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*Calculating the Economic Contribution of Copyright-
Based Industries to GDP*

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Azerbaijan Competitiveness and Trade (ACT) Project

Calculating the Economic Contribution of Copyright- Based Industries to GDP

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The author's views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

Acronyms and Abbreviations

BEA	United States Department of Commerce Bureau of Economic Analysis
GDP	Gross Domestic Product
GNP	Gross National Product
GTAP	Global Trade Analysis Project
IMF	International Monetary Fund
IIPA	International Intellectual Property Alliance:
AAP	Association of American Publishers
BSA	The Business Software Alliance
ESA	Entertainment Software Association
IFTA	Independent Film & Television Alliance
MPAA	Motion Picture Association of America
NMPA	National Music Publishers' Association
RIAA	Recording Industry Association of America
ISIC	International Standard Industrial Classification of All Economic Activities
NACE	European Classification Codes
NAICS	North American Industry Classification Systems
OECD	Organization for Economic Co-operation and Development
SNA	System of National Accounts
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UNESCO	United Nations Educational, Scientific and Cultural Organization
VAT	Value Added Tax
WIPO	World Intellectual Property Organization

Calculating the Economic Contribution of Copyright-Based Industries to GDP

The Republic of Azerbaijan recently amended its copyright law regime to bring it into greater conformity with the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). As part of that effort, the Azerbaijan Copyright Agency requested assistance in understanding best practices for calculating the percentage of the nation's Gross Domestic Product (GDP) attributable to copyright-based industries, with a special focus on the methods and procedures used by the U.S. in determining its publicly-reported copyright contribution data. The purpose of this inquiry is to facilitate Azerbaijan's obtaining similar GDP data to measure the significant contribution to the Azerbaijan national economy made by copyright-based industries in order to better inform decision-makers about the importance of those industries for the nation's economic development.

Products and services related to copyrights have recently been a rapidly growing part of the world economy. These industries, also called the creative or information sector, have grown steadily in income and importance in the last few decades. The World Intellectual Property Organization (WIPO) in its Guide on Surveying the Economic Contribution of the Copyright-Based Industries (WIPO Guidelines)¹ notes that year-over-year data comparisons in copyright contribution reports published in the last decade for a significant number of countries (including the United States) have shown that copyright-related industries:

- i. have growth at consistently higher levels than reported for overall economies,
- ii. were an increasing proportion of foreign trade, and
- iii. have had higher employment rates than for the rest of the economy as a whole.

These reports are collected in the three volumes of the WIPO National Studies on Assessing the Economic Contribution of the Copyright-Based Industries (WIPO National Studies) which include information on the percentage of economic contribution from copyright-based industries to overall GDP. For the purposes of this paper, only the portion of the WIPO Guidelines dealing with the GDP calculations will be addressed but it should be noted that the country reports published under the WIPO Guidelines also analyze the contribution of copyright-based industries to foreign trade and employment rates.

¹ Available at: http://www.wipo.int/export/sites/www/ip-development/en/creative_industry/pdf/893.pdf

The U.S.-based trade association coalition, the International Intellectual Property Alliance (IIPA),² has been issuing reports on the economic contribution of U.S. copyright-based industries to the U.S. economy since 1990 (IIPA Contribution Reports). In the most recent Contribution Reports (the last was released in July of 2009), the value added by U.S. copyright-based industries to the U.S. GDP hovered around 11% for each of the years 2003 to 2007.³ The IIPA Contribution Reports for these years use the methodology outlined in the WIPO Guidelines. What follows herein is a description of how the U.S. calculates its total GDP and of the WIPO Guidelines methodology that the U.S. and at least a dozen other nations have used to report the contribution of their copyright-based industries to their overall GDP.⁴ This will include details on which specific industries the WIPO Guidelines (and thus the IIPA Contribution Reports for the U.S.) label as ‘copyright-based’ and therefore included in GDP percentage calculations.

