

Because the study focuses on the value added and employment measures, it is recommended to estimate two separate attribution factors (one for the share for GVA and another for the employment). However, we had to obtain separate attribution factors for value added and employment only in one case. For the foreign trade measure, the value added sharing factors were applied. The methodology used in weighting the data by each code is described below.

⁵¹ As stated in the Lithuanian study, this approach is consistent with the WIPO Guide Annex I, even though it is not explicit in Annex III of the WIPO Guide.

⁵² Similarly, codes attributed to single industry are referred to as single in this study.

3.3.1 Attribution of NACE Rev. 2 Code 18.20 Reproduction of recorded media

Code 18.20 – Reproduction of recorded media aggregates several NACE Rev. 1.1 codes (22.31, 22.32 and 22.33). Reproduction of recorded media includes three previously separate codes: reproduction from master copies of a) gramophone records, compact discs and tapes with music or other sound recordings; b) records, compact discs and tapes with motion pictures and other video recordings; and c) software and data on discs and tapes. Due to the aggregation of several old codes, code 18.20 is incompatible with copyright analysis needs and has to be shared. To allocate shares we used 2008 data based on NACE Rev. 1.1. Code 18.20 is the only code for which we had to obtain separate attribution factors for GVA and employment.

Table 6: Attribution of NACE Rev. 2 Code 18.20 Reproduction of recorded media

NACE Rev. 2 Activity Description		NACE Rev. 1.1 Activity Description		2008 Distribution		Allocation
				GVA	Employment	
18.2	Reproduction of recorded media	22.31	Reproduction of sound recording	46%	23%	I.2
		22.32	Reproduction of video recording	2%	4%	I.3
		22.33	Reproduction of computer media	52%	73%	I.6

3.3.2 Attribution of NACE Rev. 2 Code 46.43 Wholesale of electrical household appliances

Code 46.43 Wholesale of electrical household appliances includes the wholesale of products that are related to several groups: a) wholesale of electrical household appliances; b) wholesale of radio and television equipment; c) wholesale of photographic and optical goods; d) wholesale of electrical heating appliances; and e) wholesale of recorded audio and video tapes, CDs, DVDs. Code 46.43 in NACE Rev. 2 is related to NACE Rev. 1.1 code 51.43 Wholesale of electrical household appliances and radio and television goods, and code 51.47 Wholesale of other household goods included the wholesale of photographic and optical goods.⁵³

In determining the ratio of value distribution of mixed code 46.43 between I.2, I.3, II.1 and II.4, we used results from the Bulgarian and the Lithuanian study, and the ratio in sales volume of the respective groups of goods according to data on trade turnover by goods groupings.⁵⁴ As previously stated, we did not calculate different sharing factors for GVA and employment.

Table 7: Attribution of NACE Rev. 2 Code 46.43 Wholesale of electrical household appliances

Activity Description	Allocation					Total
	I.2	I.3	II.1	II.4	IV.1	
NACE Rev. 1.1 (Redistribution in Bulgarian and Lithuanian studies)						
51.43 Wholesale of electrical household appliances and radio and television goods	0.6	0.6	33.8	–	65.0	100.0
NACE Rev. 2 (Redistribution in Serbian study)						
46.43 Wholesale of electrical household appliances	0.8	0.8	33.0	2.0	63.4	100.0

3.3.3 Attribution of NACE Rev. 2 Codes 47.43 Retail sale of audio and video equipment in specialized stores and 47.63 Retail sale of music and video recordings in specialized stores

Code 47.43 Retail sale of audio and video equipment in specialized stores also includes three subgroups: retail sale of radio and television equipment, retail sale of audio and video equipment, retail sale of CDs, DVDs and other players and recorders. Similarly, code 47.63 includes three subgroups: retail sale of musical records, audio tapes, compact discs and cassettes, retail sale of video tapes and DVDs, and retail sale of blank tapes

⁵³ However, code 51.43 was further divided – code 46.47 absorbed wholesale of lighting equipment, while code 46.52 absorbed blank audio and video tapes, diskettes, CDs and DVDs.

⁵⁴ See http://webzr.stat.gov.rs/WebSite/repository/documents/00/01/17/78/13_Unutrasnja_trgovina.pdf.

and discs. These two codes are closely related to NACE Rev. 1.1 code 52.45 Retail sale of electrical household appliances and radio and television goods. However, these two codes are better suited to the needs of copyright economic analysis. In 2008 and 2010, for code 47.63 there were no companies or entrepreneurs registered, and in the year 2012 only one entrepreneur who submitted financial statements was registered. Consequently, we decided to share GVA only for code 47.43.

Table 8: Attribution of NACE Rev. 2 Code 47.43 Retail sale of audio and video equipment in specialized stores

NACE Rev. 1.1	Activity Description	NACE Rev. 2	Activity Description	Allocation (Group)		
52.45	Retail sale of electrical household appliances and radio and television goods	47.43	Retail sale of audio and video equipment in specialized stores	15% (I.2)	15% (I.3)	70% (II 1)
		47.54	Retail sale of electrical household appliances in specialized stores			
		47.59	Retail sale of furniture, lighting equipment and other household articles in specialized stores			
		47.63	Retail sale of music and video recordings in specialized stores	-	-	-

A closer inspection of businesses engaged in the retail sale of compact discs, DVDs and other media showed that they are registered under 47.43. Consequently, we have decided to allocate 47.43 to three groups: 15% to I.2 music, opera and theater; 15% to I.3 motion, picture and video; and 70% to II.1 TV sets, radios, VCRs, and other similar equipment.

3.3.4 Attribution of NACE Rev. 2 Code 47.79 – Retail sale of second-hand goods in shops

Code 47.79 – Retail sale of second-hand goods in shops – covers four subgroups: sale of second-hand books; sale of other second-hand articles; sale of antiques; and activities of auctioning houses. The analysis of the companies shows that they are mainly shops that sell second-hand clothes. Based on the SORS expert assessment, we decided to attribute to the first group – sale of second-hand books, 10% of value added under this code, which is included in the book-publishing and printing sector of the core copyright-based industries. The remaining 90% share of value added under code 52.50 is included in the total wholesale and retail in the group of non-specialized, supporting industries.⁵⁵

3.3.5 Attribution of NACE Rev. 2 Codes 59.11 – Motion picture, video and television program production activities and 59.12 – Motion picture, video and television program post-production activities

While the new treatment of information and communication activities in NACE Rev. 2 provides a more consistent approach than the previous version of NACE, some codes now need to be shared. For instance, NACE Rev. 2 code 59.11 compared to NACE Rev. 1.1 code 92.11 merges two activities. In addition to motion picture and video production, code 59.11 also includes television program production activities. Thus, there is a need to determine attribution factors for groups I.3 and I.4. Again we rely on comparative data, i.e. available data based on NACE Rev. 1.1 for 2008. To obtain value containing only television-related activities, from the GVA obtained for NACE Rev. 1.1 code 92.2 radio and television activities, we deduct GVA NACE Rev. 2 Code 60.1 Radio Broadcasting. This allows us to obtain proxy values for NACE Rev. 2 code 59.11 and respective allocations.

⁵⁵ Unlike Bulgaria and Lithuania, we decided not to add 10% to the value added to the group covering sale of antiques (included in museums within the partial copyright industries).

Table 9: Attribution of NACE Rev. 2 Code 59.11 – Motion picture, video and TV program production activities

	NACE Code and Name			Value RSD,000	Allocation (Group)
A	Rev. 1.1	92.11	Motion picture and video production	752,940	45.5% (I.3)
B	Rev. 1.1	92.2	Radio and television activities	1,369,436	
C	Rev. 2	60.1	Radio broadcasting	466,215	
D=B-C			Television activities	903,221	54.5% (I.4)
A+D	Rev. 2	59.11	Motion picture, video and television program production activities		100%

We applied the same approach for code 59.12 – Motion picture, video and television program post-production activities.

3.3.6 Attribution of NACE Rev. 2 Code 90.03 – Artistic creation

The activities under this code fall under two major copyright groups: (1) publishing and printing and (2) visual and graphic arts. More specifically, this class includes the activities of individual artists (such as sculptors, painters, cartoonists, engravers, etchers, etc.), activities of individual writers (including fictional writing, technical writing, etc.), activities of independent journalists, and the restoration of works of art such as paintings, etc.

Code 90.03 – Artistic creation – absorbed part of NACE Rev 1.1 code 92.31 Artistic and literary creation and interpretation and code 92.4 News agency activities. Code 90.03 is less incompatible with copyright analysis needs compared to NACE Rev 1.1 code 92.31 Artistic and literary creation and interpretation (NACE Rev. 2 split this into three codes – 90.01 Performing arts, 90.02 Support activities to performing arts, and 90.03 Artistic creation). Thus, the new classification partly resolved allocation issues, as both 90.01 and 90.02 are allocated to I.2 music, theater and opera. To allocate 90.03 we relied on expert assessment from the Statistical Office and allocated 60% to I.1 and 40% to I.7. Again, we apply the same attribution factors for employment and GVA.

Table 10: Attribution of NACE Rev. 2 Code 90.03 Artistic creation

NACE Rev. 1.1	Activity Description	NACE Rev. 2	Activity Description	Allocation (Group)	Allocation (Group)
92.31	Artistic and literary creation and interpretation	90.01	Performing arts	100% (I.2)	
		90.02	Support activities to performing arts	100% (I.2)	
		90.03	Artistic creation	60% (I.1)	40% (I.7)

3.3.7 Attribution of Code NACE Rev. 2 91.02 – Museum activities

The data contained in NACE Rev. 2 code 91.02 mostly apply to museums. At the same time, this code classifies into a single group museums and galleries, which under WIPO's classification fall under visual and graphic arts. We should note that unlike NACE Rev. 1.1 code 92.52, NACE Rev. 2 code 91.02 does not contain activities connected with maintaining national heritage sites. The expert assessment of the activities under this code shows that it contains information mainly about state-run museums, and only a small number of private (or non-state) galleries. According to the expert assessments, revenue of these cultural institutions does not exceed 10% of the total income of cultural institutions.

3.3.8 Attribution of other NACE Rev. 2 Codes

Based on expert opinions and inputs from the Statistical Office, we decided to share some other activities, e.g. 46.52 wholesale of electronic and telecommunications equipment and parts, and 47.62 retail sale of newspapers and stationery in specialized stores.

Finally, we need to state that for some codes, the allocation was rather cumbersome, and due to the lack of data we decided to treat these codes as single and not shared. For example, code 47.78 Other retail sale of new goods in specialized stores includes retail sale of photographic, optical and precision equipment; activities of commercial art galleries; activities of opticians; retail trade services of commercial art galleries; retail sale of souvenirs; retail sale of stamps and coins craftwork and religious articles; retail sale of household fuel oil, bottled gas, coal and fuel wood; retail sale of weapons and ammunition; and retail sale of non-food products n.e.c.

Similarly, code 47.19 includes the retail sale of a large variety of goods of which food products, beverages or tobacco are not predominant, and activities of department stores carrying a general line of merchandise, including wearing apparel, furniture, appliances, hardware, cosmetics, jewelry, toys, sports goods, etc. As NACE Rev. 2 code 47.19 is identical to NACE Rev. 1.1. code 52.12 other retail sale in non-specialized stores, we use the same approach and do not attribute code 47.19 to more groups, but as suggested in the Bulgarian and Lithuanian studies, we attribute this code to IV.1 general wholesale and retailing only. Allocation of code 47.19 to several groups within partial copyright industries would be too cumbersome and unreliable.

Table 11 presents the Serbian estimates of shared economic activities applied to the ten shared economic activities.

Table 11: Summary of shared activities and GVA attribution factors

NACE Rev. 2 Code Description		Group Attribution Factors (%)				
18.20	Reproduction of video recording	I.2 (46.0%)	I.3 (2.0%)	I.6 (52.0%)		
46.43	Wholesale of electrical household appliances	I.2 (0.8%)	I.3 (0.8%)	II.1 (33.0%)	II.4 (2.0%)	IV.1 (63.4%)
46.52	Wholesale of electronic and telecommunications equipment and parts	II.2 (95%)	IV.1 (5%)			
47.43	Retail sale of audio and video equipment in specialized stores	I.2 (15%)	I.3 (15%)	II.1 (70%)		
47.62	Retail sale of newspapers and stationery in specialized stores	I.1 (90%)	II.7 (10%)			
47.79	Retail sale of second-hand goods in stores	I.1 (10%)	IV.1 (90%)			
59.11	Motion picture, video and television program production activities	I.3 (45.5%)	I.4 (54.5%)			
59.12	Motion picture, video and television program post-production activities	I.3 (45.5%)	I.4 (54.5%)			
90.03	Artistic creation	I.1 (60%)	I.7 (40%)			
91.02	Museums activities	I.7 (10%)	III.10 (90%)			

3.4 Copyright Factors

To measure the economic contribution of the copyright-based industries, the WIPO methodology introduces the **copyright factors**, defined as “the weighting of the portion of a specific industry that can be attributed to copyright or the level of dependence on copyright has been referred to in some of the surveys as the copyright factor. It has to be done in relation to all industries that are not core copyright-based industries

where the contribution will be counted as 100%”.⁵⁶ The values of the main economic indicators – value added, numbers of employees, and foreign trade – are multiplied by this percentage. Guidelines for establishing copyright factors may be sought from studies conducted in other countries that have undertaken similar studies based on the *WIPO Guide*.

The copyright factors for economic activities used in this study follow the methodological recommendations described in the *WIPO Guide* in general and the specific findings of the Lithuanian, Bulgarian and in some cases Slovenian and Croatian copyright studies commissioned by WIPO. The choice of these studies was based on the geographical proximity and/or economic resemblance to the Serbian economy. We should note that due to limited funding, this study could not conduct specifically targeted surveys in order to establish copyright factors.

We use the following copyright factor approach for specific groups:

- **The copyright factors for core and interdependent copyright groups were taken as equal to 1.** For the interdependent group, we follow the approach adopted in other countries and use a copyright factor of 1, as these industries 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 that they create is directly related to those industries. More specifically, one approach was taken in the Hungarian study. This study took all interdependent industries as 100% dependent on copyright based on expert assessments. The other approach was taken in the Singaporean study. This study used copyright factors that varied between 20 and 35 percent. One criticism of the Hungarian study is that including interdependent copyright industries up to 100% leads to less valid results in terms of content, because some industries in this category clearly have a wider scope than focusing on solely copyright-based activities. The study conducted in the Netherlands used the same copyright factors as the Singaporean study.
- **The copyright factors for the partial copyright group were smaller than 1, as it should be according to the definition of the partial copyright group.** In some cases we follow the Lithuanian, Bulgarian or Slovenian shares, while, where possible, we provide our calculations based on an estimate. However, due to country specifics, we decided to provide estimates based on expert assessment for interior design and architecture because the copyright factors for those industries in other studies were not considered to be relevant for Serbia.
- **The copyright factors for the non-dedicated support industries are estimated for each year separately.** Following the recommendation in the *WIPO Guide*, the value added of the first three groups was divided by the gross value added minus the value added of the non-dedicated support industry. We use the following equation to compute the copyright factor for the non-dedicated support industries:⁵⁷

NDSI Copyright Factor = Value Added for CCI, ICI & PCINon-distribution GVA (1)

The non-distribution GVA in Equation (1) is given by GVA minus NDSI value-added (general transportation, general wholesale and retail and telephony and internet) plus value-added of distribution industries in the core, interdependent and partial sub-sectors (e.g. wholesale and retail of press and literature – book stores, newsstands, etc.) The obtained NDSI copyright factor was applied for employment and foreign trade of non-dedicated support industries, as well as for GDP-related estimates.

⁵⁶ WIPO Guide, p.57.

⁵⁷ See “The Economic Contribution of Copyright-Based Industries in Singapore”, which was one of the first published reports to use the *WIPO Guide* (2003). The formula was adopted at the Experts Meeting in Singapore in October 2008.

Table 12 presents a comparison of selected factors for the partial copyright group adopted in different country studies. It is easy to see that differences between former transition countries are relatively small; thus, despite negative aspects, using these estimates for purposes of comparison seems well justified.

Table 12: Comparison of factors for partial copyright group adopted in different country studies

Industry	Singapore	Latvia	Hungary	Bulgaria	Slovenia	China	Serbia
Apparel, textiles & footwear	0.4%	0.4%	0.5%	0.6%	0.6%	0.40%	0.6%
Jewelry & coins	25.2%	8.69%	25.0%	20.0%	20.0%	8.0%	20.0%
Other crafts	42.0%		40.0%	40.0%	40.0%	40.0%	40.0%
Furniture	5.0%	41.00%	5.0%	5.0%	5.0%	5.0%	3.2%
Household goods, china & glass	0.6%		0.5%	0.5%	0.5%	0.3%	0.5%
Wall coverings & carpets	1.7%	1.65%	2.0%	0.4%	0.4%	2.0%	0.4%
Toys & games	42.0%	45.50%	50.0%	40.0%	40.0%	40.0%	40.0%
Architecture	8.3%		10.0%	10.0%	25%	6.0%	25%
Interior design	8.3%				10.0%	5.0%	10.0%
Museums			50.0%	50.0%	50%	0.5%	50.0%
Miscellaneous manufacturing		45.50%					
Wholesale & retail of partial copyright industries			5.0%				

Source: Various country studies

4. ECONOMIC CONTRIBUTION OF THE COPYRIGHT INDUSTRIES

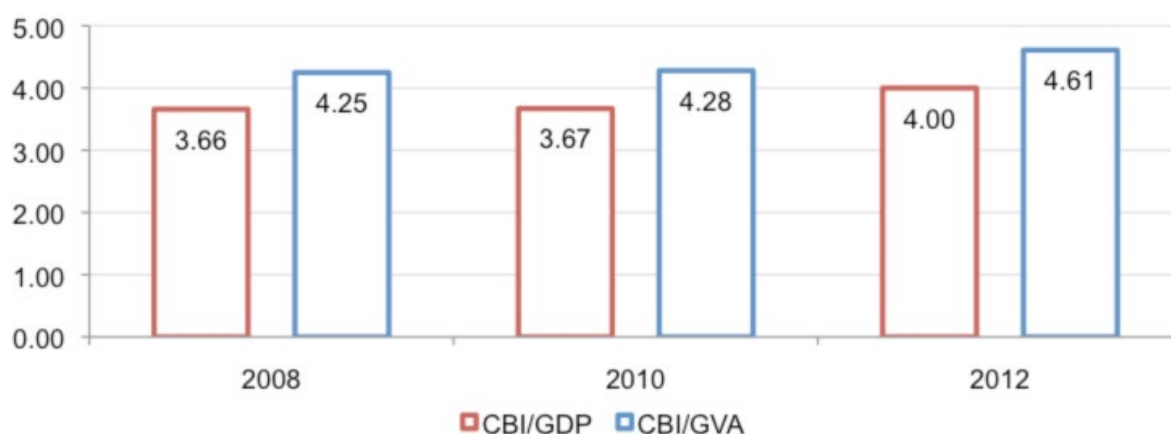
4.1 Value Added of the Copyright Industries

This section presents the value added, employment and foreign trade contributions of the copyright industry to the Serbian economy for the years 2008, 2010 and 2012. By offering a time series for three years, this study provides a clear picture of how the Serbian copyright economy was evolving prior to and during the period of severe economic recession.⁵⁸

4.1.1 Overview of copyright industries' development

A detailed statistical analysis of the value added of copyright-related economic activities shows that the Serbian copyright industries comprised 4.61% of the GVA in 2012, while compared to the GDP it made up 4.00%. The difference between these two measures is explained by the fact that gross value added does not include net taxes on products and value added tax (VAT). Both net taxes and VAT largely cannot be attributed to economic activities; thus, a share of the copyright industry is smaller in terms of GDP than in terms of GVA. This research is based on the GVA measure that is used throughout the study.⁵⁹ Nevertheless, due to country comparability reasons, the aggregates are provided in GDP percentages as well. Figure 2 shows that both measures increase in parallel, and differences are of the same scale each year.

Figure 2: Copyright industry contribution to GVA and GDP, %



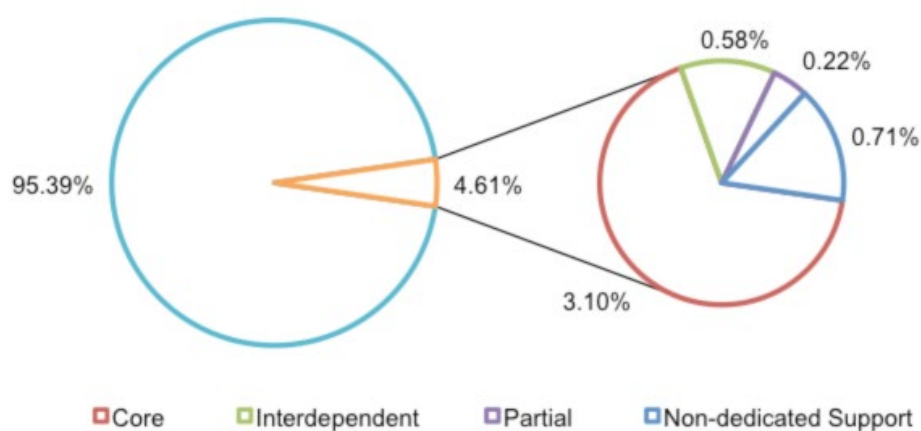
Source: Authors' calculation

On the basis of the detailed analysis of the value added of economic activities, it was established that in 2012 the Serbian copyright industry comprised 4.61% of the gross value added. The most significant, more than half, copyright contribution to the economy is made by core copyright industries, 3.10 percent. The interdependent copyright industry, which is the most closely related to the core copyright, made up 0.58 per cent, while the partial copyright industry created 0.22% of the GVA. Finally, the part of the economy which serves the copyright industry and which is in accordance with the WIPO methodology classified as the non-dedicated support industry comprised 0.71 per cent of the value added. The detailed structure of the economic contribution to the Serbian economy is presented in the figure below.

⁵⁸ Data cover both the peak of the previous business cycle and the recent recession. Between 2000 and 2008, Serbia's economy grew at an average rate of about 5%, driven increasingly by domestic consumption, fueled by significant capital inflows, and a credit boom that supported an increase in domestic demand. However, the underlying growth proved vulnerable to shocks, being associated with a high share of non-tradables, low domestic savings and a fragile external position. After a modest recovery in 2010 and 2011, the Serbian economy slipped back into recession in 2012.

⁵⁹ In fact, as stated in the Lithuanian Study, the emerging consensus among researchers in economic copyright matters, GVA is a far better measure. See The Economic Contribution of Copyright-Based Industries in Lithuania, Report, August 2012, p.27.

Figure 3: Economic contribution of copyright-based industries in Serbia in 2012, %



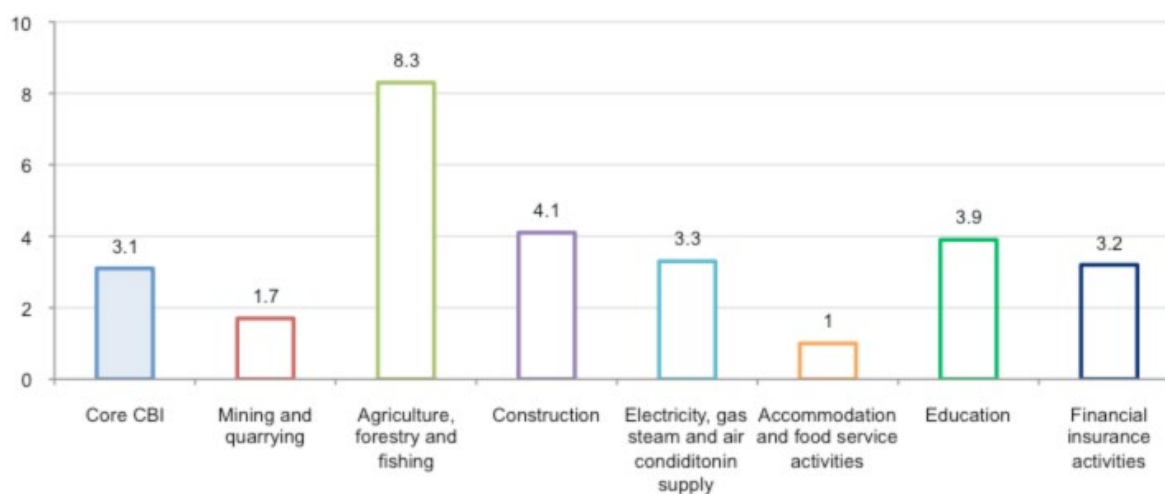
Source: Authors' calculation

Table 13: Economic contribution of copyright-based industries in Serbia in 2012, %

	RSD 000	Contribution to GVA
Core	91,097,234	3.10%
Interdependent	16,994,716	0.58%
Partial	6,493,963	0.22%
Non-dedicated support	20,780,755	0.71%
TOTAL CBIs	135,366,668	4.61%

The core copyright industries in Serbia contribute more to the GVA than mining and quarrying or accommodation and food service activities, and are close to financial and insurance activities or electricity and gas supply.

Figure 4: Contribution of the core CBI to the GDP in comparison with other selected industries in 2012



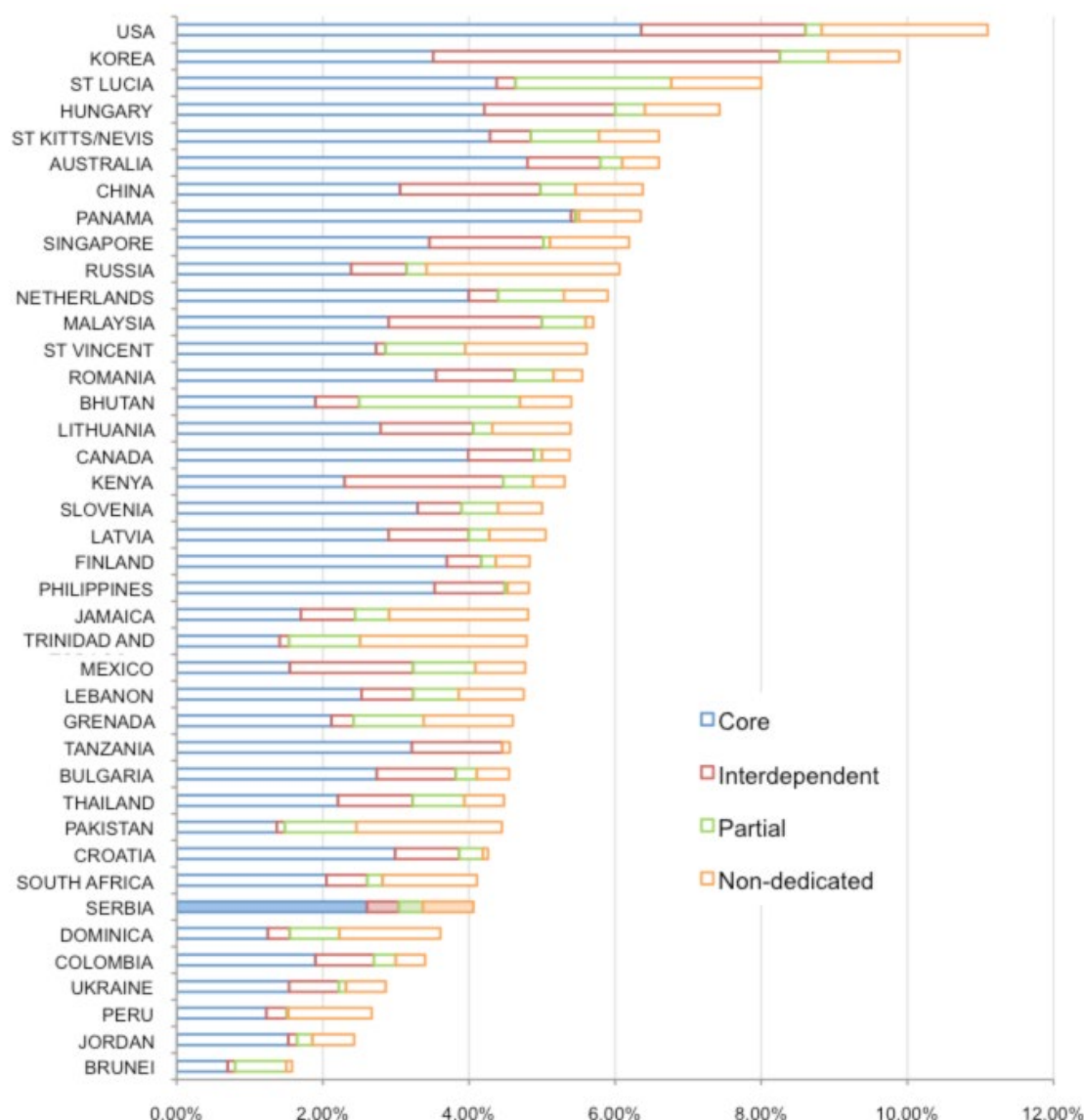
Source: Authors' calculation and SORS

4.1.2 *International Comparison*

The findings allow for comparison of the Serbian CBIs' contribution to gross value added and GDP share of the copyright industry with the economic size of the copyright industry in other countries for which a similar statistical research has been conducted, providing a more global picture of Serbia's economy and copyright contributions. We should note that there are differences in statistical systems and statistical standards among various countries, as well as variations in the level of detail of the reports and the methods used. In some cases, data sources, practices of dealing with missing or imputed data or using copyright factors are not always fully transparent. While international comparisons are less sensitive to these issues at an aggregate level, the results should be interpreted with caution.⁶⁰ Finally, data for different studies were collected for a different time period which is an additional obstacle to international comparison.

The contribution to GDP varies significantly across countries (from over 10% in the US, to under 2% for Brunei) with a usually higher average share of GDP attributed to copyright industries for countries that have experienced rapid economic growth. On average, the copyright-based industries comprise 5.22% of the GDP of a country. In Serbia the copyright-based industries comprise approximately 4.00% of GDP; therefore, Serbia is somewhat below average and takes only 34th position in the group of 40 countries. Nevertheless, in terms of the contribution of the core copyright industries, Serbia, with a 2.57% contribution, ranks 23rd. This is close to the average for other countries, as more than half of the total contribution of the copyright industries to GDP comes from the core copyright industries (2.85% out of 5.22%). The Serbian copyright industry is also smaller than the corresponding part of the economy in neighboring Croatia, Romania and Bulgaria. However, international comparison reveals that Serbia has a huge potential to increase the share of CBIs, and move to a more advanced stage of the copyright economy.

⁶⁰ Certain differences are due to variations in the availability of statistics or industry categorizations. However, the WIPO methodology offers a means to standardize national studies through appropriate adjustments, thus improving cross-national comparability.

Figure 5: Contribution of copyright industries to GDP, %

Source: WIPO and authors' calculation

4.2 Value Added Structure in each Copyright Industry Type

4.2.1 Core copyright industries

Core copyright industries are industries that are fully engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and any other protected subject matter. The core copyright industry is divided into nine main groups of industries. The examination of the core copyright industry in 2012, shown in Figure 6, reveals that the leading industry was press and literature (1.20%), with software and databases being fairly closely in second place (0.90%). The third industry by importance was advertising services (0.33%), while music, theater and opera ended in fourth (0.28%), and radio and TV in fifth place (0.25%). Each of the other four subcategories created 0.1% or less of gross value added.

Figure 6: Core copyright industries' contribution to gross value added in 2012, %

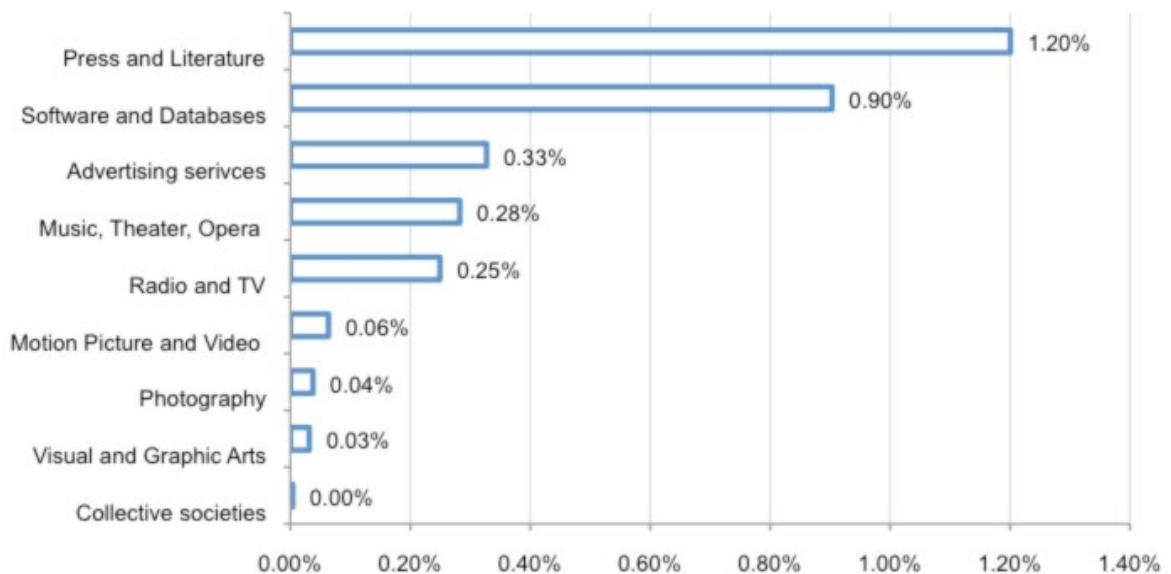


Table 14: Core copyright industries' contribution to gross value added in 2012, %

	Group	GVA in 000 RSD	GVA Contribution
I 1	Press and literature	35,283,842	1.20%
I 2	Music, theater, opera	8,303,133	0.28%
I 3	Motion picture and video	1,867,446	0.06%
I 4	Radio and TV	7,329,585	0.25%
I 5	Photography	1,107,885	0.04%
I 6	Software and databases	26,545,690	0.90%
I 7	Visual and graphic arts	925,844	0.03%
I 8	Advertising services	9,615,436	0.33%
I 9	Collective societies	118,374	0.00%
	Core copyright industries	91,097,234	3.10%

We should note that we have corrected the values obtained for GVA contribution of radio and TV, due to the fact that some TV stations are registered as cable telecommunications companies. However, even this corrected value is underestimated, as there are probably other TV stations that are not registered correctly.⁶¹

4.2.2 Interdependent copyright industries

Interdependent copyright industries are industries that are engaged in the production, manufacturing and sales of equipment, for which the only or primary function is to facilitate the creation, production or use of works and any other protected subject matter. The interdependent copyright industry is subdivided into seven activities. The interdependent copyright industries created 0.58% of the country's gross value added in 2012. There are three interdependent copyright industries, relatively large in size. Computers and equipment, TV sets, radios, etc., and paper represent the most significant interdependent copyright industries with Computers and equipment contributing the most to GVA. The economic contribution of photographic and

⁶¹ For Prva Televizija we have calculated the value of GVA in 2012 equal to 1.192 billion dinars. For Pink International Group, based on unconsolidated financial statements, the GVA value equals 2.973 billion dinars in 2012. Both companies are registered as cable telecommunication companies. Similarly, we include these companies in our calculation of core employment and exclude them in our calculation of non-dedicated support industries.

cinematographic instruments was somewhat economically significant, while photocopiers, blank recording material, and musical instruments, were completely insignificant.

Figure 7: Interdependent copyright industries' contribution to GVA in 2012, %

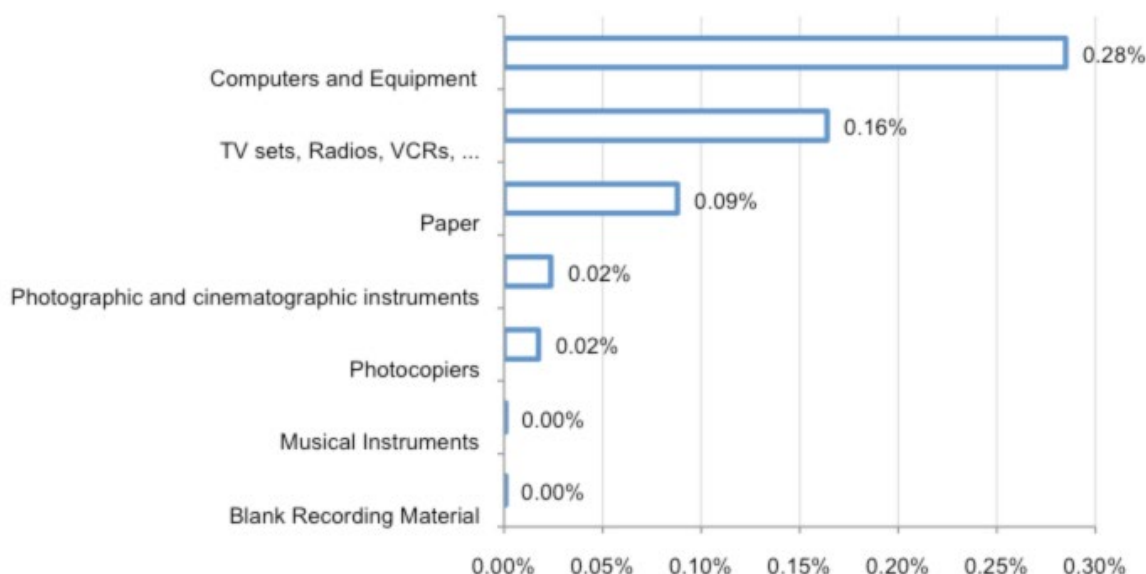


Table 15: Interdependent copyright industries' contribution to GVA in 2012, %

	Group	GVA in 000 RSD	GVA Contribution
II 1	TV sets, radios, VCRs, ...	4,816,579	0.16%
II 2	Computers and equipment	8,373,687	0.28%
II 3	Photocopiers	514,113	0.02%
II 4	Musical instruments	4,211	0.00%
II 5	Photographic and cinematographic instruments	697,834	0.02%
II 6	Blank recording material	3,149	0.00%
II 7	Paper	2,585,143	0.09%
	Interdependent copyright industries	16,994,716	0.58%

4.2.3 Partial copyright industries

Partial copyright industries are industries where a portion of the activities is related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales. They are divided into ten separate activities. Partial copyright industries created 0.22% of the country's gross value added in 2012. Serbian partial copyright industries were dominated by architecture, engineering and surveying, with more than half of the group's share. The other three groups – furniture, museums and other crafts – created 0.024%, 0.023%, and 0.022% of GVA respectively. All other activities had negligible shares of 0.01% or less of GVA.

Figure 8: Partial copyright industry's contribution to gross value added in 2012, %

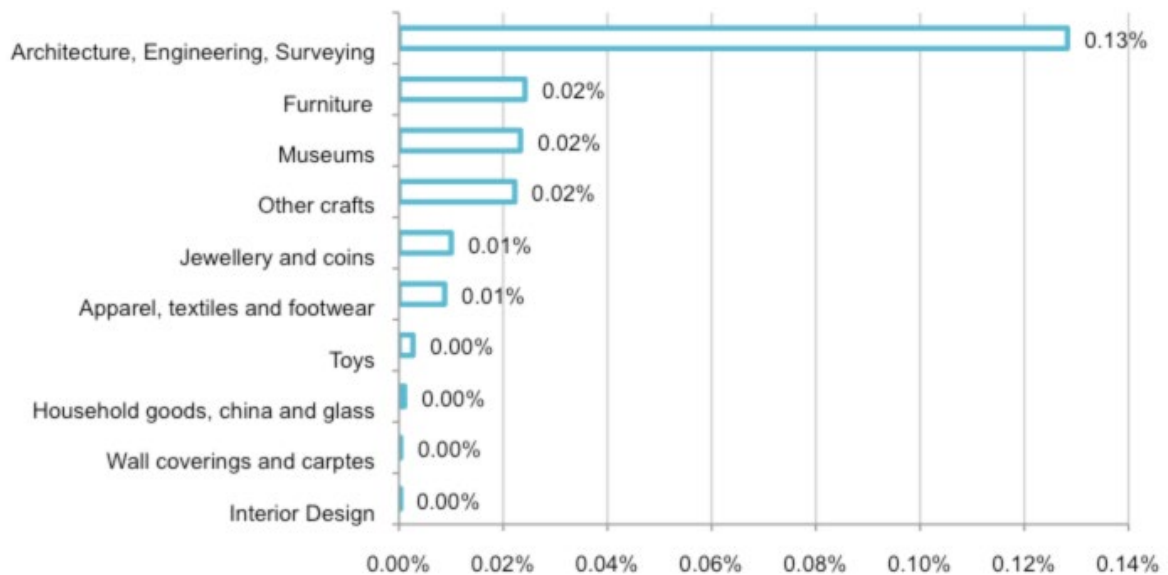


Table 16: Partial copyright industries' contribution to gross value added in 2012, %

	Group	GVA in 000 RSD	GVA Contribution
lii 1	Apparel, textiles and footwear	257,867	0.009%
lii 2	Jewelry and coins	294,869	0.010%
lii 3	Other crafts	653,344	0.022%
lii 4	Furniture	710,754	0.024%
lii 5	Household goods, china and glass	31,136	0.001%
lii 6	Wall coverings and carpets	9,698	0.000%
lii 7	Toys	78,848	0.003%
lii 8	Architecture, engineering, surveying	3,769,685	0.128%
lii 9	Interior design	2,656	0.000%
lii 10	Museums	685,107	0.023%
	Partial copyright industries	6,493,963	0.221%

4.2.4 Non-dedicated support copyright industries

Non-dedicated support industries are industries where a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matters, and the activities of which do not fall into the category of core copyright industries. Although it is an economically large group, it is subdivided into just three subgroups. Non-dedicated support industries created 0.71 % of the country's gross value added in 2012. The general wholesale and retailing contribution to the national gross value added was 0.33 %, while general transportation contributed 0.22 percent. Telephony and internet produced a much smaller contribution of 0.15 %.

Figure 9: Non-dedicated copyright industries' contribution to gross value added in 2012, %

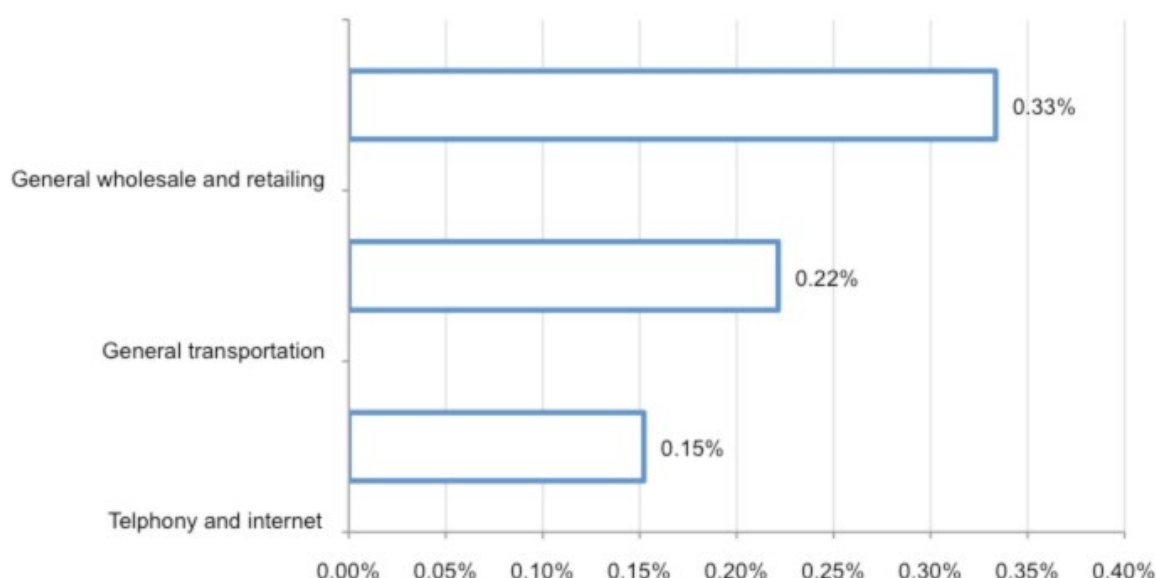


Table 17: Non-dedicated support industries' contribution to gross value added in 2012, %

	Group	GVA in 000 RSD	GVA Contribution
IV. 1	General wholesale and retailing	9,801,447	0.33%
IV. 2	General transportation	6,507,990	0.22%
IV. 3	Telephony and internet	4,471,318	0.15%
	Non-dedicated support industries	20,780,755	0.71%

4.3 Employment in Copyright Industries

The copyright industries generated more value added than employment for the Serbian economy. In 2012, employment in the Serbian copyright industries comprised 4.06% of total employment.⁶² Moreover, almost two thirds of it, 2.61%, was generated by the core copyright industries. The interdependent copyright industries created 0.44%, while the partial copyright industry contributed 0.33% to overall employment. Finally, the non-dedicated support industry comprised 0.69% of the overall employment. The employment structure with regard to the Serbian copyright industries is shown in Figure 10.

⁶² For the purpose of national accounting, both the registered formal employment data and labor force survey are being used. More specifically, starting from the formal employment data, experts in the SORS conducted necessary imputations, mostly related to unincorporated enterprises. The fact that SORS possess a significant number of financial reports of unincorporated enterprises (about 20,000 or approximately 10%) makes the imputations related to unincorporated enterprises and unobserved economy easier than in some of the EU member states. Financial reports, together with the data on taxable income, salaries and number of employees (available from the Serbian Tax Administration) have been used by the SORS as the grounds for the estimates on the number of unincorporated enterprises, number of employees and GVA by activity. More specifically, for imputations the SORS apply the model based on the assumption that business conditions of sole-proprietorships are very similar to the conditions of micro incorporated enterprises (limited liability companies), with certain corrections. In estimating the number of employees in the unincorporated enterprises, the SORS use LFS (Labor Force Survey) data as supplementary data. See SORS, Unincorporated enterprises (sole-proprietorships and partnerships) in the Republic of Serbia, 2010, SORS Working Paper N°78, August 2011 available at <http://pod2.stat.gov.rs/ObjavljenPublikacije/G2011/pdf/G201110078.pdf>.