GDP: Real versus Current-Dollar

One of the most frequently cited measures of economic activity; GDP is a measure of all final output of both goods and services created by productive activities in a certain country. The WIPO Guidelines define output-based GDP as “the sum of the gross values added of all resident producers at producers’ prices, plus taxes less subsidies on imports, plus all non-deductible VAT or similar taxes.” The U.S. Department of Commerce Bureau of Economic Analysis (BEA) reports on the U.S. GDP which it define as the value of final goods and services produced (but not necessarily yet sold) by labor and property located within the United States.⁵ U.S. GDP does not include services such as the personal care of one’s children or unpaid volunteer work for non-profits. It also does not include illegal or black-market products, or products and services created in other countries by U.S. nationals.

Contrast GDP with another common economic measure, Gross National Product (GNP), which BEA defines as including goods and services produced by labor and property of U.S. residents (including beyond the borders of the U.S.). Under the BEA method, GDP includes (and GNP excludes) production attributable to both the labor and property of foreign residents located in the U.S. and to the return on investments located within the U.S. of foreign residents. Conversely, GNP includes (and GDP excludes) production attributable to both the labor and property supplied by U.S. residents located outside the U.S., and to the return to U.S. residents on investments located outside the U.S.

² Formed in 1984, the seven trade associations representing more than 1900 US companies that make up the IIPA are: the Association of American Publishers (AAP), the Business Software Alliance (BSA), the Entertainment Software Association (ESA), the Independent Film & Television Alliance (IFTA), the Motion Picture Association of America (MPAA), the National Music Publishers’ Association (NMPA) and the Recording Industry Association of America (RIAA).

³ 2003: 11.06%; 2004: 11.18%; 2005: 11.02%; 2006: 11.04%; 2007: 11.05%.

⁴ The nations included in the three volumes of the WIPO National Studies on Assessing the Economic Contribution of the Copyright-Based Industries are: Volume 1 - Canada, Hungary, Latvia, Singapore, United States; Volume 2 - Philippines, Mexico, Jamaica, Bulgaria, Lebanon; Volume 3 - Colombia, Romania, Croatia, Russia and Ukraine.

⁵ BEA Concepts and Methods of the U.S. National Income and Product Accounts, available at: <http://www.bea.gov/national/pdf/NIPAhandbookch1-4.pdf>

When BEA published a U.S. GDP report, it lists the data in current dollars which the actual dollar amount for that year. However, when showing economic comparisons over time, BEA uses the ‘Real’ (or Constant) GDP number. This is a number that has been adjusted to compensate for changes in the value of money over time due to inflation or deflation. Real/Constant Dollar amounts are pegged to a specific year for comparison (for example, year 2009 GDP in terms of year 2005 U.S. dollars). When an IIPA Contribution Report using BEA data shows what percentage of the GDP comes from value added by copyright-based industries, the number is in current dollars. When the report lists year-over-year changes in this value added (to show growth), the number has been adjusted into Real/Constant Dollars against a comparison year. For example, the IIPA Contribution Report issued in 2009 states that the value added to U.S. GDP by total copyright-based industries was 1.52 trillion. This was 11.05% of the then-reported total U.S. GDP for 2007 which was \$13.87 trillion (since updated in the BEA database to \$14.062 trillion, an excerpt of which appears at **Table 1** below). However, when that same report discussed the growth of copyright-based industries, it used Real/Constant Dollars to measure changes in value added over time meaning the current dollar value was converted into dollars adjusted to the base of year 2000.