For total employment we use data from the labor force survey. LFS applies the international recommendations and definitions and therefore the data of this survey present the main source of labor force statistics that are internationally comparable. Share in total registered employment is significantly higher, as the total number of employees includes only employees who have signed a work contract with an employer (a formal legal employment contract). Data on registered employment are collected by statistical surveys (for employees at legal entities) and from administrative sources (for entrepreneurs and their employees). LFS results are available at http://webzrzs.stat.gov.rs/WebSite/repository/documents/00/00/96/02/SB_564_ARS_2012+sajt.pdf.

Figure 10: Employment by copyright industries in Serbia in 2012, %

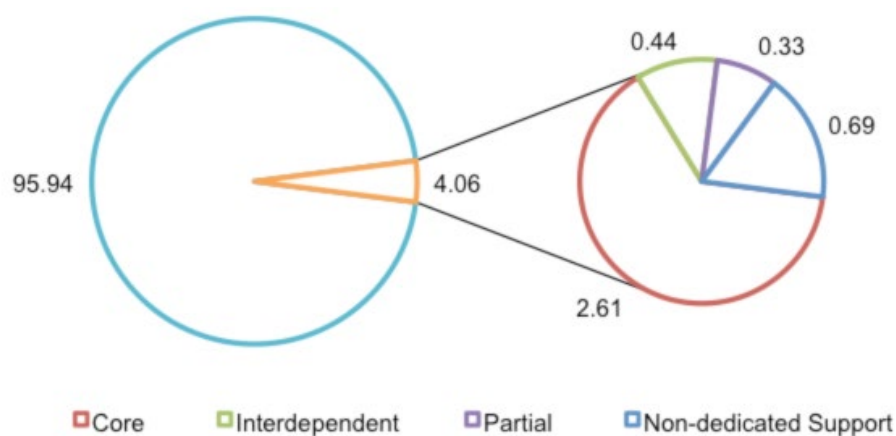


Table 18: Employment by copyright industries in Serbia in 2012, %

	Employees	Contribution to Employment
Core	58,081	2.61%
Interdependent	9,758	0.44%
Partial	7,317	0.33%
Non-dedicated support industries	15,347	0.69%
TOTAL CBIs	90,503	4.07%

A steady decrease in the number of people employed in the copyright-based industries was registered for the period 2008-2012 (Figure 11). More precisely, for the observed period CBIs in Serbia lost 9,752 jobs. Yet, the contribution of CBIs to employment increased from 3.53% in 2008 to 4.06% in 2012, with the highest relative increase recorded by the core industries (increase from 2.17% to 2.61%). Thus, CBIs were somewhat less affected than the overall economy. This is consistent with the fact that in most countries total CBIs and core CBIs are dynamic sectors of the economy, so their share in the total employment shows an upward trend.

Figure 11: Employment in copyright-based industries

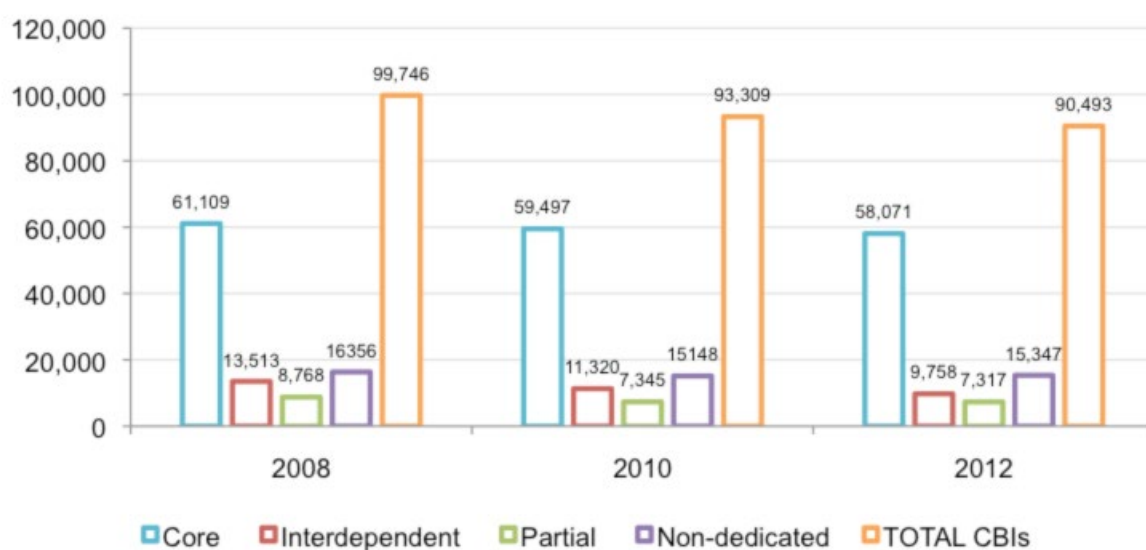
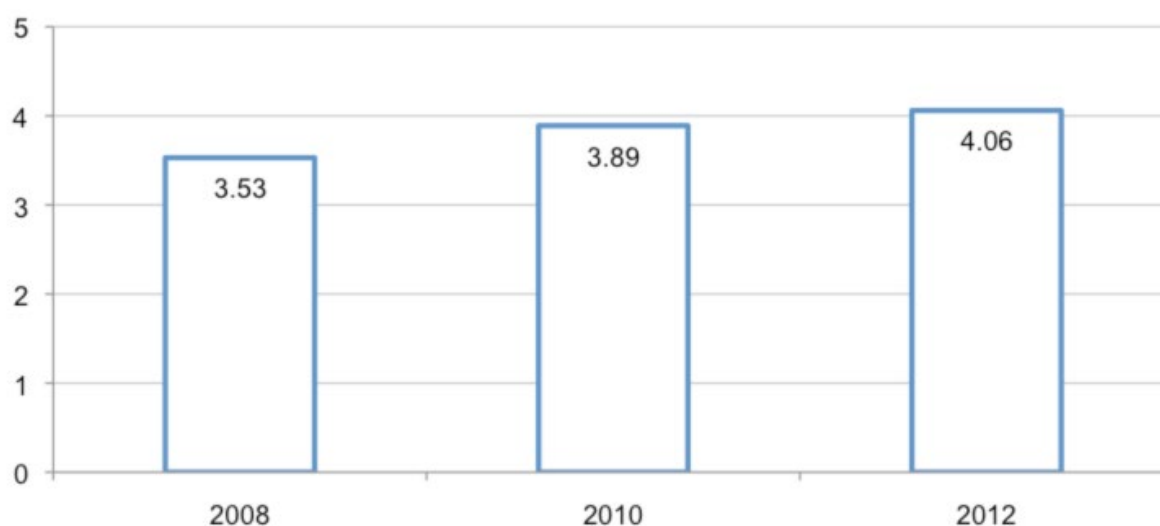


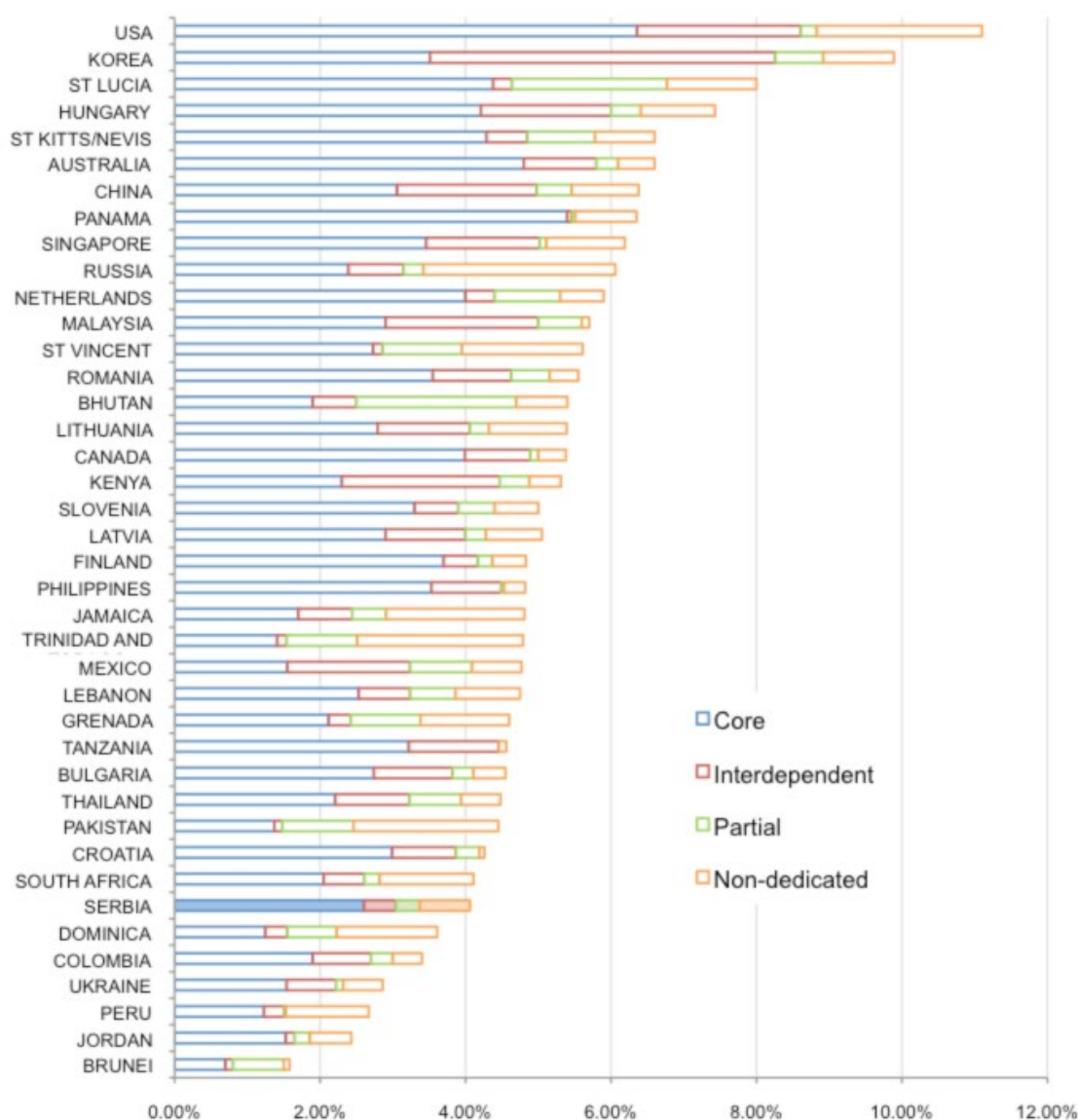
Table 19: Employment in copyright-based industries

	2008		2010		2012	
	Number of employees	Share in total emp	Number of employees	Share in total emp	Number of employees	Share in total emp
Core	61,109	2.17%	59,497	2.48%	58,071	2.61%
Interdependent	13,513	0.48%	11,320	0.47%	9,758	0.44%
Partial	8,768	0.31%	7,345	0.31%	7,317	0.33%
Non-dedicated support	16,356	0.58%	15,148	0.63%	15,347	0.69%
TOTAL CBIs	99,746	3.53%	93,309	3.89%	90,493	4.06%

Figure 12: CBIs' employment share in total employment 2008-2012, %

The international comparison shows that the Serbian copyright economy ranks low in terms of the employment measure and reveals that proportionally the CBIs contribute more to GDP than they do to employment (Figure 10). Serbian CBIs create somewhat lower employment than in Bulgaria or Croatia, and Serbia is also lagging behind them in terms of the value added contribution. However, with respect to employment contribution by the core copyright-based industries, Serbia is doing much better. With a value of 2.61%, it belongs to middle-ranking countries (Serbia ranks 20th out of 40 economies). The difference between total and core CBIs share in the total employment reveals a relatively weak spillover effect of core CBIs in Serbia. Structurally, the copyright-based industry sector employment in Serbia is similar to those of Hungary, Latvia and Slovenia.

Figure 13: Contribution of copyright industries to employment, %



Source: WIPO and authors' calculations

4.4 Employment in each Copyright Industry Type

4.4.1 Core copyright industries

Press and literature are far ahead of software and databases and other core copyright industries in terms of employment. Even though the press and literature industry employs twice as many people as the software and databases industry, due to much higher productivity in the software and databases industry, the difference is not that high in terms of GVA. Other industries like advertising services, radio and TV, and music, theater and opera are also significant contributors to employment in Serbia. Some core copyright industries differ significantly in terms of GVA per employee (productivity).

Figure 14: Core copyright industries' contribution to employment in 2012, %

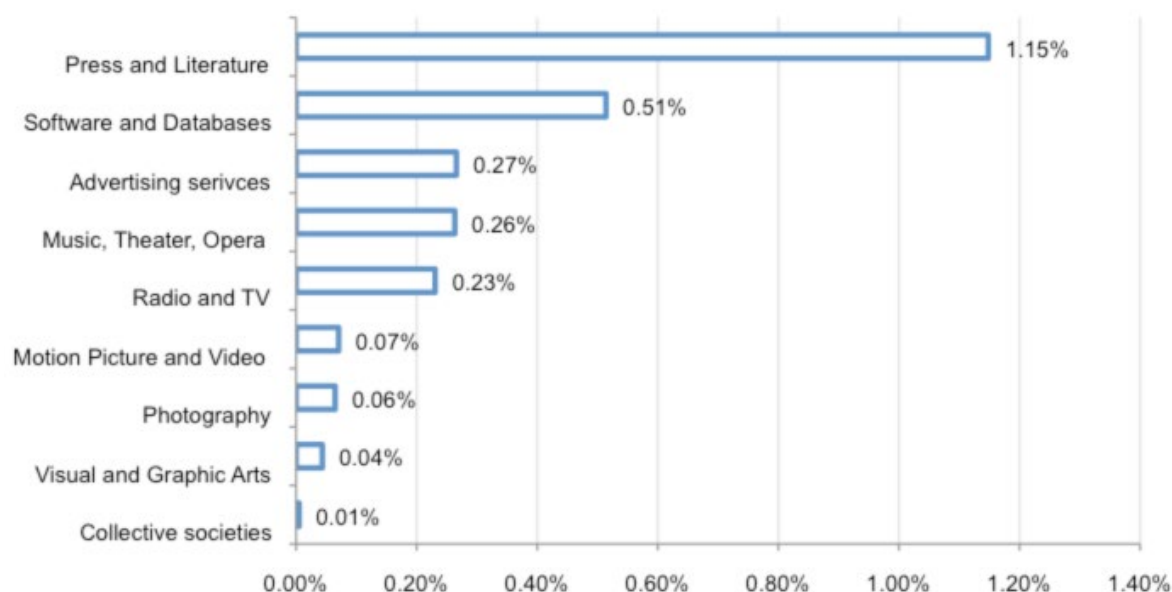


Table 20: Core copyright industries' contribution to employment in 2012, %

	Group	Employees	Contribution to Employment
I 1	Press and literature	25,584	1.15%
I 2	Music, theater, opera	5,868	0.26%
I 3	Motion picture and video	1,575	0.07%
I 4	Radio and TV	5,140	0.23%
I 5	Photography	1,443	0.06%
I 6	Software and databases	11,455	0.51%
I 7	Visual and graphic arts	969	0.04%
I 8	Advertising services	5,925	0.27%
I 9	Collective societies	113	0.01%
	Core copyright industries	57,223	2.61%

4.4.2 Interdependent copyright industries

The employment contribution of the interdependent copyright industries has a rather heterogeneous character. Key employers are computers and equipment, and TV sets and radios. Paper and photographic instruments make a minor contribution. Basically, except computers and equipment other employers in this group generate less employment than value added, in percentage terms.

Figure 15: Interdependent copyright industries' contribution to employment in 2012, %

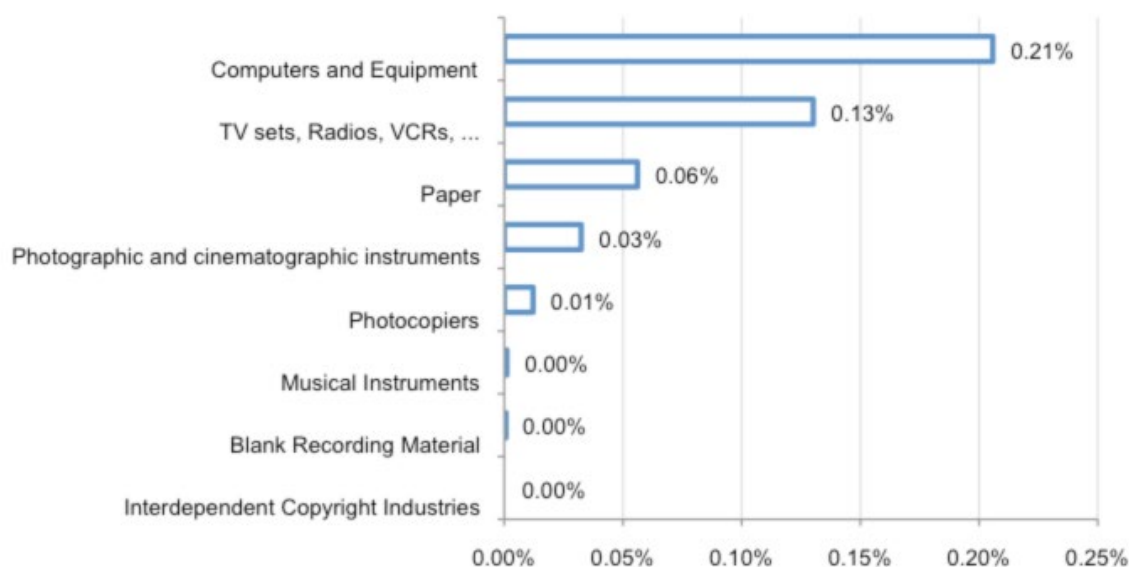
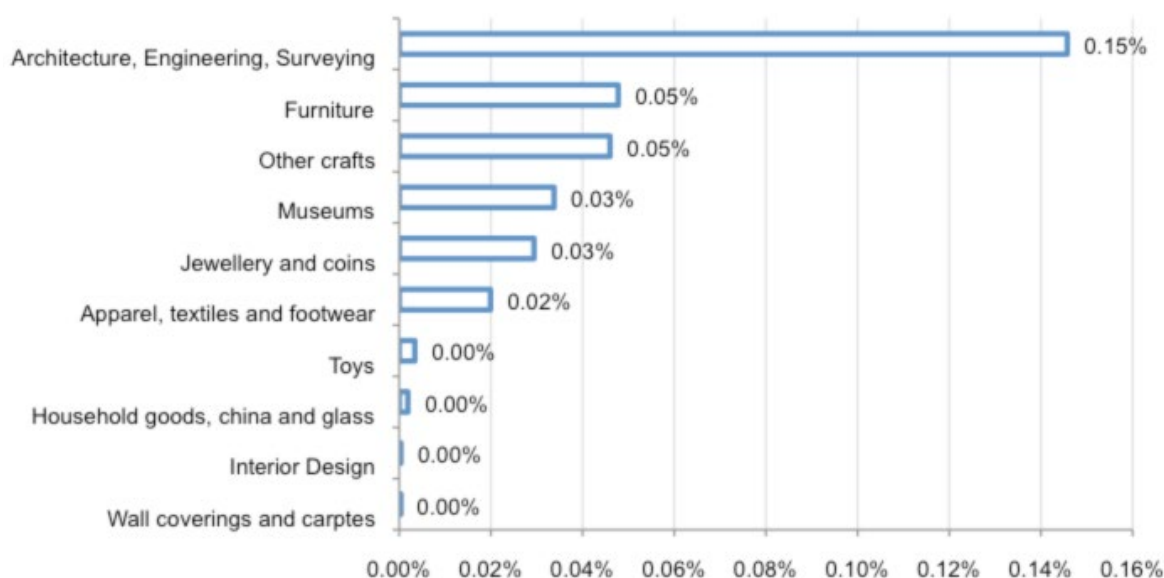


Table 21: Interdependent copyright industries' contribution to employment in 2012, %

	Group	Employees	Contribution to Employment
II 1	TV sets, Radios, VCRs, ...	2,900	0.13%
II 2	Computers and Equipment	4,585	0.21%
II 3	Photocopiers	270	0.01%
II 4	Musical Instruments	24	0.00%
II 5	Photographic and Cinematographic Instruments	722	0.03%
II 6	Blank Recording Material	6	0.00%
II 7	Paper	1,250	0.06%
	Interdependent Copyright Industries	11,634	0.44%

4.4.3 Partial copyright industries

The analysis of employment in the partial copyright industry reveals five key employers. By far the largest contributors to national employment are architecture, engineering and surveying, furniture and other crafts.

Figure 16: Partial copyright industries' contribution to employment in 2012, %**Table 22: Partial copyright industries' contribution to employment in 2012, %**

	Group	Employees	Contribution to employment
III 1	Apparel, textiles and footwear	444	0.02%
III 2	Jewelry and coins	655	0.03%
III 3	Other crafts	1,025	0.05%
III 4	Furniture	1,064	0.05%
III 5	Household goods, china and glass	42	0.00%
III 6	Wall coverings and carpets	3	0.00%
III 7	Toys	76	0.00%
III 8	Architecture, engineering, surveying	3,248	0.15%
III 9	Interior design	8	0.00%
III 10	Museums	753	0.03%
	Partial copyright industries	7,317	0.33%

4.4.4 Non-dedicated support industries

With respect to copyright, the job creation in non-dedicated support industries was concentrated in general wholesale and retailing and in general transportation.