Table 1

2001-2010 U.S. GDP: Current-Dollar and ‘Real/Constant’ in 2005 Dollars ⁶					
Year	GDP in Billions of Current US\$	GDP in Billions of 2005 US\$	Year	GDP in Billions of Current US\$	GDP in Billions of 2005 US\$
2001	10,286.2	11,347.2	2006	13,398.9	12,976.2
2002	10,642.3	11,553.0	2007	14,061.8	13,228.9
2003	11,142.1	11,840.7	2008	14,369.1	13,228.8
2004	11,867.8	12,263.8	2009	14,119.0	12,880.6
2005	12,638.4	12,638.4	2010	14,660.4	13,248.2

Categorizing Copyright-Based Industries under the WIPO Guidelines

A challenging stage of determining the economic contribution of copyright-based industries is identifying which economic activities within a nation are in fact copyright-based, (meaning they include either the creation, production, distribution, marketing or consumption of copyright-related products or services) and then placing those industries into one of the four categories listed WIPO Guidelines (explained below).

The first part of this task will involve use of either a national, regional and international industry classification systems for managing and categorizing economic data by type of business establishment or type of goods and services produced. For example, the U.S. (and thus the

⁶ BEA US National Economic Accounts: <http://www.bea.gov/national/index.htm#gdp> GDP data is available at: <http://www.bea.gov/national/xls/gdplev.xls>

authors of the IIPA Contribution Reports) uses the regional North American Industry Classification Systems (NAICS) to categorize the U.S. copyright-based industries. On the other hand, the WIPO Guidelines use codes set forth under the United Nations economic data classification system known as the International Standard Industrial Classification of All Economic Activities (ISIC). The most recent revision of NAICS occurred in 2007 while ISIC was revised in 2008 (Revision 4).⁷ The IIPA Contribution Report published in 2004 contained in its Appendix C a helpful table showing how the NAICS categories used in that report translated into ISIC categories but since that report pre-dates the most recent revisions of both NAICS and ISIC, it is now somewhat out-dated.

One possible starting point for determining which of Azerbaijan's industries should be included in this effort is a review of which industries other countries have included in their WIPO National Study reports. Annex 1 to this paper shows which copyright-based industries were included in the WIPO National Studies reports of five sample countries (United States, Colombia, Ukraine, Romania and Bulgaria). For example, the authors of some WIPO National Studies (such as Bulgaria) did not include income from large state-supported cultural institutions such as the national television, radio, theatres or museums. Further investigation through consultation with copyright industry groups and interviews with copyright industry representatives will be required as well. This may be done in conjunction with determining each industry's 'Copyright Factor (described below in **Adjustments to Data**).

In addition to industry-by-industry categorization, the WIPO Guidelines divide copyright-based industries into four broad categories: Core, Interdependent, Partial and Non-Dedicated. As of the 2004 report, the IIPA Contribution Report authors have adopted this method so there is current alignment between the U.S. reports and other WIPO Guidelines-based country reports. The annex to the WIPO Guidelines contain a list of copyright-based industries, as well as cross-referencing tables of copyright-related economic activities comparing the European Classification Codes (NACE) to ISIC (Rev 3.1 at the time). It is permitted to include the same industry code in more than one of the four WIPO categories if the values are divided up appropriately and not double-counted.

The Four WIPO Categories

1. Core Copyright

Core Copyright Industries are defined in the WIPO Guidelines as those which are "wholly engaged in the creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter." These are industries that could not exist or would be fundamentally different without copyrights. For this reason, 100% of the value added by these industries is considered the

⁷ 2007 NAICS can be found at: <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007> and Rev.4 structure and explanations can be found at: <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27&Lg=1>

contribution by copyright-related industries to the national economy. In general, this does not include infrastructure or educational institution publications and research material. The WIPO Guidelines break down the Core Copyright Industries into the nine subgroups listed in **Table 2** below.