Figure 17: Non-dedicated support industries' contribution to employment in 2012, %

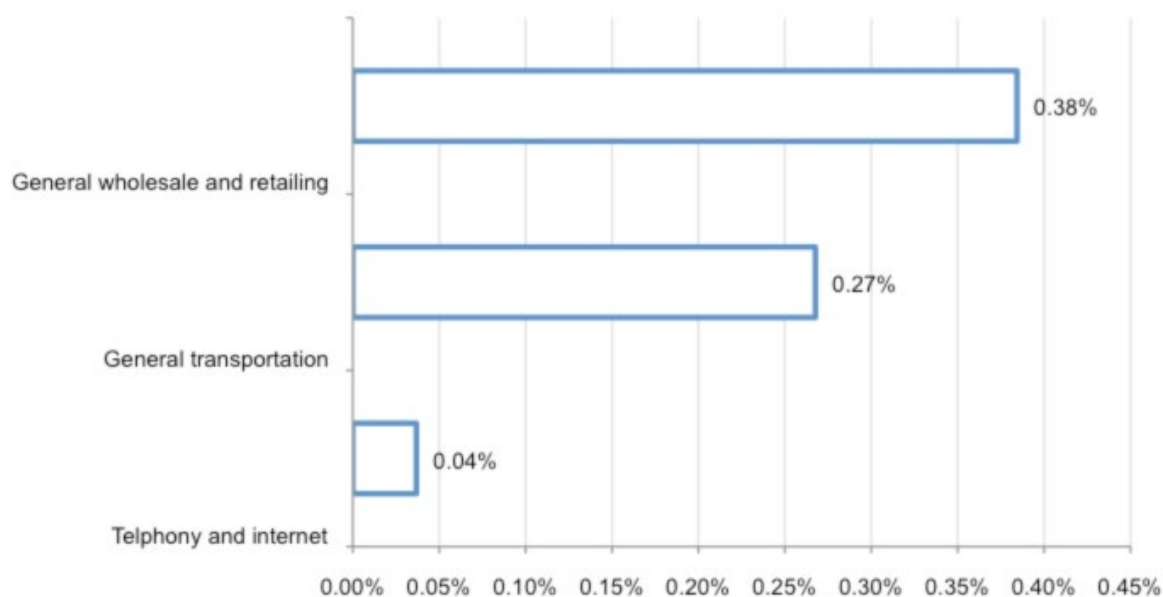


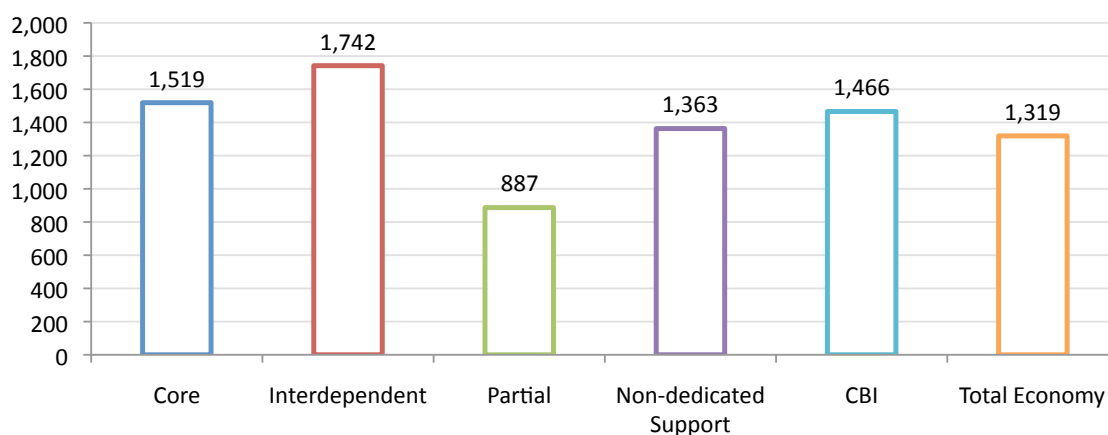
Table 23: Non-dedicated copyright industries' contribution to employment in 2012, %

	Group	Employees	Contribution to Employment
IV 1	General wholesale and retailing	8,564	0.38%
IV 2	General transportation	5,964	0.27%
IV 3	Telephony and internet	819	0.04%
	Non-dedicated support industries	15,347	0.69%

4.5 Productivity in Major Copyright Activities

In this section, we also provide the comparison of value added and employment shares of major copyright economic activities. Labor productivity calculated as GVA per employee offers some conclusions regarding the efficiency of CBIs. Figure 18 shows significant differences between copyright-based industries with respect to productivity.

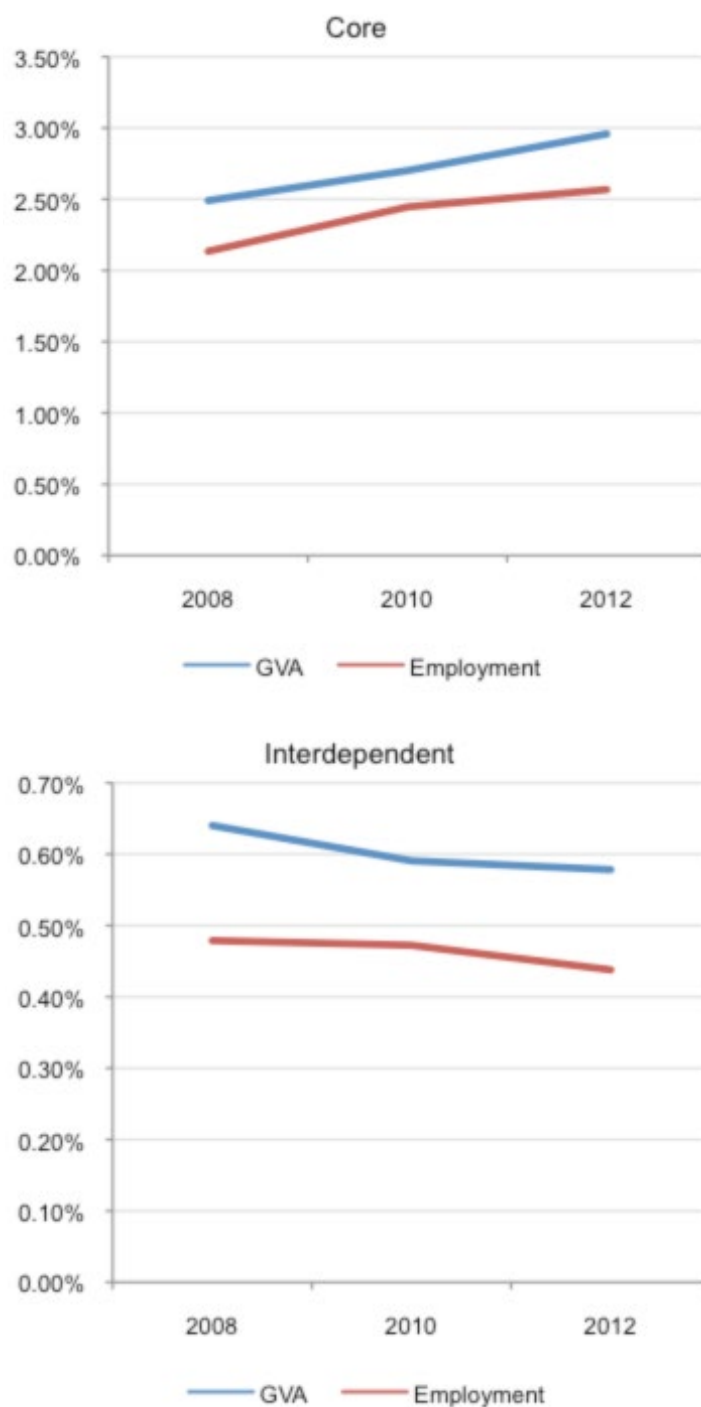
Figure 18: GVA per employee in 000 dinars (2012)

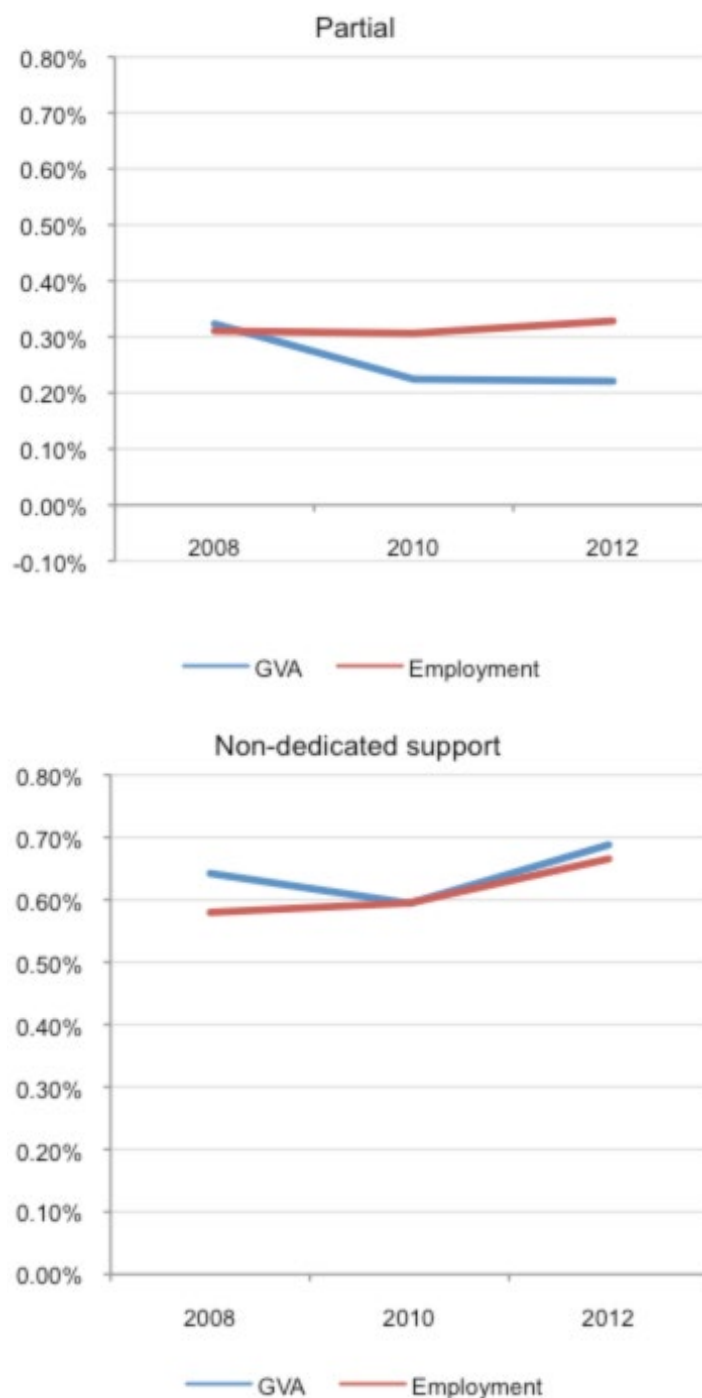


Several figures below provide an insight into how the growth or contraction of value added and employment is correlated. A positive difference between them shows the increase in the productivity of the particular copyright-related industries compared to the overall Serbian economy. If value added is higher than employment, then productivity in the copyright activity is higher than in the economy in general. If the gap between the two lines is increasing, then the productivity gap is growing and *vice versa*.

The CBI industries have completely different productivity patterns. The most important group, core copyright industries constantly create a larger value added share than the employment share. Moreover, its productivity shows no sign of decline as both red and blue lines have moved upwards. The interdependent copyright industries show a similar pattern but in the opposite direction, as both GVA and employment decreased in parallel over the years. The productivity of partial copyright industries shows significant deterioration in productivity beginning in 2008. Finally, non-dedicated support industries as an extremely heterogeneous group contributed on average the same as the Serbian overall economy.

Figure 19: Copyright industries' contribution to economy in %

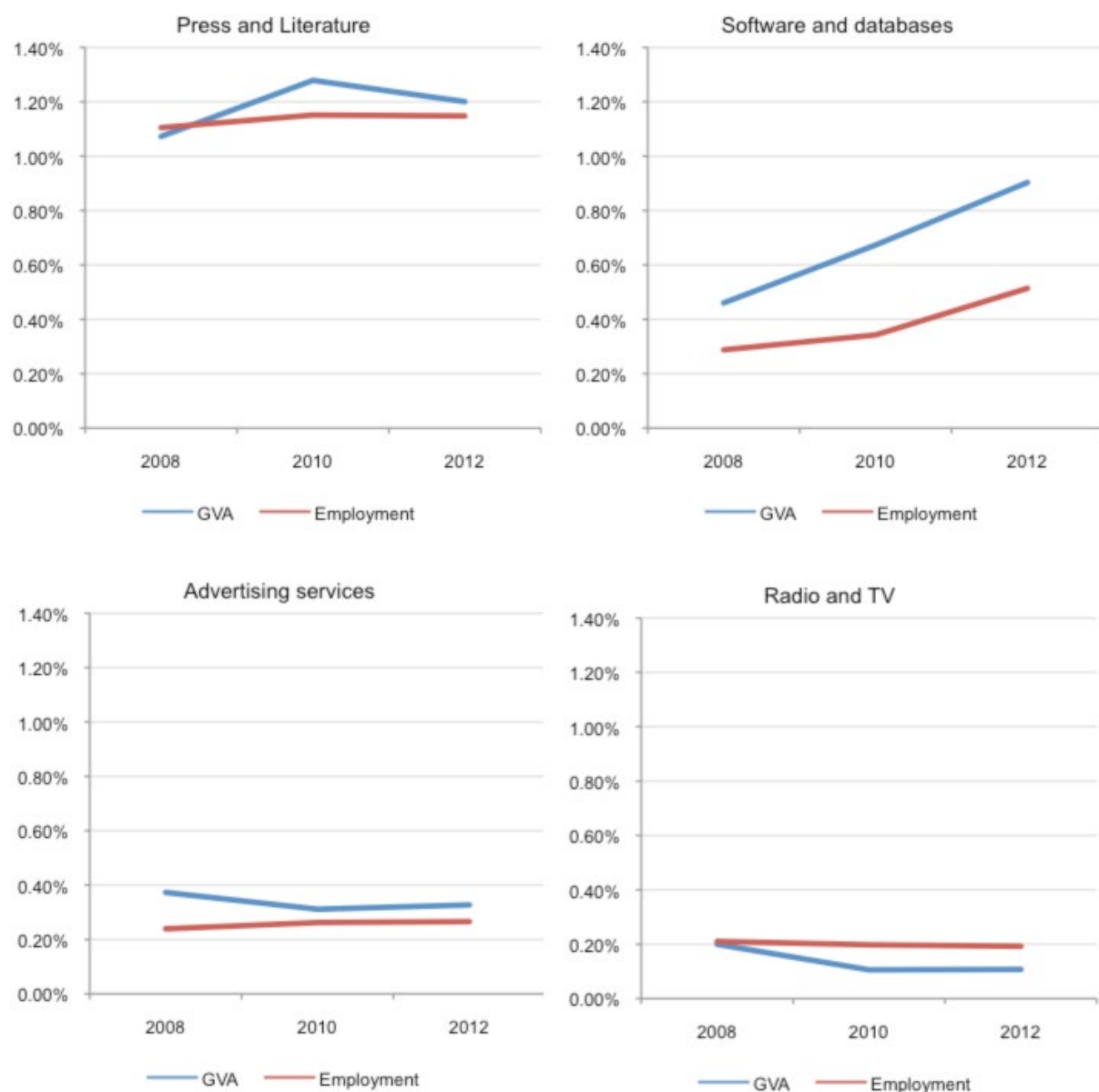




4.5.1 Core copyright industries

Press and literature, which is the largest activity among core copyright industries, has been somewhat more productive than the economy in general. From 2010 the GVA of press and literature has been above its employment contribution, but instead of growing, this gap has been slowly shrinking in the last reporting period. An increase in productivity of software and databases was very sharp over the reporting period, nearly twice as productive compared to the overall economy in 2012. Advertising services, which is the third group by size in the Serbian core copyright industry, also contributed more to GVA than to employment throughout the observation period. The data prove that since 2010 productivity in advertising services compared to the overall economy stagnated. While keeping its share of employment, radio and TV almost halved their GVA contribution, thus reaching productivity that is only half of the overall economy.

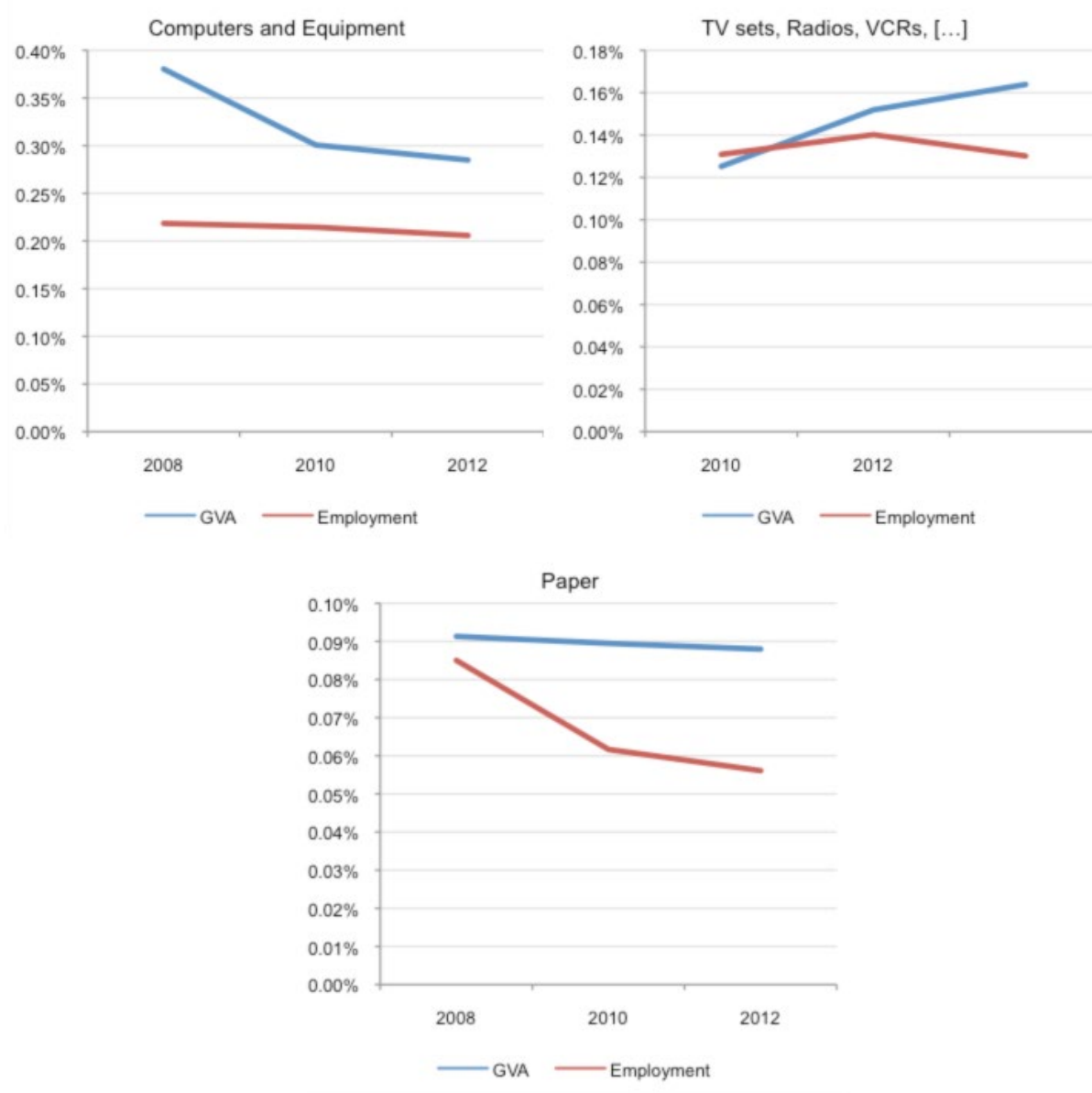
Figure 20: Selected core copyright industries contribution to economy in %



4.5.2 Interdependent copyright industries

Although the computers and equipment sub-category was the first in the interdependent group in 2008 by its size, it exhibited the steepest downward trend over the observation period. It is still more efficient than the Serbian economy in general, but shows signs of losing this comparative advantage. The opposite situation is seen with TV sets, radios, etc., which maintained their employment share, but increased their share in the GVA. Finally, paper increased productivity, but mainly due to a significant reduction in the number of employees.

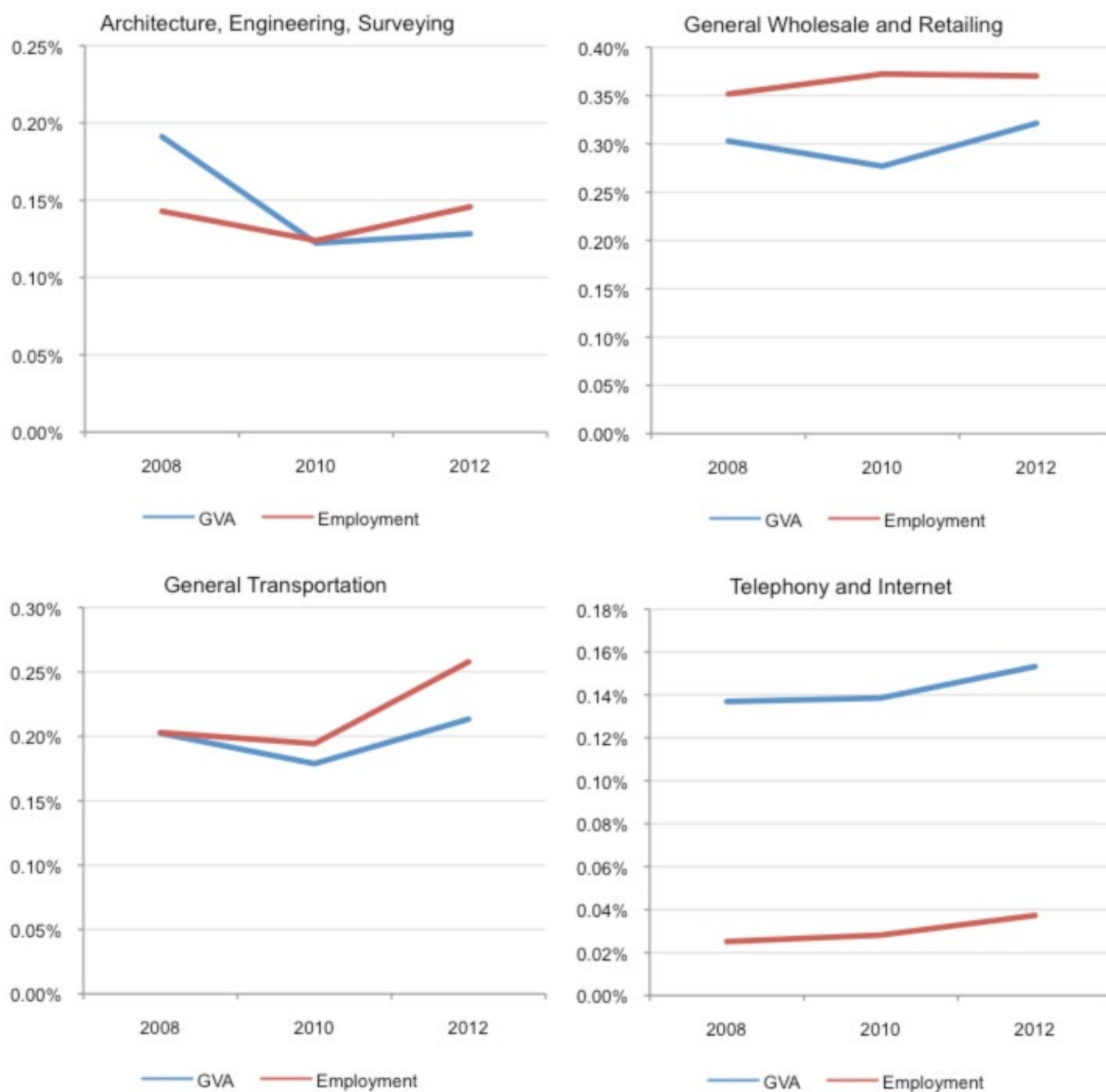
Figure 21: Selected interdependent copyright industries' contribution to economy in %



4.5.3 Partial and non-dedicated support copyright industries

Non-dedicated support copyright industries consist only of three subgroups. Their productivity developments over time are reflected in Figure 22. General wholesale and retailing has lost the efficiency advantage it previously had at the beginning of the observed period. Partial recovery occurred in 2010–2012. Both general wholesale and retailing and general transportation increased their productivity in 2012, though they created less value added per person employed compared to the Serbian economy in general. Telephony and Internet maintain very high productivity relative to other sub-sectors. Even during the crisis these industries seem to be outstanding in their ability to create between four and five times more value added per person employed than the Serbian economy in general.