Table 2

WIPO Guidelines Breakdown of Nine Core Copyright Industries	
1. Press & Literature	<ul style="list-style-type: none"> • Authors, writers, translators; • Newspapers; • News and feature agencies; • Magazines/periodicals; • Book publishing; • Cards and maps; • Directories and other published materials; • Pre-press, printing, and post-press of books, magazines, newspapers; • Advertising materials; • Wholesale and retail of press and literature (book stores, newsstands); • Libraries.
2. Music, Theatrical Productions, Operas	<ul style="list-style-type: none"> • Composers, lyricists, arrangers, choreographers, directors, performers and other personnel; • Printing and publishing of music; • Production/manufacturing of recorded music; • Wholesale and retail of recorded music (sale and rental); • Artistic and literary creation and interpretation; • Performances and allied agencies (booking agencies, ticket agencies).
3. Motion Picture & Video	<ul style="list-style-type: none"> • Writers, directors, actors etc.; • Motion picture and video production and distribution; • Motion picture exhibition; • Video rentals and sales, including video on demand; • Allied services.
4. Radio & Television	<ul style="list-style-type: none"> • National radio and television broadcasting companies; • Other radio and television broadcasters; • Independent producers; • Cable television (systems and channels); • Satellite television; • Allied services.
5. Photography	<ul style="list-style-type: none"> • Studios and commercial photography; • Photo agencies and libraries (not photo-finishing labs).
6. Software & Databases	<ul style="list-style-type: none"> • Programming, development and design; • Manufacturing, wholesale & retail pre-packaged software (business programs, video games, educational programs etc.); • Database processing and publishing.
7. Visual & Graphic Arts	<ul style="list-style-type: none"> • Artists; • Art galleries and other wholesale and retail; • Picture framing and other allied services; • Graphic design.
8. Advertising Services	<ul style="list-style-type: none"> • Agencies, buying services (not including the price of advertising).
9. Copyright Collective Management Societies	<ul style="list-style-type: none"> • [Do not include turnover].

2. *Interdependent Copyright Industries*

Interdependent Copyright Industries are defined by the WIPO Guidelines as those industries “engaged in production, manufacture and sale of equipment whose function is wholly and primarily to facilitate the creation, production or use of works and other protected subject matter.” The WIPO Guidelines further split this category into:

- i. Core Interdependent: industries with products jointly consumed with products of Core Copyright Industries (also described as copyright hardware) such as television, radios, video cassette recorders, cassette CD and DVD players, video game equipment, computers and musical instruments.
- ii. Partial Interdependent: industries producing products and services with some copyright material (but less than for those in the Core Interdependent category) and, while not existing primarily to perform copyrighted works, they do facilitate their use. This could include one part of multi-purpose devices that have uses other than for copyrighted works such as in the case of photocopiers, paper, blank recording material and photographic and cinematographic instruments.

3. *Partial Copyright Industries*

Partial Copyright Industries are defined by the WIPO Guidelines as those 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.” Special care to accurately placing industries in this category is necessary as many may have significant portions of their value that is not related to copyrighted works (for example, as architectural services) and some may enjoy a higher level of protection from country to country (such as industrial design). The ten-industry breakdown for this category under the WIPO Guidelines is listed in **Table 3** below.

Table 3

WIPO Partial Copyright Industries	
1. Apparel, textiles, and footwear	6. Wall coverings and carpets
2. Jewelry and coins	7. Toys and games
3. Crafts	8. Architecture, engineering & surveying
4. Furniture	9. Interior design
5. Household goods, china & glass	10. Museums.

4. *Non-Dedicated Copyright Industries*

Non-Dedicated Copyright Industries are defined in the WIPO Guidelines as those 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 are generally business services and methods of delivery. The WIPO Guidelines include in this category i) wholesale/retail, ii) transportation and iii) telephony and internet.

For examples of how to divide copyright-based industries into the four WIPO Guidelines categories, see Annex 1 which shows how five sample countries have done this for their WIPO National Studies reports. Furthermore, additional country reports that may serve as more templates are available from the WIPO website.