Figure 22: Non-dedicated support industries' contribution to economy in %



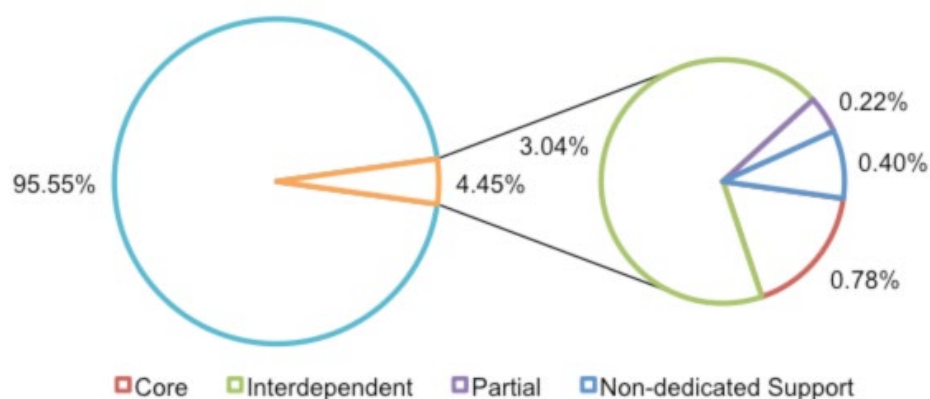
4.6 Foreign Trade of CBIs

As stated in the WIPO guidelines, the position of a national copyright-based industry in terms of the imports and exports of a country is an indicator that may reflect tendencies that deserve specific policy considerations (WIPO, 2003, p.41). Exports and imports data collection is important because a significant share of copyright-protected products (books, music, video, etc.) are sold in regional or global markets. The foreign trade analysis in this study relied on several statistical data sources. The share of foreign trade was first assessed by separately analyzing trade in goods and trade in services. On the one hand, the statistics of trade in goods were available according to the Classification of Products by Activity (CPA), which is consistent with the NACE Rev. 2. Thus, the shares of exports and imports were calculated directly using the same copyright factors and the same calculation structure in general as for the value added and employment calculations. On the other hand, the statistics of trade in services are not collected in accordance with the NACE either in Serbia or elsewhere. However, the balance of payment statistics could be applied for the analysis of trade in services.

4.6.1 Goods

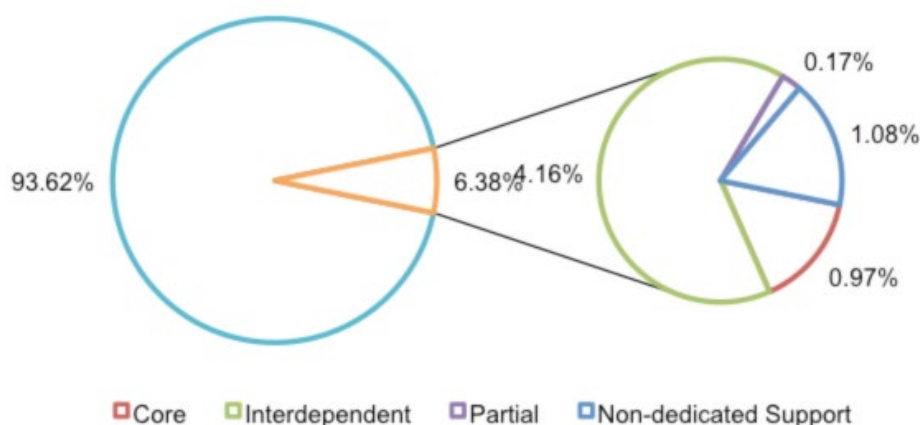
Based on the data collected, SORS was able to allocate imports and exports in accordance with the CPA 2008 classification (the European Classification of Products by Activity).⁶³ More specifically, Serbia has adopted the EU approach for the development of the CPA, with NACE as the reference framework. Each product – whether it is a transportable or a non-transportable good – is assigned to one single NACE activity. Therefore, up to the 4-digit level (classes), the structure of CPA corresponds to NACE. The link between CPA and NACE is evident in the CPA code: at all levels of CPA 2008, the coding of the first four digits is identical to that used in NACE Rev. 2.

Figure 23: Trade in goods: CBIs' export shares for 2012



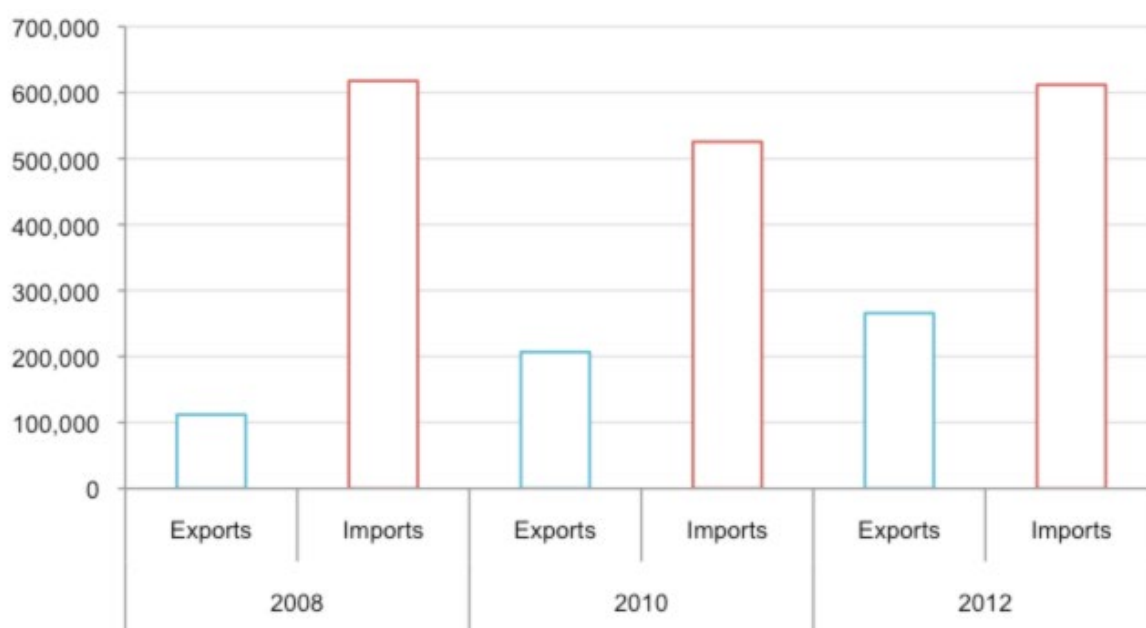
The CBIs' contribution to exports in goods made up 4.45% in 2012. This result is very close to that of the CBIs' contribution to GVA, since the copyright economy comprised 4.61% of the value added. The contribution to imports in goods in 2012 is significantly higher – 6.34%. However, the share of core CBIs is only 0.78% with respect to exports and 0.97% with respect to imports.

Figure 24: Trade in goods: CBIs' import shares for 2012



⁶³ The data source for foreign trade statistics is the Single Document (SAD) on exports and imports of goods. Customs officials and authorized shipping agents transmit all documents to the Customs Administration in electronic form. SORS takes over single administrative documents, ready for automatic data processing, from the Customs Administration and carries out further statistical control and processing. The value of goods in external trade statistics is expressed on the basis of prices fixed by enterprises in their contract provisions. All values are calculated on the basis of FOB prices for exports, CIF for imports (invoiced value of goods with added costs of transport, insurance, etc. to the border of the Republic of Serbia). The data are computed based on exchange rates applied for establishing customs base. The costs of shipping, insurance and reloading, etc. payable in foreign currency are calculated at current exchange rates applied for establishing customs base.

Figure 25: Trade in goods: CBIs 2008-2012 (in 000 dinars)



4.6.2 Services

The National Bank of Serbia (NBS), in its annual External Statistics Bulletin, publishes annual trade in services data broken down by type of services. NBS has provided an additional dataset for the years 2008, 2010 and 2012, but it could not provide a breakdown by NACE activity, as the information on services is not aggregated on the basis of main economic activity. Thus, the data on trade in services were calculated for the national economy as a whole.

Looking at actual amounts in euros, it turns out that the balance between exports and imports of copyright-related services was negative in 2008 and 2010, but it turned out substantially positive in 2012. The overall rise of the contribution of the copyright exports of services is primarily explained by a significant increase in the share of communication (computer and information) services. The share of these services rose as high as 12.13% of the exports in services in 2012 (see Annex 3 for details).

The largest positive contribution was generated by communication services, which earned 375 million euros in 2012, while imports were 267 million euros. Within this group computer services generated a 72 million euros surplus. The contribution of personal, cultural and recreational services also increased twofold over the 2008–2012 period. The most stable contribution to the export of services was generated by Royalties and License Fees which fluctuated around 0.4% of the overall exports of services. The tables below present the exports and imports of services of the copyright industry. We should note that we follow the approach adopted in the Lithuanian study. For the computer and information services sector, as well as for personal, cultural and recreational services, the copyright factor was 1, while for royalties and license fees the weight attributed was 0.5.

Table 24: Trade in services exports (in EUR mill)

	Copyright factor	2008		2010		2012	
		Mill euros	Share in total %	Mill euros	Share in total %	Mill euros	Share in total %
Communication services	1	178.35	6.51	239.57	8.99	374.91	12.13
Royalties and license fees	0.5	9.35	0.34	14.575	0.55	13.72	0.45
Personal, cultural and recreational services	1	47.23	1.72	74.65	2.80	90.55	3.50
Total services exports		234.93	8.57	328.795	12.34	479.18	16.08

Source: National Bank of Serbia

Table 25: Trade in services imports (in EUR mill)

	Copyright factor	2008		2010		2012	
		Mill euros	Share in total %	Mill euros	Share in total %	Mill euros	Share in total %
Communication services	1	213.24	7.28	215.22	8.10	267.11	9.09
Royalties and license fees	0.5	66.26	2.27	58.715	2.21	68.08	2.32
Personal, cultural and recreational services	1	50.81	1.74	56.26	2.11	55.56	2.03
Total services imports		330.31	11.29	330.195	12.42	390.75	13.44

Source: National Bank of Serbia

Tables 26 and 27 provide a summary that compares the copyright industry's foreign exports and imports contributions with the overall exports and imports. The total exports in copyright-based industries in 2012 amounted to EUR 778.7 million. Total imports in copyright-based industries in 2007 amounted to EUR 1.323 million. The balance of foreign trade of copyright-based industries was negative and the deficit amounted to EUR 545 million.

Table 26: Copyright-based industry's contribution to exports %

	2008		2010		2012	
	In EUR mill	Share in total, %	In EUR mill	Share in total %	In EUR mill	Share in total %
CBIs' Exports of goods	235.7	2.32	327.5	3.25	387.9	3.28
CBIs' Exports of services	330.3	3.25	330.2	3.28	390.8	3.30
CBIs' Exports of goods and services	566.0	5.57	657.7	6.53	778.7	6.58
Exports of goods and services	10,157.3	100	10,069.6	100	11,829.3	100

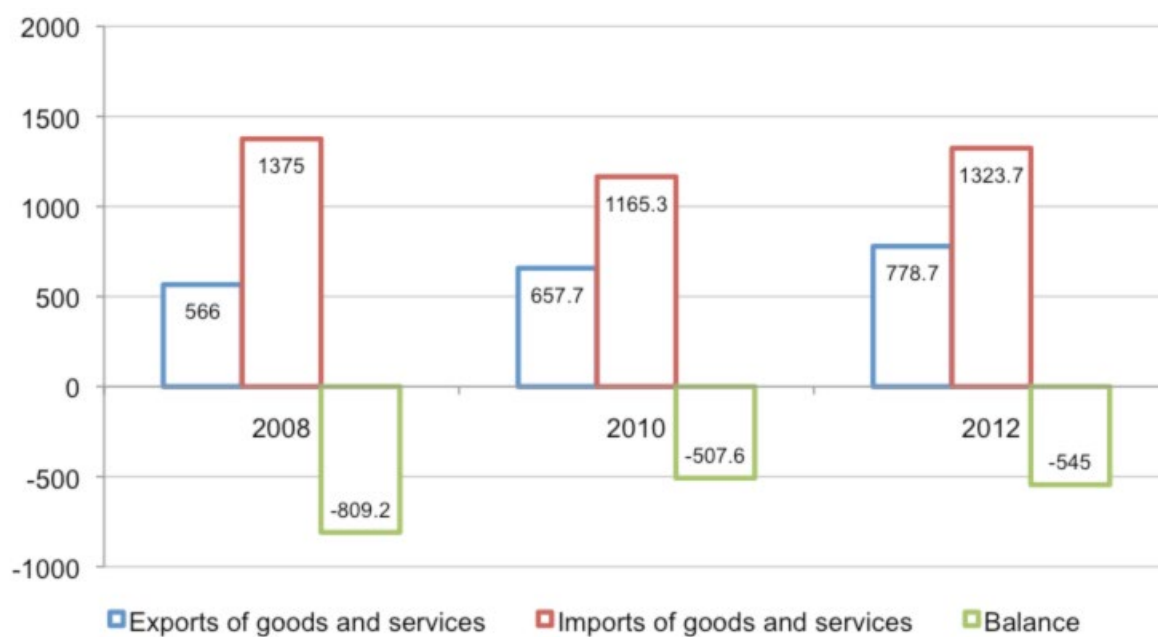
Source: SORS, NBS and authors' calculations

Table 27: Copyright-based industry's contribution to imports, %

	2008		2010		2012	
	In EUR mill	Share in total %	In EUR mill	Share in total %	In EUR mill	Share in total %
CBIs' Imports of goods	1,044.9	5.55	835.1	5.70	933.0	5.44
CBIs' Imports of services	330.3	1.75	330.2	2.25	390.8	2.28
CBIs' Imports of goods and services	1,375.2	7.30	1,165.3	7.96	1,323.7	7.72
Exports of goods and services	18,843.2	100	14,642.9	100	17,153.3	100

Source: SORS, NBS and authors' calculations

The Serbian economy is more dependent on the imports of copyright goods than on their exports. The trade balance for copyright-based industries is presented in Figure 26. While a substantial trade deficit was recorded throughout the period, Serbia managed to significantly decrease the deficit from over 800 million euros in 2008 to around 550 million euros in 2012.

Figure 26: Foreign trade in copyright-based industries (in EUR mill)


5. DEVELOPMENTS IN SELECTED CORE COPYRIGHT-BASED INDUSTRIES

This section examines key developments in selected core copyright-based industries – press and literature, radio and television, film and video, music, theatre and opera, and software, and we also present data related to existing collective societies in Serbia.

5.1 Press and Literature

Press and literature represents the key core copyright-based industry in Serbia. The press and literature group includes companies that print, publish and sell books, newspapers and magazines or similar products. Of these companies, printing companies have by far the most important share, followed by publishing companies and companies mainly selling these products. In this section we briefly analyze quantitative data related mainly to publishing and printing activities.

Table 28 shows which activities within the press and literature group were gaining or losing in economic importance. Both book publishing (58.11) and publishing of newspapers (58.13) contracted from a 0.043% share of the economy in 2008 to 0.027%, and from 0.039% to 0.025% in 2012 respectively. Other publishing activities experienced a similar decrease. The major exception is other printing (22.13), which did much better by expanding from a 0.073% to a 0.128% share of the economy in 2012.

Table 28: Value added in Press and Literature, % (key industries)

Code	Name	GVA 2008	GVA 2010	GVA 2012
58.11	Book publishing	0.043%	0.032%	0.027%
58.13	Publishing of newspapers	0.039%	0.039%	0.025%
58.14	Publishing of journals and periodicals	0.022%	0.025%	0.020%
58.19	Other publishing activities	0.010%	0.002%	0.003%
18.11	Printing of newspapers	0.013%	0.013%	0.005%
18.12	Other printing	0.073%	0.128%	0.128%
18.13	Pre-press and pre-media services	0.008%	0.013%	0.010%
47.61	Retail sale of books in specialized stores	0.007%	0.019%	0.016%
90.03	Artistic creation	0.008%	0.008%	0.007%
91.01	Library and archives activities	0.022%	0.026%	0.024%

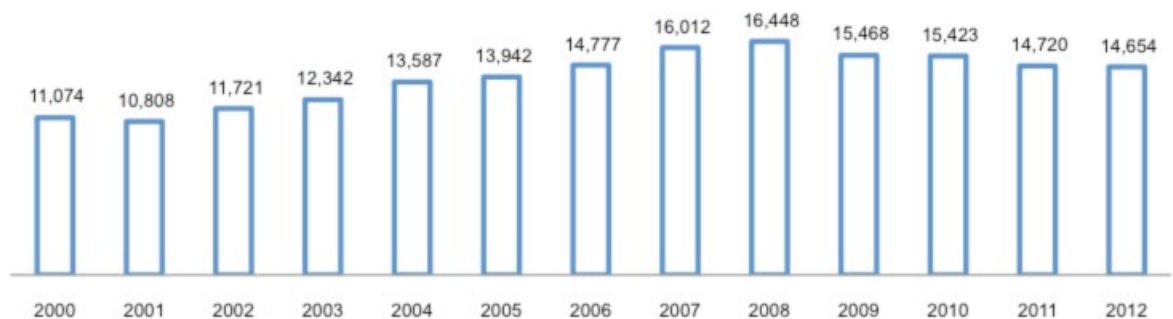
The number of enterprises in the press and literature sector slightly increased from 3312 in 2008 to 3349 in 2012, while different activities exhibited opposite movements (Table 29). The number of enterprises decreased noticeably in several activities: 58.11 book publishing, 58.13 publishing of newspapers, 58.19 other publishing and 47.61 retail sale of books in specialized stores. All other activities either showed no significant growth, increased slightly or had just a few enterprises. The number of entrepreneurs gradually increased from 3.313 in 2008 to 3.674 in 2012.

Table 29: Number of enterprises and entrepreneurs in Press and Literature (key industries)

Code	Name	Entrepreneurs			Enterprises		
		2008	2010	2012	2008	2010	2012
58.11	Book publishing	229	228	228	716	718	658
58.13	Publishing of newspapers	23	19	19	207	218	183
58.14	Publishing of journals and periodicals	46	47	56	233	242	241
58.19	Other publishing activities	55	54	52	138	125	115
18.11	Printing of newspapers	14	10	9	44	37	29
18.12	Other printing	1,358	1,418	1,373	789	835	794
18.13	Pre-press and pre-media services	363	425	444	179	184	163
47.61	Retail sale of books in specialized stores	590	545	493	183	183	160
90.03	Artistic creation	8	29	84	197	209	214
91.01	Library and archives activities	0	0	0	196	203	202

Source: SORS

More than 600 companies and 700 entrepreneurs published on average around 15,000 book titles per year for the 2008-2012 period. Yet, the number of books and brochures published by Serbian publishers decreased from 16,448 in 2008 to 14,654 in 2012 (or 11% less than four years before, when the peak of book publishing was reached). Throughout the observed period, around 85% of published book titles were first editions, while the remaining 15% were re-editions.

Figure 27: Total number of book titles published (2000-2012)


Source: National Library

Table 30: Published books in Serbia (2008-2012)

Year	Total	Translations (total)		Literature		Textbooks	Children
		Number	Share	Domestic	Translations		
2008	16,448	—	—	4,702	1,111	2,316	1,222
2009	15,468	3,514	23%	4,296	1,518	2,224	1,339
2010	15,423	3,071	20%	4,237	1,136	2,340	1,166
2011	14,720	3,378	23%	4,316	1,233	2,518	1,089
2012	14,654	2,813	19%	4,232	1,026	2,289	971

Source: National Library

Further inspection of the books published reveals that the trend in book publishing is moving slowly toward domestic works at the expense of translations. The former dominate and make up about 80% of the total number of titles. Literature represents only a minor part of all published books. In 2012, around 20% of the

total number of published book titles fell into this category. The rest were various professional or specialty books, children's literature, manuals, textbooks and similar publications. Of the literary works, around half were Serbian and half foreign.

The distribution of books is mainly (around 50%) organized and realized through the book stores which are part of different publishers in more than 50% cases. The book stores are unevenly distributed across the country, and are mostly concentrated in big cities such as Belgrade.

The total number of libraries rapidly declined in the period from the 1960s to the 2000s. In the 2000s, the number of libraries also decreased compared to the previous period, but not significantly. On the other hand, the number of registered library users (members) increased from 1,339,809 in 2010 to 1,369,295 in 2011.⁶⁴ In 2011, the shares of scientific, school and public libraries in the total number of libraries were 0.08%, 8.1% and 59.6% respectively. As for the total number of book copies in 2011, national libraries held 8.7%, tertiary education libraries 13.3%, school libraries 32.9%, specialized libraries 7.3% and public libraries 37.8%.⁶⁵ The total number of serial publications in 2010 fell by about 2.7% in relation to the previous year, in 2009 this number fell by about 6% in comparison to 2007, while in 2008 this number increased by about 14% in relation to the previous year.⁶⁶

Table 31: Structure of serial publications

Structure of Serial Publications	2008	2009	2010
Newspapers	27%	24%	21%
Periodicals	63%	67%	64%
Other serial publications	10%	9%	9%

Source: SORS

Diverse events in the area of publishing and distribution of books are very important for the further development and promotion of this industry. At the moment, about 135 different events are registered that are aimed at the promotion of books and literature.⁶⁷ Some of them are very popular and have contributed significantly to an increased understanding of the importance of this industry and attracting literature audiences (for example, the Belgrade Book Fair that has been taking place for almost 60 years, in 2013 gathered almost 500 publishers and more than 150 thousand visitors).

5.2 Radio and Television

Radio and television was among the top five most important core copyright industries in our study and had the fifth highest value added among core copyright industries. Table 32 shows which activities within the radio and television group were gaining or losing in economic importance. The table shows that television programming and broadcasting activities (60.20) have experienced a dramatic decline (from a 0.037% share of the economy in 2008 to 0.016% in 2012). Radio broadcasting experienced a similar decrease. However, the share of radio and television is probably underestimated as some TV stations are registered as companies performing cable telecommunications (61.10).

Table 32: Value added in Radio and Television, % (key industries)

Code	Name	GVA 2008	GVA 2010	GVA 2012
59.11	Motion picture, video and television program production activities	0.007%	0.006%	0.006%
60.10	Radio broadcasting	0.005%	0.001%	0.002%
60.20	Television programming and broadcasting activities	0.037%	0.019%	0.016%

⁶⁴ SORS, Statistical Yearbook (2012, 2011, 2010, 2009).

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ See Center for Study in Cultural Development, Agenda of Events, available at www.zaprokul.org.rs/AgendaManifestacija/Search.aspx.

Conversely, activity in this industry grew over the last decade. The total number of radio and TV programs was constantly increasing in the observed period from 2008 to 2012, with the highest rise in 2012. In 2012, there were 335 radio and TV stations.

Table 33: TV and Radio: Time, number of TV and radio stations

Year	Total	Time (hours)		Stations		Stations		National Minority Program
		TV	Radio	Private	Public / Other	TV	Radio	
2008	257	481,937	986,000	-	-	94	163	-
2009	283	694,439	1,531,373	192	91	96	187	29,441
2010	285	677,723	1,501,162	194	80	95	190	31,288
2011	330	792,357	1,752,731	229	101	110	220	26,728
2012	335	-	1,749,442	243	102	115	220	-

Source: SORS

In 2011, 2010 and 2009 the number of radio and TV stations increased in relation to the previous years (radio stations by 15%, 2% and 14,7%, and TV stations by 12%, 1% and 2% respectively). Radio program broadcasting increased by 15%, and TV programs by about 17% in 2011, decreased by 2% and by about 2% in 2010, and increased by 55% and by about 44% in 2009. In 2011 there were 70% private radio stations, about 26% public stations and 4% of others in the total number of radio stations. The percentage structure of TV stations was similar: private 70%, public 29% and the others about 1%. In 2010 there were 68% private radio stations, about 28% public stations and 4% of others in the total number of radio stations. The percentage structure of TV stations is similar: private 69%, public 27% and the others about 4%. In 2009, in the total number of radio stations, private radio stations were represented with 68%, public with about 28% and others with 4%. The structure of TV stations was similar: private 68%, public 30% and the others about 2%.⁶⁸ Currently, there are 436 terrestrial broadcasters, while 709 different operators have permits for cable broadcast. Of the terrestrial broadcasters, 400 broadcasters are covering the whole program, 36 broadcasters are offering specialized programs, and one broadcaster is offering advertising and selling programs.⁶⁹

Table 34: TV and radio broadcasters in Serbia

Structure of Terrestrial Broadcasting	TV Broadcasters	Radio Broadcasters
National coverage	5	5
Provincial coverage	1	0
Regional coverage	27	47
Local coverage	82	269

Source: Republic Broadcasting Agency

From 2009 to 2011, there were seven national broadcasters; however, they achieved a relatively low level of program diversity. The most dominant types of programs were informative, entertainment, serial and film programs respectively.⁷⁰

5.3 Film and Video

The film and video industry includes film production, film distribution and film showing. Table 35 shows which activities within the film and video group were gaining or losing in economic importance. Motion picture, video and television program production and distribution activities (59.11 and 59.13) as key industries within this group had a relatively stable share in GVA (0.005) throughout the period.

⁶⁸ Statistical Yearbook (2012, 2011, 2010, 2009), Statistical Bureau.

⁶⁹ Register of Licenses, Republic Broadcasting Agency (www.rra.org.rs).

⁷⁰ Comparative analysis of program coverage of national broadcasters from 2009 to 2011, Republic Broadcasting Agency (http://www.rra.org.rs/uploads/useruploads/PDF/1199-Uporedna_analiza_Zanrovi_29_oktob.pdf).

Table 35: Value added in Film and Video, %

Code	Name	GVA 2008	GVA 2010	GVA 2012
59.11	Motion picture, video and television program production activities	0.005%	0.005%	0.005%
59.12	Motion picture, video and television program post-production activities	0.000%	0.000%	0.000%
59.13	Motion picture, video and television program distribution activities	0.005%	0.005%	0.004%
59.14	Motion picture projection activities	0.002%	0.002%	0.002%
77.22	Renting of video tapes and disks	0.000%	0.000%	0.000%
46.43	Wholesale of electrical household appliances	0.000%	0.000%	0.001%
47.43	Retail sale of audio and video equipment in specialized stores	0.002%	0.003%	0.002%
18.20	Reproduction of recorded media	0.000%	0.000%	0.000%

There has been a significant privatization process going on since 2004 in the film industry. The profitability varied among different activities: the smallest earning power belongs to film showing (4.6%), and the distribution film industry had the biggest earning power (18.64%).⁷¹ In 2013, the structure of the film industry market consisted of 341 active companies, out of which 273 were in the production area, 50 in distribution and 33 independent cinema companies (about 126 cinema halls).⁷² The largest number is concentrated in Belgrade (about 90%).

Generally speaking, Serbia belongs to a group of countries with a small film production.⁷³ The production market is divided into several sub-segments: the production of feature-length films, production of animated films, documentaries and experimental films, production services carried out for second parties in the film industry, visual film effects, TV film production and the production of advertisements and audiovisual commercial items. As far as the total film production in 2008-2012 is concerned, this was unstable; however, it reached its peak in 2012 and was dominated by long- and short-length feature and documentary films. In 2012, 85 films of different genres were produced. In 2011 and 2012, 29 long-length films were produced, which is less compared to 2010 (35 long-length films) but more in comparison to 2008 and 2009. Medium-length films are undoubtedly under-represented in the film production in the period observed. On the other hand, the number of short films increased. Short-film production also reached its peak in 2012, when 39 short films were produced. Short documentary films were the most popular among short film producers over the years.

A majority of long-length films were completely domestic, while Serbian majority co-productions were more common than minority co-productions. The number of imported films remains almost the same in 2012 as in 2011.⁷⁴ In the structure of imported films, the most popular are American and European films, while the number of films imported from other countries is negligible.

⁷¹ Mikić H., "Cultural industries and cultural diversity in Serbia" Edicija Ekspertize 1 (2013), Creative Economy Group, Belgrade, available at www.kreativnaekonomija.net/wp-content/uploads/2012/08/Kulturne-industrije-i-raznolikost-kulturnih-izraza.pdf.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ranković, R., Cinematography in Serbia, 2012, Pregled RS 4 (2012).

Table 36: Number of films by type

Film Type	2008	2009	2010	2011	2012
Long-length feature	15	18	21	17	18
Long-length feature documentary	2	5	14	12	11
Long-length feature animated	0	1	0	0	0
Medium length	2	1	0	2	2
Medium-length documentary	9	3	8	8	6
Short feature	13	7	8	12	18
Short documentary	18	16	10	9	13
Short animated	6	9	5	8	8
Experimental	10	2	4	5	9
Total	75	62	70	64	85

Source: Film Center Serbia

The number of cinemas decreased over the period from 1968 (there were 679 cinemas in total)⁷⁵ to 2011. In the observed period the number of cinemas increased in 2010 compared to 2008. Nevertheless, out of the total number of registered cinemas, a smaller number of cinemas staged plays. For example, in 2011, only 74 cinemas were operating,⁷⁶ while in 2012, 88 cinemas were identified as active. The main problem is outdated and/or faulty equipment. The number of seats increased slightly from 2008 to 2010, after which it slightly declined.

Table 37: Number of cinemas and seats

Number of cinemas and seats	2008	2009	2010	2011	2012
Number of cinemas	101	117	126	124	576
Fixed with one room / screen	89	103	109	108	63
Fixed with more rooms / screens	–	12	15	15	13
Mobile	–	2	2	1	0
Rooms / screens	124	159	163	162	117
Seating capacity	44,782	46,509	51,580	50,853	39,721

Source: SORS and Film Center Serbia

About 85% of cinemas operate as a part of other organizations and institutions (usually within a local culture center) and only 15% of them are legal entities whose primary activity is showing films.⁷⁷ Many of them remained active from their foundation. The distribution of all long films increased in the period observed, as did the number of performances. The film-showing structure was dominated by feature and animated films, followed by documentaries. About 80% of films shown are American, while 20% are European and domestic.⁷⁸

⁷⁵ Cinemas in Serbia, (2013), Center for Study in Cultural Development, available at <http://www.zaprokul.org.rs/Media/Document/3560260a41044341978bdd2c38a90976.pdf>.

⁷⁶ SORS, Statistical Yearbook 2012.

⁷⁷ Mikić, H., Rikalo M., "Film market in Serbia: development challenges and solutions" Paper presented at 9th Annual International Conference on Communication and Mass Media, Institute for Education and Research, Athens, Greece, 16-19 May 2011, available at <http://www.kreativnaekonomija.net/wp-content/uploads/2012/08/Hristina-Mikic-Mirjana-Rikalo-Film-market-in-Serbia-11.pdf>.

⁷⁸ Mikić (2013).

Table 38: Number of films showing

Film showing	2008	2009	2010	2011	2012
Number of films screened	–	5,658	5,423	5,824	–
Domestic films	–	668	670	876	–
Foreign films	–	4,990	4,753	4,948	–
Number of performances	48,828	52,014	63,549	75,524	–
Domestic films	8,671	6,705	4,605	10,481	–
Foreign films	40,157	45,309	58,944	65,043	–

Source: SORS

Cinema audiences decreased over the decades. The average in 1990 was 843 visitors per 1,000 people, while in 2009 this ratio came down to 233 visitors per 1,000, i.e. about 84% of people used to go at least once a year to the cinema in 1990, while this percentage decreased to 23% in 2009.⁷⁹ However, the number of cinema visitors increased over the last several years. Because of their small number, Serbian films do not attract a high number of visitors, compared to American and European films. However, domestic films can become extremely popular among the Serbian audience, which was proven in 2011 and 2012, when several Serbian films broke attendance records.

Table 39: Cinemas in Serbia

	2008	2009	2010	2011	2012
Attendance	1,457,000	1,569,666	1,945,992	2,376,329	2,369,379
Domestic films	328,000	247,612	178,117	669,121	463,315
Foreign films	1,129,000	1,322,054	1,767,875	1,707,208	1,906,564
Attendance per thousand inhabitants	208	233	283	347	–
Gross box office receipts	328,823,033	355,728,724	522,428,504	673,076,208	748,668,650
Average ticket price	–	210	271	285	–

Source: SORS and Film Center Serbia

Larger cinema complexes with additional diverse services (within large shopping malls) attract audiences more than many small local cinema theaters, replacing them to a great extent. For example, the biggest such Serbian cinema was visited by more than 50% of cinema visitors in 2012.⁸⁰ The multiplex movie theaters have the highest market share and the most developed technical and technological equipment for showing contemporary films. It is also evident that the increasing popularity of home-theater audio-visual systems and greater availability of films via the internet, lack of the audience's habit of going to the cinema, the level of piracy, and the presence of internet or video clubs, have encouraged a great number of people to watch films at home.

In recent years, companies which try to deal with more than one type of work have appeared (film industry and video production, radio and TV activities, publishing and reproduction of audio scripts). It is noticeable that more and more production companies are turning to the production of advertisements and commercial audiovisual contents (e.g. music videos). On the other hand, there is also a significant trend in the rise of TV production.

⁷⁹ Ibid.⁸⁰ Mikić, H., Rikalo M. (2011).

5.4 Music and Theater

5.4.1 Music

There is no comprehensive and precise statistical data on the activity of music publishers available from the Statistical Office. The analysis in this subsection is thus limited. From 2009 to 2012, more than 1,800 albums were published in Serbia. Over the period 2009 to 2012 trends were generally negative regarding music production, as the number of albums published decreased over the observed period. The total number of albums published in 2012 recorded a double fall in comparison to those published in 2009. Almost 80% of published records were popular music. Of the total number of published records, 85% were made by Serbian authors.

Table 40: Music publishers and published records

Year	Number of Music Publishers		Number of Published Records	Type of Music		Origin	
	Total	Domestic		Classical	Popular	Domestic	Foreign
2008	—	—	—	—	—	—	—
2009	71	95%	612	30	582	466	84
2010	68	94%	521	25	496	434	37
2011	69	95%	478	57	421	396	74
2012	65	95%	359	34	325	275	48

Source: SOKOJ, OFPS, Business Registry Agency, H. Mihic (2013)⁸¹

In 2012, the Organization of Phonogram Producers of Serbia (OFPS), which is a collective society engaged in protecting the rights of phonogram producers, represented 56 Serbian music publishers and five foreign collective societies which had a repertoire of 2 million foreign records.⁸² Also, OFPS represented around 9,000 Serbian authors (composers, songwriters, arrangers, etc.). In 2012 the Serbian Music Authors' Organization (SOKOJ), which protects music copyright and related right holders, represented, on the basis of their authorizations, 8,148 domestic authors and copyright holders, and 33,711 foreign authors and right holders from 58 contractual societies, on the basis of the contract with foreign authors' societies.⁸³

In 2012, SOKOJ issued 18,359 licenses for the public use of music works to different legal entities.⁸⁴ Bearing in mind that one legal entity may have several objects using SOKOJ's repertoire, SOKOJ used to collect remuneration from 25,000–30,000 objects. In addition, in 2012, SOKOJ issued 698 licenses for the public use of music works for the purpose of different public performances of music, and identified 383 broadcasters (TV and radio stations), 85 cable broadcasters and 81 importers of equipment for reproduction of music, while the remaining number of users were categorized into the "public communication" class using music works in their objects.⁸⁵ In 2012, the average royalty of domestic authors and right holders on the basis of performing rights for 2012 amounted to 22,696 RSD, in spite of the fact that 2,498,189 uses of music works were noted.

⁸¹ Cultural industries and cultural diversity in Serbia (2013), H. Mikić, Edicija Ekspertize 1 (2013), Creative Economy Group, Belgrade, available at www.kreativnaekonomija.net/wp-content/uploads/2012/08/Kulturne-industrije-i-raznolikost-kulturnih-izraza.pdf.

⁸² Data obtained from the OFPS.

⁸³ SOKOJ's Annual Report for 2012 available at http://sokoj.rs/repository/CMS/13_annual_report/annual-report-2012.pdf.

⁸⁴ Data obtained from SOKOJ.

⁸⁵ SOKOJ does not have data on the number of users of music works in 2008 and 2010, as it registers them cumulatively.

Table 41: Number of noted uses of music works

Class	Number of Noted Uses of Music Works
Radio Broadcasting	2,047,145
TV Broadcasting	428,071
Concerts of Classical Music	479
Concerts of Popular Music	3,258
Restaurants with Live Music	3,048
Other Public Events	1,711
Online Use of Music Works	14,477
Total	2,498,189

Source: SOKOJ's Annual Report for 2012

The number of users of phonograms that OFPS identified in 2010 drastically increased compared to 2008; however, it slightly decreased in 2012. In 2012, 2011 and 2010, OFPS had 65, 60 and 58 members respectively.

Table 42: Users of phonograms

Year	Users of Phonograms			Total
	Broadcasters	Re-transmitters	Public Communicators	
2008	367	15	7,993	8,375
2010	345	45	12,471	12,861
2012	380	50	11,917	12,347

Source: OFPS

The main problem that SOKOJ and OFPS face regarding the remuneration process is the absence of income from the biggest public broadcasters, which in particular disrespect the obligations imposed on them by the Copyright Act, and against which court proceedings are still ongoing. At the moment, about 137 different music events (festivals, concerts, competitions) and 100 theater and performing arts events are registered.⁸⁶

5.4.2 Theater

Generally speaking, the trends are negative for theater activity in the observed period. In 2011, the number of theatres decreased compared to 2008, there were fewer performances at theater headquarters, and attendance went down.

Table 43: Theaters in Serbia

Theaters	2008/07*	2009/08	2010/09	2010/11	2012/11
Number of theaters (professional, amateur and children's theaters)	105	99	82	82	—
Seating and standing capacity (in professional theaters)	13,570	12,870	11,774	14,459	—
Performances	7,755	7,268*	6,536	6,538	—
Attendance, in thousands	1,620	1,454	1,409	1,413	—

Source: SORS *Tours abroad included

⁸⁶ Agenda of Events available at www.zaprokul.org.rs/AgendaManifestacija/Search.aspx.

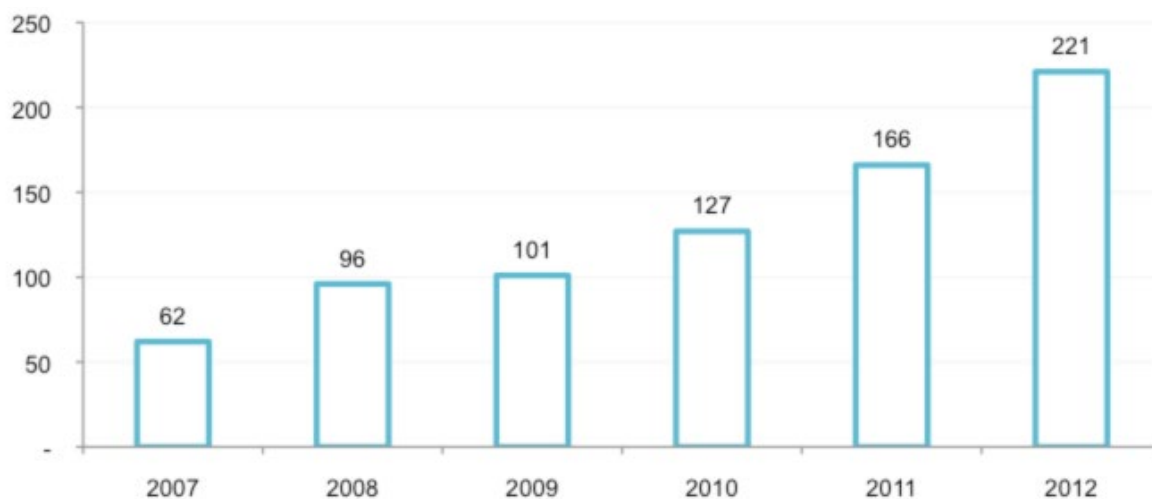
The number of theaters (professional, amateur and children) was down by about 17% in 2009/10 compared with the previous season, and by about 6% in the 2008/09 compared to the previous season. The number of plays in 2009/10 fell by 11%, and theater attendance decreased by over 3% in relation to the theater season 2008/09, while these figures in 2007/08 were 6.3% and 10% compared to the previous season, respectively.

5.5 Software

In 2011 there were 554 software companies, which formed 32% of the total IT industry enterprises.⁸⁷ In terms of company size, a large number of micro companies dominate the Serbian software industry. Employment in the software sector increased significantly above average in 2011 and counted 5,871 employees, which was 39.5% of the total of the IT sector workforce. The largest number of employees (39.6%) was in the microenterprise sub-sector, followed by the small (28.1%) and medium enterprises (22.7%).⁸⁸ The least amount employees were found in the big enterprise sub-sector (9.7%). The SME segment in the software sector recorded a significant number of employees (2,908), while more than 38.5% of employees from this segment work in the IT service sub-sector. The average number of employees in the SME segment was 26.7, which was almost three times bigger than the IT industry average (8.6).

Regarding the application software structure, in 2011 the Serbian market for application software reached a value of €31 million. Business applications (ERP, SCM and accounting) hold the largest part, constituting 52.9%, followed by collaborative applications (DM, CMS, CRM, BI, Portals, Web) with 28.2% of market shares.⁸⁹ Local software producers dominated the accounting and ERP market in Serbia, given their flexibility in developing custom software applications. Custom application development represented an option for a large number of companies (particularly SMEs) seeking a software solution. Other business applications (e-bus mobility, office) comprised 12%, while engineering applications comprised 6.9% of the total products in the software industry in 2011. The Serbian software sector generated a total revenue of more than €220 million in 2012, and despite the economic crisis, profit and net assets of the Serbian software sector continued to grow.

Figure 28: Export of computer services, EUR million



Source: National Bank of Serbia

When it comes to geographic distribution of software companies in Serbia, most companies are located in Belgrade, Niš and Novi Sad. Software companies have managed to create a strong presence in foreign markets by marketing their own solutions, but also by being able to provide the highest quality outsourcing services and partnering with IT companies worldwide. Thus, Serbia has emerged as a very interesting alternative location for the development of sophisticated software. In addition, several hundred freelance professionals from Serbia registered themselves on globally recognized sites such as *Elance* and *ODesk*, which focus on IT

⁸⁷ Matijević, M., M. Šolaja, "ICT in Serbia at a Glance", January, 2013.

⁸⁸ Ibid.

⁸⁹ Ibid.

and programming in the areas of web development, software development, and networking and information systems.⁹⁰ These people export their services to foreign clients and are not covered by the official statistics in Serbia; hence, their value added, employment and foreign trade contributions to the Serbian economy could not be assessed precisely. Moreover, there are several hundred companies registered on these two platforms.

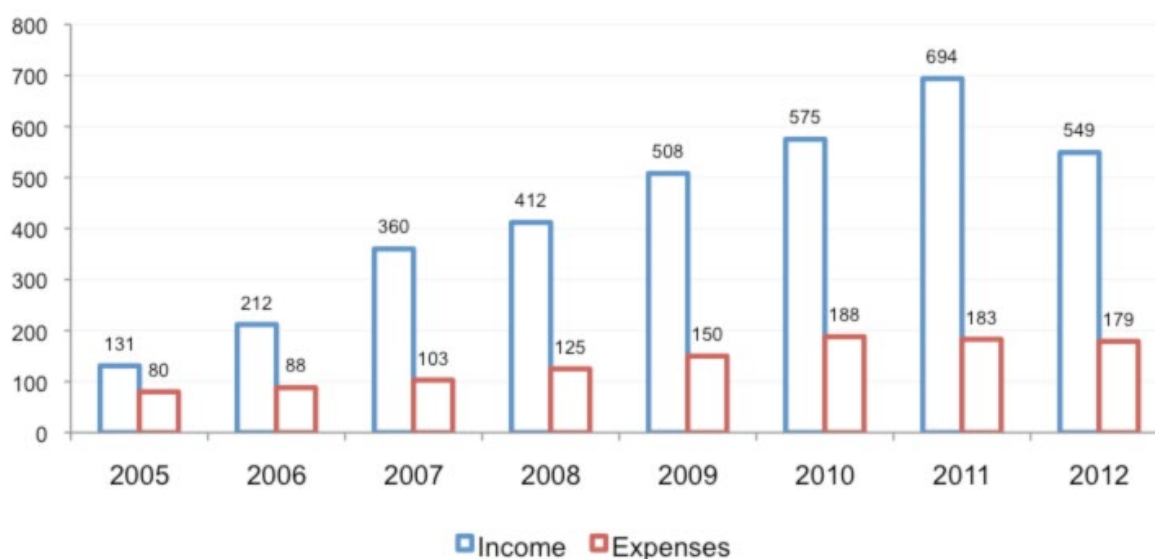
5.6 Collective Management Organizations

As already mentioned in Section 2, the Law on Copyright and Related Rights governs the collective administration of copyright and related rights, through collective management organizations, that is organizations for collective administration of copyright and related rights. The Intellectual Property Office, as the organization in the government administration of the Republic of Serbia responsible for intellectual property matters, issues operating licenses and supervises the work of collective management organizations.⁹¹

5.6.1 SOKOJ

The Serbian Music Authors' Organization (SOKOJ) was founded in 1950. It is the oldest and until recently the only organization for the collective protection of music copyright and related rights. SOKOJ is a non-profit organization with certain public powers transferred to the organization with the aim of protecting the rights of composers, songwriters, arrangers and other right holders in respect of musical works of all genres. SOKOJ performs its activity on the basis of the Copyright and Related Rights Act ("Official Gazette of Serbia and Montenegro" no.61/04) and appropriate authorizations are obtained, in accordance with the law, from the Intellectual Property Office. On the one hand, SOKOJ issues licenses for public performances and broadcasting protected music works, and on the other hand, it collects remuneration from users of those works, and distributes and processes payment of collected remuneration to authors and other copyright holders both in the country and abroad. SOKOJ represents, on the basis of their authorizations, over 9,000 domestic authors and copyright holders, and more than 2,000,000 foreign authors, on the basis of almost 100 bilateral agreements concluded with foreign copyright societies. SOKOJ has concluded 58 reciprocal representation contracts on performing rights, and 40 on mechanical rights.