Source of the 12% U.S. Copyright Contribution Number

The IIPA Contribution Report published in 2004 shows numbers of 12.82%, 11.95% and 11.97% for copyright industry value added contributions to GDP for the years 1997, 2001 and 2002. However, the 2002 number has since been revised downward to 11.06%. The authors of the 2006 IIPA Contribution Report explained that they had historically relied heavily upon BEA information and were at times required to use estimates when detailed BEA input-out data were not available by applying input-output factors to industry revenue data from other government sources. However, after the 2004 IIPA Contribution Report was published, BEA issued detailed input-output reports, reducing the need for the use of estimates in the following IIPA Contribution Reports. The next report issued by IIPA replaced 11.97 with 11.06% for 2002. Therefore it seems that the 12% number for the U.S. copyright-based industry contribution to the U.S. GDP no longer represents a current number published in an IIPA Contribution Report following the WIPO Guidelines.

Measuring the Contribution of Copyright-Related Industries to National GDP

Sources and Types of Data

1. WIPO Guidelines

To achieve maximum relevance, usability and credibility for copyright-based economic contribution numbers, the WIPO Guidelines recommends that data used for WIPO National Studies on copyright-based industry contributions to national GDP should:

- i. come from sources expected to be produced regularly,
- ii. be internally consistent,
- iii. use international standards (such as ISIC) and
- iv. be comparable over time, not only internally but across countries and economic fields.

There are several possible sources for relevant economic data. A primary source in many National Studies is data produced by national statistical departments and tax agencies. One of the most preferred and useful forms of economic data are input-output tables following the UN

System of National Accounts (SNA). Input-output tables are created through surveys of industries to determine the source of their inputs, and are arranged by standard industry classifications.

Particularly good sources of data are international statistics agencies such as the UN (using ISIC), UNESCO, World Bank and The International Monetary Fund (IMF). In many cases however, the data used for reports on Azerbaijan by these agencies maybe have come from the Azerbaijan National Statistical Office in the first place which should be one of the first sources for data sought. In addition, several global regions publish their own statistical data, such as various European Communities (using the European System of Accounts which is compatible with ICIS) and The Organization for Economic Co-operation and Development (OECD). Other sources of economic statistical data are sector statistics on groups of industries (such as for the software or music) which at times may be gathered by industry groups such as the IIPA, as well as other supplementary data from professional organizations, banks or the Global Trade Analysis Project (GTAP).

2. IIPA Contribution Report U.S. Data Sources

IIPA Contribution Reports use several data sources, both from the U.S. government and from supplemental sources, primarily industry groups. The government sources include the Economic Report of the President and the U.S. Department of Labor, and rely heavily on the U.S. Department of Commerce U.S. Census Bureau, BEA Industry Economic Accounts ‘Value Added by Industry’ and BEA input-output reports and analyses. The Business Software Alliance (BSA) and Motion Picture Association of America (MPAA), (both members of the IIPA), the Motion Picture Association, International Data Corporation and International Federation for the Phonographic Industry also all provided supplemental data for the reports. In earlier IIPA Contribution Reports missing or late value added data from specific industries was filled-in by the authors through applying historical input-output factors to more current data on industry sales. More recently however, IIPA Contribution Reports have used industry specific valued added estimates provided by BEA for that information.

The WIPO Guidelines Methodology

The next step per the WIPO Guidelines is to measure the contribution from the relevant industries to the overall economy. While there are various ways to measure this (for example, value of assets, expenditures, revenues or net profit), the output method that measures the value added to GDP has become the common method for the WIPO National Studies (and is detailed in Section 5 and 6 of the WIPO Guidelines). Value added is the difference between a company’s sales and its intermediate purchases of materials and services from other firms and is equal to the contribution of labor and capital to the company’s sales. The WIPO Guidelines note that for calculations, the use value is assigned the purchaser’s price, while production costs are assigned basic prices. One reason this method is the generally preferred one is that useful data is usually

more available and often already industry-centered as compared with data for other methods of calculating GDP.

The value added method is used in the IIPA Contribution Reports for the U.S. The authors of those studies relied heavily upon BEA current and Real/Constant dollar value added by industry data. A detailed explanation of the BEA's methodology for calculating its input-output tables is contained in its publication: *Concepts and Methods of the U.S. Input-Output Accounts*, updated in April 2009.⁸

An advantage to using the output/value added method is that value added input-output tables are already available for many countries such as in the case of the BEA input-output data for the U.S. A disadvantage is that the effort required to produce input-output tables means that they are often issued sporadically (e.g. every five years) and with several years' delay. On the other hand, regional input-output tables can be used. Furthermore, there is the possibility of creating new input-output tables using the existing GTAP database as an alternative or supplemental source.

Adjustments to Data - The Copyright Factor

It may be necessary to make some adjustments to the contribution calculations. One that is certain to be required is an adjustment to assign the portion of value added attributable to copyrights per copyright-based industry for all of the non Core-Copyright Industries. For these industries, it is necessary to subtract the portions of economic activity that are not based on copyrights through the use of a 'Copyright Factor.' Under the WIPO Guidelines, the Copyright Factor is defined as the "percentage indicating the portion of a particular activity/industry that can be attributed to copyright-based activities; also level of dependence on *copyright* material; sometimes referred to as *weighting*." This adjustment will likely require significant time and resources. Comparisons and reviews of WIPO National Studies reports by countries that have done this weighting and that have similar legal regimes and economic and industry structures may be very useful. As an example, the 2004 Report on The Economic Contribution of Copyright-Based Industries in Singapore provides a detailed discussion of how the Copyright Factor was determined for that report.⁹ After conducting surveys and interviews with industry representatives, the authors found Copyright Factors, depending on the specific subcategory, from:

- i. 25 to 35% for Interdependent Copyright Industries,
- ii. a low of 0.4% for apparel, textiles and footwear up to a high of 42% for other crafts and toys and games for Partial Copyright Industries, and
- iii. 5 to 6.4% for Non-Dedicated Support Industries.

⁸ Full text available at: http://www.bea.gov/papers/pdf/IOmanual_092906.pdf

⁹ Full text of the report, including Table VIC.6 'Copyright Factors for Non-Core Copyright Industries 198602001, is available at: http://www.wipo.int/export/sites/www/ip-development/en/creative_industry/pdf/ecostudy-singapore.pdf

In addition, sampling, surveys and consultation with representatives of the individual industries will also be a source of information on finding the Copyright Factor. If no data is available, use of estimates or assumptions may be permissible with proper notation in the resulting reports. In any case, the WIPO Guidelines recommend being conservative here, noting that the risk of understating the contribution of non-Core Copyright Industries is offset through maintaining credibility.

For an alternative approach on determining the Copyright Factor using a simplified method whereby researchers apply one factor to all non-Core Copyright industries (rather than Copyright Factors for each category), see Richard Watt's 'A Comment: The Copyright Factors.'¹⁰

Conclusion

The copyright-based economic sector is increasingly important in today's world. WIPO National Studies for more than a dozen nations have shown that, on average, the copyright-based economic sector has higher growth rates than for the rest of a nation's economy. This has been especially true for the U.S. in the last two decades where, according to the IIPA Contribution Report published in 2009, the real annual growth rate for copyright-based industries for each of 2004, 2005, 2006 and 2007 has been more than twice that for the rest of the U.S. economy. In fact, in 2006 to 2007, copyright-based industries made up a remarkable 43.06% of the Real Dollar growth for the U.S. economy.

Considering the continued growth potential of the copyright-based industry sector globally, it is understandable that the Republic of Azerbaijan wishes to determine the extent of the contribution to the Azerbaijan national economy from its copyright-based industries so as to better inform decision-makers about the importance of this sector for the nation's continued economic development. Undertaking this effort will require substantial resources and time and the need to engage economic experts. Fortunately since more than a dozen nations, including other former Soviet Republics such as Russia and Ukraine, have already undertaken this project using the WIPO Guidelines, there are now many experts and a fount of source material from previous WIPO National Studies reports available for use and assistance.