Figure 29: Income and expenses of SOKOJ, RSD million



Source: SOKOJ's Annual Report for 2012

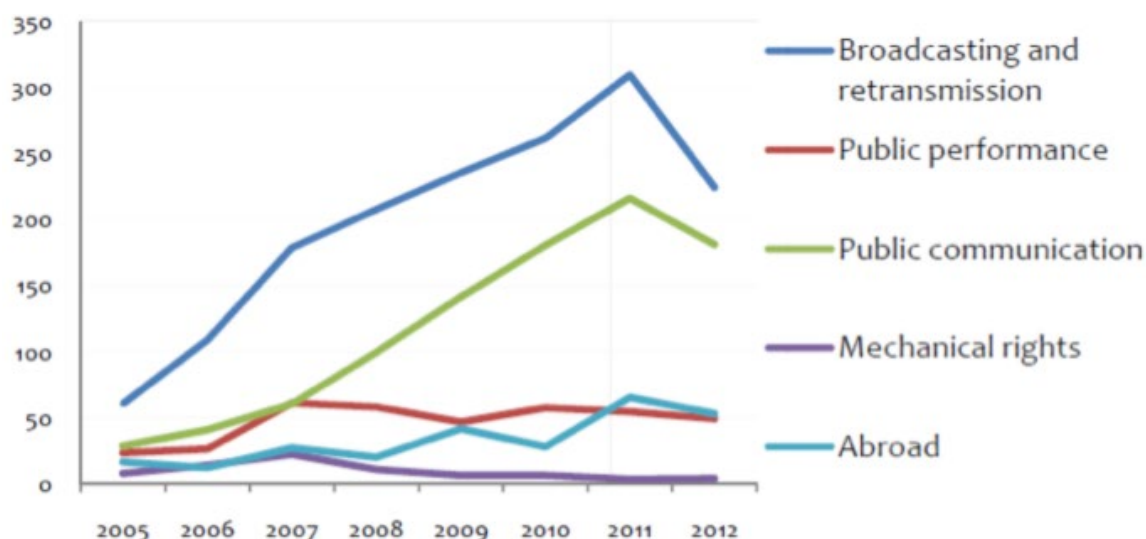
As shown in Figure 29, SOKOJ's income increased from 2005 to 2011, and significantly decreased in 2012. Namely, its income of 549.1 million RSD in 2012 was 21.9% lower compared to 2011, making 60.88% of

⁹⁰ Based on www.elance.com and www.odesk.com search engine results.

⁹¹ A new organization for the collective administration of copyright and related rights has been announced (the establishment of the organization that will represent publishers is underway).

the realized income from the Annual Plan for 2012. In 2012, SOKOJ's income was lower than in 2010, but still higher than in 2008. The average rate of payment realization in 2012 was 40.19%.

Figure 30: Income of SOKOJ per class (2005-2012)



Source: SOKOJ

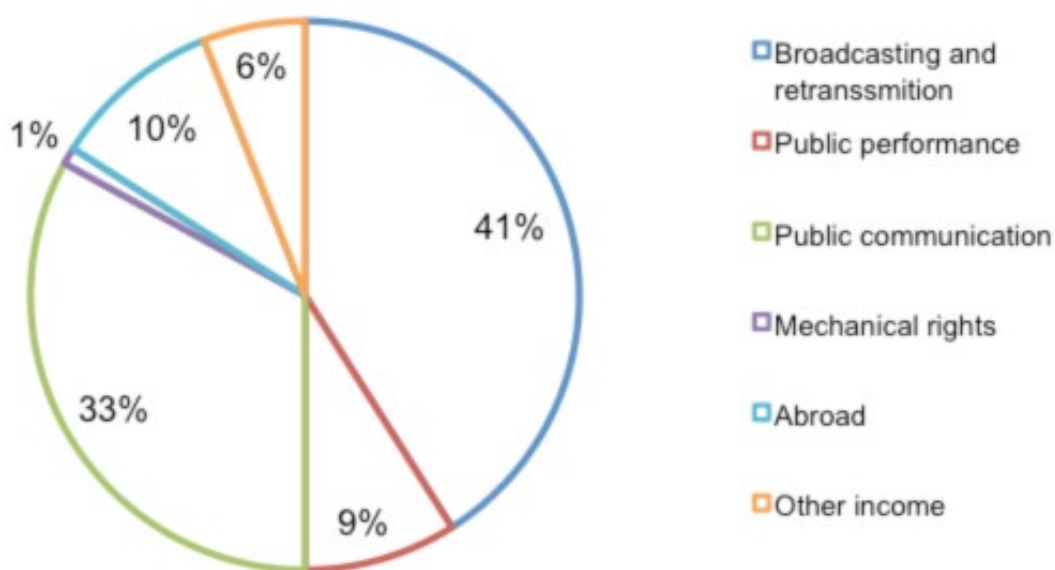
Income decreased in the class "broadcasting", especially in the subclass "concerts of classical music", while income in the subclass "cable broadcasting" increased. Income from abroad also dropped in 2012, consisting of payments from 40 foreign societies. Income on the basis of mechanical rights increased.

There are a number of factors which contributed to the drastic fall of income in 2012. Firstly, SOKOJ has signed for the first time written agreements on the Tariffs of Remunerations with numerous representative associations of users in 2012. It caused great discontent among users, and was followed by an organized boycott of the payment of remuneration. SOKOJ responded by proposing negotiations for discounts. After the negotiations, which lasted several months, protocols about the application of tariffs were changed, enabling different discounts for users, each of them under certain conditions. Most importantly, there was a time limit for payment of remuneration. Agreements were made and finalized during the summer; however, in the meantime, SOKOJ was not issuing invoices. The discounts and postponement of the calculation of remunerations for users in the first half of 2012, as well as significant changes in the payment technology that SOKOJ introduced in summer 2012, lessened the decrease in income in 2012.

Secondly, the tension created by the Amendments to the Law on Copyright and Related Rights adopted in 2012 also affected the decrease in income. The Amendments to the Law prescribed that craftsmen stores (independent and productive) are exempt from paying authors remuneration. For communication to the public of music works in commercial premises (hotels, restaurants, stores, etc.), the maximum amount of remuneration is up to the level of the minimum wage excluding taxes and fees, and users are classified by users' associations. Remuneration for communication to the public is paid jointly for authors' and related rights, with the proportion— 50% to authors and 50% to interpreters and phonogram producers – now divided evenly. Remuneration for payers of private copying remuneration is limited, up to 1% or 3% from the selling price of a device or a carrier. In addition to the aforementioned changes, lobbying for amending the existing Law started at the beginning of 2012, and a large number of users expected the fulfillment of a promise related to the abolition of music remuneration announced by some political representatives, which affected the decrease in remuneration.

Finally, a long-lasting problem with the Serbian national broadcaster RTS has not been resolved yet. The Serbian national broadcaster RTS had not paid royalties, persistently refusing to honor its copyright obligations. This reluctance of RTS to pay royalties significantly impacted on SOKOJ's decrease in income.

Figure 31: Structure of SOKOJ's income in 2012



Source: SOKOJ

In the 2012 income structure, the major part came still from the use of music works on the basis of broadcasting: radio and TV dropped, as well as public communication, while cable increased. In 2012, five music publishers (RDU RTS PGP, City Records, B92, Grand Production, and Power Music Label) recorded a fall in SOKOJ's income from production and distribution of sound and/or image carriers (mechanical rights), with a total of 898 music editions.⁹²

In regards to SOKOJ's expenses, they increased from 2005 to 2010, which was primarily caused by an increasing number of court proceedings against users who did not pay their financial obligations on the basis of copyright. However, SOKOJ's expenses decreased in 2011 and then again in 2012. Its expenses of 179.3 million RSD in 2012 were similar to 2011 (98.2% compared to 2011). The proportion of expenses in the income in 2012 was 32.64%. The total amount of funds for distribution on the basis of performing rights for 2012 dropped due to the decrease of income reaching 360.6 million RSD. SOKOJ distributed 4.2 million RSD on the basis of mechanical rights in 2012, after deducting expenses in the amount of 10%, to the total of 1,574 domestic authors and right holders and 31 contractual societies. They earned 53.2 million RSD from abroad. On the basis of reports and accounts of foreign authors' societies, 21.6 million RSD from cable retransmission of domestic channels abroad were distributed through the Fund for Performing Rights, and the remaining amount of 28.4 million RSD, after deducting the 10% expenses which remained unchanged, was distributed to authors and right holders.

⁹² Serbian Music Authors' Organization's Annual Report for 2012, available at http://sokoj.rs/repository/CMS/13_annual_report/annual-report-2012.pdf.

5.6.2 *Organization for Collective Administration of Performers' Rights – PI ("Prava interpretatora")*

The organization for Collective Administration of Performers' Rights, as a collective organization operating under the collective management license granted by the Intellectual Property Office in 2007 (and updated in 2012), is authorized to perform the following activities:

- Collection and distribution of a performer's equitable remuneration for broadcasting, rebroadcasting, public performance and communication to the public of performances from the published phonograms;
- Collection and distribution of a performer's remuneration for making available on demand to the public of performances, by wired or wireless means;
- Collection and distribution of a performer's remuneration for private copying; and
- Protection of foreign performers and protection of Serbian performers abroad by concluding bilateral agreements with foreign collective management organizations.

PI does not collect the remunerations from users itself, as this is carried out by SOKOJ (special remuneration from 2012, and public communication remuneration from 2014) and OFPS (unified remuneration for broadcasting and rebroadcasting from 2011, and public communication remuneration from 2011 to 2014). Therefore, SOKOJ and OFPS distribute an appropriate amount of collected remunerations for performers to PI, which distributes the collected revenue to performers. Calculation of individual remunerations is done in accordance with the Distribution Plan based exclusively on playlists distributed by the users. PI had 380 members in 2008, 500 in 2010 and 830 in 2012. Nowadays, PI has around 1,100 members, while it protects the rights of almost 15,000 performers. It is important to note that membership is not mandatory if performers are willing to protect their rights with PI.⁹³ PI protects the rights of more than 100,000 interpretations, which means that it has full information and mandates directly gained from the performers for this number of interpretations (songs) to protect accompanying rights.

From 2005 to 2010, there was no equitable remuneration for communication to the public, broadcasting, cable retransmission, making available on demand, and remuneration from rental right (collection for performers).⁹⁴ The lack of payment in Serbia, or not recorded collection of remuneration for cable retransmission could be explained, for example, by the fact that remuneration for cable retransmission is collected together with remuneration for broadcasting and communication to the public. As for private copying collection, from 2005 to 2008 there were neither collections nor remuneration, while in 2009 and 2010 gross amounts of 68,200 EUR and 29,100 EUR respectively (VAT not included), were noted. PI did not distribute any remuneration to performers in 2008, while it distributed 2.4 million RSD in 2010, and 74 million RSD in 2012 in total.⁹⁵ In 2009 and 2010, PI distributed revenue to performers just on the basis of collected special remuneration, which included remuneration from imported empty compact discs, photographs and photocopying devices. One of the reasons for this state of play was the unresolved relationship between PI and OFPS. A significant increase in the performers' remuneration distributed in 2012 compared to 2010 was directly related to achieving a clear definition of PI's relationship with OFPS. Also, the fact that some of the above-mentioned rights have only been recently introduced into the national legislation, and collection of remuneration has not yet begun, could also explain the lack of performers' equitable remunerations in the period analyzed.

5.6.3 *OFPS (Organization for Collective Administration of Phonogram Producers' Related Rights of Serbia)*

The organization for Collective Administration of Phonogram Producers' Related Rights of Serbia is a collective society engaged in protecting the rights of phonogram producers, founded in 2002. OFPS represents music publishers from the territory of the Republic of Serbia, protecting their interests, collecting remuneration for the exploitation of music, and distributing it to phonogram producers. Members of the Organization are phonogram producers and holders of rights of phonogram producers, legal and natural persons headquartered or domiciled in the territory of the Republic of Serbia, who submit the repertoire of published phonograms to the OFPS and who license the Organization to exercise, in its own name and for their account, protection of the rights of phonogram producers and holders of the rights of phonogram producers.

⁹³ PI also assesses that there are around 100 importers of compact discs.

⁹⁴ Performers' Rights in International and European Legislation: Situation and Elements for Improvement (2013), AEPO ARTIS.

⁹⁵ Data obtained from PI.

5.6.4 *Organization for Collective Administration of Photographic Rights – OFA*

The Organization for Collective Administration of Photographic Rights started operating only in 2013 on the basis of the license granted by the Intellectual Property Office. Specifically, OFA exercises the following rights: allows cable retransmission of photographic works; the remuneration from import or trade of technical equipment that could be used for distribution of photographic works for personal and non-commercial needs of physical persons, and the remuneration from a legal or physical entity which used to offer paid photocopying services.

6. CONCLUSIONS AND RECOMMENDATIONS

The study shows that the Serbian copyright and related rights industry made up between 3.66 and 4.00% of the country's GDP over the period of 2008–2012, and that copyright-related economic activities show that the Serbian copyright industry comprised 4.45% of the gross value added in 2012. The core copyright industry has a dominant share, with more than half of the value added created in the copyright industry in 2012. While the core copyright industry contributed 3.10% of GVA, the interdependent copyright industry made up 0.58%, and the partial copyright industry created 0.22% of the value added in the economy. The largest copyright industry throughout the period was Press and Literature with a little less than one% contribution to the economy at the end of the period. The rapidly growing Software and Databases industry, classified as a core copyright activity, has quickly been catching up.

The findings above allow for mapping the Serbian copyright industries' position in the global arena by comparing the importance of the copyright industry in other countries which have conducted similar statistical research. Serbia is somewhat below average and takes only 34th position in the group of 40 countries. Nevertheless, in terms of the contribution of the core copyright industries, Serbia, with a 3.10% contribution, ranks 23rd. This is close to the average for other countries, as more than half of the total contribution (2.85% out of 5.22%) of the copyright industries to GDP comes from the core copyright industries. The Serbian copyright industry is also smaller than a corresponding part of the economy in neighboring Croatia, Romania and Bulgaria. International comparison reveals that Serbia has a huge potential to increase the share of CBIs, and move toward a more advanced stage of the copyright economy.

1. Development policy and planning the follow-up study. Despite several national strategic documents, including the most recent Strategy for the Development of the Intellectual Property in Serbia for 2011–2015, none elaborate in detail the financial, tax and statistical aspects and features of copyright and related rights industries. Above all, most documents lack sufficient and reliable data to identify fully the scope of the problem and define adequate policy measures. The study shows that Serbia has a great potential to increase further the share of CBIs in the total output, but also reveals major weaknesses and underdeveloped CBIs. The recommendation to the Serbian intellectual property office is to plan the implementation of a follow-up copyright study that should cover the years starting with 2013. Depending on the funding available, it would be ideal to conduct the study at least once every five years. The SIPO could also initiate similar exercises with respect to other intellectual property rights (trademarks, patents, etc.). The best way to solve the data gathering problem would be to discuss the possibility that SORS should provide SIPO with the data on an annual basis, so that SIPO could use it for analytical purposes. This would enable the Government of Serbia and SIPO to pursue evidence-based policies and specific policy measures informed by rigorously established objective evidence.
2. Policies aimed at raising and improving general awareness of the importance of copyright in Serbia. There is a need to raise and improve general awareness of copyright in Serbia. During our focus groups discussions with the panel of several CBIs 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 creators and other right-holders of the meaning and scope of their rights and the implications of their rights.
3. Policies aimed at raising the collaboration and quality of collective management organizations. Special focus should be on development and collaboration policies for CBIs and especially for collective management organizations. Copyright-based industries consist of many different types of activities and fields, 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, an exchange of information and experience and other ways of collaboration between them could lead to a more favorable position toward policymakers and other stakeholders, for example professional associations. This is especially relevant as several CMOs have just been established or they are about to be established.
4. Improvements in copyright and related-right enforcement. Although copyright infringement and the problem of piracy were not the subject of this study, we cannot neglect the fact that this is one of the most important issues in Serbia. Proper legal enforcement of rights represents a *sine qua non* for successful

copyright and a related rights framework. It is the necessary step that would enable continuous growth of the core copyright industries. Weak enforcement represents a major barrier to entry and prevents development of certain markets (e.g. in Serbia the e-books market is almost nonexistent and publishers quote weak enforcement as the most important reason). A proper action plan for improvement of enforcement should be based on a thorough analysis of present industry practices. Education of judges who preside in disputes related to copyrights and related rights is of crucial importance.

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Annex 1 Complete Copyright-based Activities List

with Correspondence between NACE Rev. 1.1 and NACE Rev. 2, and Corresponding Copyright Factors

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
2211	5811	Direct	SINGLE	I.1	Press and Literature	Book publishing	100	1	1	1
2211	5812	Direct	SINGLE			Publishing of directories and mailing lists	100	1	1	1
2212	5813	Direct	SINGLE			Publishing of newspapers	100	1	1	1
2213	5814	Direct	SINGLE			Publishing of journals and periodicals	100	1	1	1
2215	5819	Direct	SINGLE			Other publishing activities	100	1	1	1
2221	1811	Direct	SINGLE			Printing of newspapers	100	1	1	1
2222	1812	Direct	SINGLE			Other printing	100	1	1	1
2223	1814	Direct	SINGLE			Binding and related services	100	1	1	1
2224	1813	Direct	SINGLE			Pre-press and pre-media services	100	1	1	1
2225								1	1	1
52471	4761	Direct	SINGLE			Retail sale of books in specialized stores	100	1	1	1
52472	4762	Direct	SHARED			Retail sale of newspapers and stationery in specialized stores	90	1	1	1
5250	4779	Direct	SHARED			Retail sale of second-hand goods in stores	10	1	1	1
74851	7430	Direct	SINGLE			Translation and interpretation activities	100	1	1	1
9240	6391	Direct	SINGLE			News agency activities	100	1	1	1
9231	9003	Direct	SHARED			Artistic creation	60	1	1	1
9251	9101	Direct	SINGLE			Library and archives activities	100	1	1	1
7485	8219	Direct	SINGLE			Photocopying, document preparation and other specialized office support activities	100	1	1	1

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
2214	5920	Direct	SINGLE	I.2	Music, Theater, Opera	Sound recording and music publishing activities	100	1	1	1
2231	1820	Direct	SHARED			Reproduction of recorded media	46	1	1	1
5245	4743	Direct	SHARED			Retail sale of audio and video equipment in specialized stores	15	1	1	1
5245	4763	Direct	SINGLE			Retail sale of music and video recordings in specialized stores	100			1
5143	4643	Direct	SHARED			Wholesale of electrical household appliances	0.8	1	1	1
9231	9001	Direct	SINGLE			Performing arts	100	1	1	1
9232	9004	Direct	SINGLE			Operation of arts facilities	100	1	1	1
9234	9329	Direct	SINGLE			Other amusement and recreation activities	90	1	1	1
9231	9002	Direct	SINGLE			Support activities to performing arts	100	1	1	1
9211	5911	Direct	SHARED			Motion picture, video and television program production activities	45.5	1	1	1
9211	5912	Direct	SHARED	I.3	Motion Picture and Video	Motion picture, video and television program post-production activities	45.5	1	1	1
9212	5913	Direct	SINGLE			Motion picture, video and television program distribution activities	100	1	1	1
9213	5914	Direct	SINGLE			Motion picture projection activities	100	1	1	1
71402	7722	Direct	SINGLE			Renting of video tapes and disks	100	1	1	1
5143	4643	Direct	SHARED			Wholesale of electrical household appliances	0.8	1	1	1
5245	4743	Direct	SHARED			Retail sale of audio and video equipment in specialized stores	15	1	1	1
2232	1820	Direct	SHARED			Reproduction of recorded media	2	1	1	1
7481	7420	Direct	SINGLE	I.5	Photography	Photographic activities	100	1	1	1
9231	9003	Direct	SHARED	I.7	Visual and Graphic Arts	Artistic creation	40	1	1	1
92521	9102	Direct	SHARED			Museums activities	20	1	1	1

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
9220	5911	Direct	SHARED			Motion picture, video and television program production activities	54.5	1	1	1
9211	5912	Direct	SHARED	I.4	Radio and TV	Motion picture, video and television program post-production activities	54.5	1	1	1
9220	6010	Direct	SINGLE			Radio broadcasting	100	1	1	1
9220	6020	Direct	SINGLE			Television programming and broadcasting activities	100	1	1	1
2233	1820	Direct	SHARED			Reproduction of recorded media	52	1	1	1
7221	5821	Direct	SINGLE			Publishing of computer games	100	1	1	1
	5829	Direct	SINGLE			Other software publishing	100	1	1	1
7222	6201	Direct	SINGLE	I.6	Software and Databases	Computer programming activities	100	1	1	1
	6202	Direct	SINGLE			Computer consultancy activities	100	1	1	1
7230	6311	Direct	SINGLE			Data processing, hosting and related activities	100	1	1	1
7260	6209	Direct	SINGLE			Other information technology and computer service activities	100	1	1	1
7440	7311	Direct	SINGLE	I.8	Advertising Services	Advertising agencies	100	1	1	1
7440	7312	Direct	SINGLE			Media representation	100	1	1	1
n.a.	n.a.	Direct	SINGLE	I.9	Collective Societies	Collective societies	100	1	1	1
3230	2640	Direct	SINGLE		TV sets, Radios, VCRs, [...] and Other Similar Equipment	Manufacture of consumer electronics	100	1	1	1
5143	4643	Direct	SHARED	II.1		Wholesale of electrical household appliances	33	1	1	1
5245	4743	Direct	SHARED			Retail sale of audio and video equipment in specialized stores	70	1	1	1