¹⁰ Review of Economic Research on Copyright Issues, 2004, vol. 1(1), pp. 71-78. PDF available at <http://www.serci.org/docs/comment.pdf>

Annex 1

Copyright-Based Industry Lists Included in Five WIPO National Studies

- United States (2004), Colombia (2008), Ukraine (2008), Romania (2008), Bulgaria (2007) -

(*n.e.c. - not elsewhere classified)

UNITED STATES

Report: The Economic Contribution of Copyright-Based Industries in the United States, 2004 Appendix C - Rev. 3 ISIC Summary Category Codes Included in the Calculation

Core Copyright Industries

2211 Publishing of Books, Brochures & Other Publications
2212 Publishing of Newspapers, Journals & Periodicals
2213 Publishing of Music
2219 Other Publishing
2221 Printing
2222 Services Activities related to Printing
2230 Reproduction of Recorded Media
5139 Wholesale of Other Household Goods
5151 Wholesale of Computers, Computer Peripheral Equipment & Software
5233 Retail Sale of Household Appliances, Articles & Equipment
5239 Other Retail Sale in Specialized Stores
6420 Telecommunications
7130 Renting of Personal & Household Goods n.e.c.
7221 Software Publishing
7229 Other Software Consultancy & Supply
7230 Data Processing
7240 Database Activities & On-line Distribution of Electronic Content
7430 Advertising
7494 Photographic Activities
7499 Other Business Activities n.e.c [for Transportation & Interpretation]
9112 Activities of Professional Organizations
9211 Motion Picture & Video Production & Distribution
9212 Motion Picture Projection
9213 Radio & Television Activities
9214 Dramatic Arts, Music & Other Activities
9219 Other Entertainment Activities n.e.c.
9220 New Agency Activities
9231 Library & Archives Activities
9249 Other Recreational Activities

Interdependent Copyright Industries

2101 Manufacture of Pulp, Paper, & Paperboard
2429 Manufacture of Other Chemical Products n.e.c.
3000 Manufacture of Office, Accounting, & Computing Machinery
3230 Manufacture of Television & Radio Receivers, Sound or Video Recording or Reproducing Apparatus, & Associated Goods
3320 Manufacture of Optical Instruments & Photographic Equipment
3692 Manufacture of Musical Instruments
5139 Wholesale of Other Household Goods
5149 Wholesale of Other Intermediate Products, Waste & Scrap

5151 Wholesale of Computers, Computer Equipment & Software
5152 Wholesale of Electronic & Telecommunications Parts & Equipment
5159 Wholesale of Other Machinery, Equipment, & Supplies
5233 Retail Sale of Household Appliances, Articles & Equipment
5239 Other Retail Sales in Specialized Stores
7123 Renting of Office Machinery & Equipment (Including Copiers)
7129 Renting of Other Machinery & Equipment, n.e.c.
7130 Renting of Personal & Household Goods, n.e.c.

Partial Copyright Industries

173 Manufacture of Knitted & Crocheted Fabrics & Articles
1721 Manufacture of Made-Up Textile Materials
1722 Manufacture of Carpets & Rugs
1810 Manufacture of Wearing Apparel
1920 Manufacture of Footwear
2029 Manufacture of Other Products of Wood
2109 Manufacture of Other Articles of Paper & Paperboard
2610 Manufacture of Glass & Glass Products
2899 Manufacture of other Fabricated Metal Products n.e.c.
3610 Manufacture of Furniture
3691 Manufacture of Jewelry & Related Articles
3694 Manufacture of Games & Toys
5131 Wholesale of Textiles, Clothing & Footwear
5139 Wholesale of Other Household Goods
5232 Retail Sale of Textiles, Clothing, Footwear & Leather Goods
5233 Retail Sales of Household Appliances, Articles & Equipment
5239 Other Retail Sale in Specialized Stores
7130 Renting of Personal & Household Goods n.e.c.
7421 Architectural & Engineering Activities & Related Technical Consultancy
7499 Other Business Activities n.e.c. (for Translation & Interpretation)
9199 Activities of Other Membership Organizations n.e.c.
9232 Museums Activities & Preservation of Historical Sites & Buildings