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
3002	2620	Direct	SINGLE	II.2	Computers and Equipment	Manufacture of computers and other information- processing equipment	100	1	1	1
5184	4651	Direct	SINGLE			Wholesale of computers, computer peripheral equipment and software	100	1	1	1
7133	7733	Direct	SINGLE			Renting and leasing of office machinery and equipment (including computers)	100	1	1	1
5185	4652	Direct	SHARED			Wholesale of electronic and telecommunications equipment and parts	95	1	1	1
3001	2823	Direct	SINGLE	II.4	Photocopiers	Manufacture of office machinery	100	1	1	1
3630	3220	Direct	SINGLE	II.3	Musical Instruments	Manufacture of musical instruments	100	1	1	1
3340	2670	Direct	SINGLE	II.5	Photographic and Cinematographic Instruments	Manufacture of optical instruments and photographic equipment	100	1	1	1
5143	4643	Direct	SHARED			Wholesale of electrical household appliances	2	1	1	1
2465	2680	Direct	SINGLE	II.6	Blank Recording Material	Manufacture of magnetic and optical media	100	1	1	1
2111	1711	Direct	SINGLE	II.7	Paper	Manufacture of pulp	100	0.7	0.7	0.7
2112	1712	Direct	SINGLE			Manufacture of paper and paperboard	100	0.7	0.7	0.7
2955	2895	Direct	SINGLE			Manufacture of machinery for paper and paperboard production	100	0.7	0.7	0.7
5156	4676	Direct	SINGLE			Wholesale of other intermediate products	100	0.7	0.7	0.7
52473	4762	Direct	SINGLE			Retail sale of newspapers and stationery in specialized stores	10	1	1	1

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
1710	1310	Indirect	SINGLE	III.1	Apparel, Textiles and Footwear	Preparation and spinning of textile fibers	100	0.006	0.006	0.006
1720	1320	Indirect	SINGLE			Weaving of textiles	100	0.006	0.006	0.006
1730	1330	Indirect	SINGLE			Finishing of textiles	100	0.006	0.006	0.006
1740	1392	Indirect	SINGLE			Manufacture of made-up textile articles, except apparel	100	0.006	0.006	0.006
1760	1391	Indirect	SINGLE			Manufacture of knitted and crocheted fabrics	100	0.006	0.006	0.006
1771	1431	Indirect	SINGLE			Manufacture of knitted and crocheted hosiery	100	0.006	0.006	0.006
1772	1439	Indirect	SINGLE			Manufacture of other knitted and crocheted apparel	100	0.006	0.006	0.006
1810	1411	Indirect	SINGLE			Manufacture of leather clothes	100	0.006	0.006	0.006
1821	1412	Indirect	SINGLE			Manufacture of work wear	100	0.006	0.006	0.006
1822	1413	Indirect	SINGLE			Manufacture of other outerwear	100	0.006	0.006	0.006
1823	1414	Indirect	SINGLE			Manufacture of underwear	100	0.006	0.006	0.006
1824	1419	Indirect	SINGLE			Manufacture of other wearing apparel and accessories	100	0.006	0.006	0.006
1910	1511	Indirect	SINGLE			Tanning and dressing of leather; dressing and dyeing of fur	100	0.006	0.006	0.006
1920	1512	Indirect	SINGLE			Manufacture of luggage, handbags and the like, saddlery and harness	100	0.006	0.006	0.006
1930	1520	Indirect	SINGLE			Manufacture of footwear	100	0.006	0.006	0.006
2954	4664	Indirect	SHARED			Wholesale of machinery for the textile industry and of sewing and knitting machines	40	0.006	0.006	0.006
5142	4642	Indirect	SINGLE			Wholesale of clothing and footwear	100	0.006	0.006	0.006
5241	4751	Indirect	SINGLE			Retail sale of textiles in specialized stores	100	0.006	0.006	0.006
5242	4771	Indirect	SINGLE			Retail sale of clothing in specialized stores	100	0.006	0.006	0.006
5243	4772	Indirect	SINGLE			Retail sale of footwear and leather goods in specialized stores	100	0.006	0.006	0.006
3621	3211	Indirect	SINGLE	Jewelry and Coins	Jewelry and Coins	Striking of coins	100	0.2	0.2	0.2
3622	3212	Indirect	SINGLE			Manufacture of jewelry and related articles	100	0.2	0.2	0.2
3661	3213	Indirect	SINGLE			Manufacture of imitation jewelry and related articles	100	0.2	0.2	0.2
52485	4777	Indirect	SINGLE			Retail sale of watches and jewelry in specialized stores	100	0.2	0.2	0.2

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
3663	3299	Indirect	SINGLE		Other Crafts	Other manufacturing n.e.c.	100	0.4	0.4	0.4
3611	3101	Indirect	SINGLE		Furniture	Manufacture of office and shop furniture	77	0.050	0.050	0.050
3612						Manufacture of office and shop furniture	23	0.050	0.050	0.050
3613	3102	Indirect	SINGLE			Manufacture of kitchen furniture	100	0.050	0.050	0.050
3614	3109	Indirect	SINGLE			Manufacture of other furniture	100	0.050	0.050	0.050
3615	3103	Indirect	SINGLE			Manufacture of mattresses	100	0.050	0.050	0.050
5244	4759	Indirect	SINGLE			Retail sale of furniture, lighting equipment and other household articles in specialized stores	100	0.050	0.050	0.050
2051	1629	Indirect	SINGLE			Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	100	0.050	0.050	0.050
2052										
2611	2311	Indirect	SINGLE		Household Goods, China and Glass	Manufacture of flat glass	100	0.005	0.005	0.005
2612	2312	Indirect	SINGLE			Shaping and processing of flat glass	100	0.005	0.005	0.005
2613	2313	Indirect	SINGLE			Manufacture of hollow glass	100	0.005	0.005	0.005
2614	2314	Indirect	SINGLE			Manufacture of glass fibers	100	0.005	0.005	0.005
2615	2319	Indirect	SINGLE			Manufacture and processing of other glass, including technical glassware	100	0.005	0.005	0.005
2621	2341	Indirect	SINGLE			Manufacture of ceramic household and ornamental articles	100	0.005	0.005	0.005
2622	2342	Indirect	SINGLE			Manufacture of ceramic sanitary fixtures	100	0.005	0.005	0.005
2623	2343	Indirect	SINGLE			Manufacture of ceramic insulators and insulating fittings	100	0.005	0.005	0.005
2624	2344	Indirect	SINGLE			Manufacture of other technical ceramic products	100	0.005	0.005	0.005
2625	2349	Indirect	SINGLE			Manufacture of other ceramic products	100	0.005	0.005	0.005
2626	2320	Indirect	SINGLE			Manufacture of refractory products	100	0.005	0.005	0.005
2875	2599	Indirect	SINGLE			Manufacture of other fabricated metal products n.e.c.	100	0.005	0.005	0.005
3150	2740	Indirect	SINGLE			Manufacture of electric lighting equipment	100	0.005	0.005	0.005

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
1751	1393	Indirect	SINGLE	III.6	Wall Coverings and Carpets	Manufacture of carpets and rugs	100	0.004	0.004	0.004
2124	1724	Indirect	SINGLE			Manufacture of wallpaper	100	0.004	0.004	0.004
2125	1729	Indirect	SINGLE			Manufacture of other articles of paper and paperboard	100	0.004	0.004	0.004
	4753	Indirect	SINGLE			Retail sale of carpets, rugs, wall and floor coverings in specialized stores	100	0.004	0.004	0.004
3650	3240	Indirect	SINGLE	III.7	Toys	Manufacture of games and toys	100	0.4	0.4	0.4
52487	4765	Indirect	SINGLE			Retail sale of games and toys in specialized stores	100	0.4	0.4	0.4
7420	7111	Indirect	SINGLE	III.8	Architecture, Engineering, Surveying	Architectural activities	100	0.25	0.25	0.25
	7112	Indirect	SINGLE			Engineering activities and related technical consultancy	100	0.25	0.25	0.25
74872	7410	Indirect	SINGLE	III.9	Interior Design	Specialized design activities	100	0.1	0.1	0.1
92521	9102	Indirect	SHARED	III.10	Museums	Museums activities	80	0.5	0.5	0.5
5111	4611	Indirect	SINGLE	IV.1	General Wholesale and Retailing	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	100	0.04521	0.04522	0.04845
5112	4612	Indirect	SINGLE			Agents involved in the sale of fuels, ores, metals and industrial chemicals	100	0.04521	0.04522	0.04845
5113	4613	Indirect	SINGLE			Agents involved in the sale of timber and building materials	100	0.04521	0.04522	0.04845
5114	4614	Indirect	SINGLE			Agents involved in the sale of machinery, industrial equipment, ships and aircraft	100	0.04521	0.04522	0.04845
5115	4615	Indirect	SINGLE			Agents involved in the sale of furniture, household goods, hardware and ironmongery	100	0.04521	0.04522	0.04845
5116	4616	Indirect	SINGLE			Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	100	0.04521	0.04522	0.04845
5117	4617	Indirect	SINGLE			Agents involved in the sale of food, beverages and tobacco	100	0.04521	0.04522	0.04845
5118	4618	Indirect	SINGLE			Agents specialized in the sale of other particular products	100	0.04521	0.04522	0.04845
5119	4619	Indirect	SINGLE			Agents involved in the sale of a variety of goods	100	0.04521	0.04522	0.04845
5141	4641	Indirect	SINGLE			Wholesale of textiles	100	0.04521	0.04522	0.04845

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
5143	4643	Indirect	SHARED			Wholesale of electrical household appliances	63.4	0.04521	0.04522	0.04845
5144	4644	Indirect	SINGLE			Wholesale of china and glassware and cleaning materials	100	0.04521	0.04522	0.04845
5145	4645	Indirect	SINGLE			Wholesale of perfume and cosmetics	100	0.04521	0.04522	0.04845
5146	4646	Indirect	SINGLE			Wholesale of pharmaceutical goods	100	0.04521	0.04522	0.04845
	4647	Indirect	SINGLE			Wholesale of furniture, carpets and lighting equipment	100	0.04521	0.04522	0.04845
	4648	Indirect	SINGLE			Wholesale of watches and jewelry	100	0.04521	0.04522	0.04845
5147	4649	Indirect	SINGLE			Wholesale of other household goods	100	0.04521	0.04522	0.04845
5181	4662	Indirect	SINGLE			Wholesale of machine tools	100	0.04521	0.04522	0.04845
5182	4663	Indirect	SINGLE			Wholesale of mining, construction and civil engineering machinery	100	0.04521	0.04522	0.04845
5183	4664	Indirect	SHARED			Wholesale of machinery for the textile industry and of sewing and knitting machines	60	0.04521	0.04522	0.04845
5186	4652	Indirect	SHARED			Wholesale of electronic and telecommunications equipment and parts	5	0.04521	0.04522	0.04845
5187	4669	Indirect	SINGLE		General Wholesale and Retailing (cont)	Wholesale of other machinery and equipment	100	0.04521	0.04522	0.04845
5188	4661	Indirect	SINGLE			Wholesale of agricultural machinery, equipment and supplies	100	0.04521	0.04522	0.04845
	4673	Indirect	SINGLE			Wholesale of wood, construction materials and sanitary equipment	100	0.04521	0.04522	0.04845
5190	4690	Indirect	SINGLE			Non-specialized wholesale trade	100	0.04521	0.04522	0.04845
5211	4711	Indirect	SINGLE			Retail sale in non-specialized stores predominantly selling food, beverages or tobacco	100	0.04521	0.04522	0.04845
5245	4754	Indirect	SINGLE			Retail sale of electrical household appliances in specialized stores	100	0.04521	0.04522	0.04845
52488	4719	Indirect	SINGLE			Other retail sale in non-specialized stores	100	0.04521	0.04522	0.04845
	4778	Indirect	SINGLE			Other retail sale of new goods in specialized stores	100	0.04521	0.04522	0.04845
5250	4779	Indirect	SHARED			Retail sale of second-hand goods in stores	90	0.04521	0.04522	0.04845
5261	4791	Indirect	SINGLE			Retail sale via mail-order houses	100	0.04521	0.04522	0.04845
5262	4789	Indirect	SINGLE			Retail sale via stalls and markets	100	0.04521	0.04522	0.04845
5263	4799	Indirect	SINGLE			Other non-store retail sale	100	0.04521	0.04522	0.04845

NACE Rev. 1.1	NACE Rev. 2	CONTRIBUTION	ATTRIBUTION	GC	Group	Name	Proportions	CR Factor 2008	CR Factor 2010	CR Factor 2012
6010	4920	Indirect	SINGLE	IV.2	General Transportation	Freight rail transport	100	0.04521	0.04522	0.04845
6010	4910	Indirect	SINGLE			Passenger rail transport, interurban	100	0.04521	0.04522	0.04845
6010	4931	Indirect	SINGLE			Urban and suburban passenger land transport	100	0.04521	0.04522	0.04845
6021	4939	Indirect	SINGLE			Other passenger land transport n.e.c.	50	0.04521	0.04522	0.04845
6022	4932	Indirect	SINGLE			Taxi operation	100	0.04521	0.04522	0.04845
6023	4939	Indirect	SINGLE			Other passenger land transport n.e.c.				
6024	4941	Indirect	SINGLE			Freight transport by road	100	0.04521	0.04522	0.04845
6110	5030	Indirect	SINGLE			Inland passenger water transport	100	0.04521	0.04522	0.04845
6120	5040	Indirect	SINGLE			Inland freight water transport	100	0.04521	0.04522	0.04845
6210	5110	Indirect	SINGLE			Passenger air transport	100	0.04521	0.04522	0.04845
	5121	Indirect	SINGLE			Freight air transport	100	0.04521	0.04522	0.04845
6220	5110	Indirect	SINGLE			Passenger air transport	100	0.04521	0.04522	0.04845
6311	5224	Indirect	SINGLE			Cargo handling	100	0.04521	0.04522	0.04845
6312	5210	Indirect	SINGLE			Warehousing and storage	100	0.04521	0.04522	0.04845
6321	5221	Indirect	SINGLE			Service activities incidental to land transportation	100	0.04521	0.04522	0.04845
6322	5222	Indirect	SINGLE			Service activities incidental to water transportation	100	0.04521	0.04522	0.04845
6323	5223	Indirect	SINGLE			Service activities incidental to air transportation	100	0.04521	0.04522	0.04845
6330	7911	Indirect	SINGLE			Travel agency activities	100	0.04521	0.04522	0.04845
6340	5229	Indirect	SINGLE			Other transportation support activities	100	0.04521	0.04522	0.04845
6411	5310	Indirect	SINGLE			Postal activities under universal service obligation	100	0.04521	0.04522	0.04845
6412	5320	Indirect	SINGLE			Other postal and courier activities	100	0.04521	0.04522	0.04845
6420	6110	Indirect	SINGLE	IV.3	Telephony and Internet	Wired telecommunications activities	100	0.04521	0.04522	0.04845
6420	6120	Indirect	SINGLE			Wireless telecommunications activities	100	0.04521	0.04522	0.04845
6420	6130	Indirect	SINGLE			Satellite telecommunications activities	100	0.04521	0.04522	0.04845
6420	6190	Indirect	SINGLE			Other telecommunications activities	100	0.04521	0.04522	0.04845

Annex 2 Gross Value Added of Copyright Industries, in 000 RSD

Group	2008	2010	2012
Press and literature	24,561,941	31,672,578	35,283,842
Music, theater, opera	6,102,917	4,960,565	8,303,133
Motion picture and video	1,328,137	1,640,146	1,867,446
Photography	260,013	647,615	1,107,885
Visual and graphic arts	1,024,497	856,960	925,844
Radio and TV	7,566,974	5,614,665	7,329,585
Software and databases	10,541,347	16,678,773	26,545,690
Advertising services	8,543,659	7,711,057	9,615,436
Collective societies	94,334	105,353	118,374
Core Total	60,023,819	69,887,714	91,097,234
TV sets, radios, VCRs, [...] and other similar equipment	2,867,455	3,762,137	4,816,579
Computers and equipment	8,711,036	7,447,522	8,373,687
Photocopiers	124,697	552,067	514,113
Musical instruments	7,546	14,694	4,211
Photographic and cinematographic instruments	854,512	629,465	697,834
Blank recording material	2,415	7,385	3,149
Paper	2,090,958	2,216,623	2,585,143
Interdependent Total	14,658,619	14,629,892	16,994,716
Apparel, textiles and footwear	219,914	230,149	257,867
Jewelry and coins	218,028	276,340	294,869
Other crafts	692,768	614,314	653,344
Furniture	632,963	643,065	710,754
Household goods, china and glass	38,851	37,337	31,136
Wall coverings and carpets	19,063	7,036	9,698
Toys	114,030	128,738	78,848
Architecture, engineering, surveying	4,377,346	3,028,372	3,769,685
Interior design	-	120	2,656
Museums	1,089,887	593,954	685,107
Partial Total	7,402,851	5,559,424	6,493,963
General wholesale and retailing	7,201,171	7,360,078	9,801,447
General transportation	4,809,774	4,751,974	6,507,990
Telephony and internet	3,135,243	3,548,431	4,471,318
Non-dedicated Support Total	15,146,187	15,660,482	20,780,755
TOTAL CBIs	97,231,477	105,737,513	135,366,668

Copyright-based Industries, Share in Total CBO Contribution to GVA, %

Group	2008	2010	2012
Press and literature	25.3%	30.0%	26.1%
Music, theater, opera	6.3%	4.7%	6.1%
Motion picture and video	1.4%	1.6%	1.4%
Photography	0.3%	0.6%	0.8%
Visual and graphic arts	1.1%	0.8%	0.7%
Radio and tv	7.8%	5.3%	5.4%
Software and databases	10.8%	15.8%	19.6%
Advertising services	8.8%	7.3%	7.1%
Collective societies	0.1%	0.1%	0.1%
Core Total	61.7%	66.1%	67.3%
TV sets, radios, VCRs, [...] and other similar equipment	2.9%	3.6%	3.6%
Computers and equipment	9.0%	7.0%	6.2%
Photocopiers	0.1%	0.5%	0.4%
Musical instruments	0.0%	0.0%	0.0%
Photographic and cinematographic instruments	0.9%	0.6%	0.5%
Blank recording material	0.0%	0.0%	0.0%
Paper	2.2%	2.1%	1.9%
Interdependent Total	15.1%	13.8%	12.6%
Apparel, textiles and footwear	0.2%	0.2%	0.2%
Jewelry and coins	0.2%	0.3%	0.2%
Other crafts	0.7%	0.6%	0.5%
Furniture	0.7%	0.6%	0.5%
Household goods, china and glass	0.0%	0.0%	0.0%
Wall coverings and carpets	0.0%	0.0%	0.0%
Toys	0.1%	0.1%	0.1%
Architecture, engineering, surveying	4.5%	2.9%	2.8%
Interior design	0.0%	0.0%	0.0%
Museums	1.1%	0.6%	0.5%
Partial Total	7.6%	5.3%	4.8%
General wholesale and retailing	7.4%	7.0%	7.2%
General transportation	4.9%	4.5%	4.8%
Telephony and internet	3.2%	3.4%	3.3%
Non-dedicated Support Total	15.6%	14.8%	15.4%
TOTAL CBIs	100.0%	100.0%	100.0%

CBIs' Number of Employees

CBIs	2008	2010	2012
Press and literature	31,181	27,589	25,584
Music, theater, opera	5,195	6,273	5,868
Motion picture and video	1,440	1,971	1,575
Photography	841	2,284	1,443
Visual and graphic arts	674	1,139	969
Radio and TV	6,809	5,630	5,140
Software and databases	8,122	8,210	11,455
Advertising services	6,753	6,287	5,925
Collective societies	93	113	113
Core Total	61,109	59,497	58,071
TV sets, radios, VCRs, [...] and other similar equipment	3,693	3,359	2,900
Computers and equipment	6,166	5,140	4,585
Photocopiers	99	347	270
Musical instruments	23	52	24
Photographic and cinematographic instruments	1,124	934	722
Blank recording material	8	9	6
Paper	2,399	1,478	1,250
Interdependent Total	13,513	11,320	9,758
Apparel, textiles and footwear	540	460	444
Jewelry and coins	691	725	655
Other crafts	1,260	1,088	1,025
Furniture	1,309	1,200	1,064
Household goods, china and glass	75	54	42
Wall coverings and carpets	9	6	3
Toys	103	81	76
Architecture, engineering, surveying	4,032	2,971	3,248
Interior design	-	1	8
Museums	750	760	753
Partial Total	8,768	7,345	7,317
General wholesale and retailing	9,922	9,463	8,564
General transportation	5,726	5,001	5,964
Telephony and internet	709	724	819
Non-dedicated Support Total	16,356	15,188	15,347
TOTAL EMPLOYMENT – CBI	99,746	93,309	90,493

Annex 3 Trade in Services Exports and Imports

(unadjusted for copyright factor), EUR million

Services	Exports					
	2008		2010		2012	
	Mill euros	Share in total	Mill euros	Share in total	Mill euros	Share in total
Communication services						
Telecommunication services	82.16	3.00%	112.73	4.23%	151.59	4.90%
Computer services	96.19	3.51%	126.84	4.76%	221.29	7.16%
Information services	0.00	0.00%	0.00	0.00%	2.03	0.07%
Royalties and License Fees						
Licenses, patents, trademarks and other IPR	18.35	0.67%	28.91	1.08%	21.90	0.71%
Franchising	0.35	0.01%	0.24	0.01%	0.68	0.02%
Fees for the use of products protected with IPR	0.0	0.00%	0.00	0.00%	4.86	0.16%
Personal, Cultural and Recreational Services						
Audiovisual services (film, video, radio and TV related)	12.00	0.44%	18.86	0.71%	24.31	0.79%
Sport, recreation, fees and similar	32.12	1.17%	52.09	1.95%	52.82	1.71%
Cultural services – museums, libraries ...	3.11	0.11%	3.70	0.14%	13.42	0.43%
Other business services – health services	0.00	0.00%	0.00	0.00%	5.18	0.17%
Science and education services	0.00	0.00%	0.00	0.00%	12.30	0.40%
Total CBI	244.28	8.91%	343.37	12.87%	510.38	16.51%

Services	Imports					
	2008		2010		2012	
	mill euros	share in total	mill euros	share in total	mill euros	share in total
Communication services						
Telecommunication services	75.02	2.56%	79.98	3.01%	115.43	3.93%
Computer services	138.22	4.72%	135.24	5.09%	149.28	5.08%
Information services	0.00	0.00%	0.00	0.00%	2.4	0.08%
Royalties and License Fees						
License, patents, trademarks and other IPR	124.37	4.25%	109.87	4.13%	87.63	2.98%
Franchising	8.15	0.28%	7.56	0.28%	10.11	0.34%
Fees for the use of products protected with IPR	0	0.00%	0	0.00%	38.42	1.31%
Personal, Cultural and Recreational Services						
Audiovisual services (film, video, radio and TV related)	32.16	1.10%	40.79	1.53%	37.91	1.29%
Sport, recreation, fees and similar	11.89	0.41%	8.85	0.33%	9.35	0.32%
Cultural services – museums, libraries ...	6.76	0.23%	6.62	0.25%	8.3	0.28%
Other business services – health services	0	0.00%	0	0.00%	2.4	0.08%
Science and education services	0	0.00%	0	0.00%	1.82	0.06%
Total	396.57	13.55%	388.91	14.62%	463.05	15.76%

Source: National Bank of Serbia

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