Non-Dedicated Support Industries

61 Water Transport
62 Air Transport
511 Wholesale on a Fee or Contract Basis
513 Wholesale of Household Goods
515 Wholesale of Machinery, Equipment & Supplies
519 Other Wholesale
521 Non-Specialized Retail Trade in Stores
523 Other Retail Trade of New Goods in Specialized Stores
525 Retail Trade Not in Stores
601 Transport Via Railways
602 Other Land Transport
6301 Cargo Handling
6302 Storage & Warehousing
6304 Activities of Travel Agencies & Tour Operators, Tourist Assistance Activities n.e.c.
6309 Activities of Other Transport Agencies
6411 National Post Activities
6412 Courier Activities Other than National Post Activities
6420 Telecommunications
7240 Database Activities & On-Line Distribution of Electronic Equipment

COLOMBIA

Report: The Economic Contribution of Copyright-Based Industries in Colombia, 2008 Annex 1 - International Standard Industrial Classification (ISIC) [Rev.3] of Copyright-Based Industries (CBI) adapted for Colombia

Core Copyright Industries

2211 Publishing of books, brochures and other publications
2212 Publishing of newspapers, journals and periodicals
2213 Music publishing
2219 Other publishing
2220 Printing
2231 Art, design and composition
2232 Photo mechanic and related services
2233 Binding of printed sheets
2234 Finishing and laminating
2239 Other publishing-related services n.e.c.
5239 Other retail sales in specialized stores
7210 Consultancy on information systems
7220 Production of information software
7230 Data processing
7430 Advertising
7494 Photographic activities
9112 Activities of professional organizations
9211 Motion picture and video production and distribution
9212 Motion picture projection
9213 Radio and television activities
9214 Dramatic arts, music and other arts activities
9219 Other entertainment activities n.e.c.
9220 News agency activities
9231 Library and archive activities
9249 Other recreational activities

Interdependent Copyright Industries

2101 Manufacture of pulp, paper and paperboard
2109 Manufacture of other articles of paper and paperboard
2429 Manufacture of other chemical products n.e.c
3000 Manufacture of office, accounting and computing machinery
3210 Manufacture of capacitors except fixed and variable electronic capacitors
3220 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
3230 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods.
3320 Manufacture of optical instruments and photographic equipment
3692 Manufacture of musical instruments
5237 Wholesale of office, accounting and computing machinery
5244 Retail sale of books, newspapers, magazines, office supplies in specialized stores
7123 Renting of office machinery and equipment (including computers)
7129 Renting of other machinery and equipment n.e.c.

Partial Copyright Industries

1720 Manufacture of made-up textile articles
1750 Manufacture of knitted and crocheted fabrics and articles
1810 Manufacture of wearing apparel
1921 Manufacture of footwear with uppers of leather, other than sports footwear
1922 Manufacture of footwear with uppers of textile materials, other than sports footwear
1923 Manufacture of footwear with outer soles and uppers of rubber, other than waterproof footwear, sports footwear
1924 Manufacture of footwear with outer soles and uppers of plastics, other than waterproof footwear, sports footwear
1925 Manufacture of sports footwear, except skating boots
1929 Manufacture of footwear n.e.c.
2020 Manufacture of other wood products
2030 Builders' joinery and carpentry
2040 Packing cases, boxes, crates, drums and similar wood packaging
2090 Other wood products; articles of cork plaiting materials and straw
2610 Manufacture of glass and glass products
2899 Manufacture of other fabricated metal products n.e.c.
3611 Manufacture of furniture for households
3612 Manufacture of furniture for offices
3613 Manufacture of furniture for trade and services
3619 Manufacture of other furniture n.e.c.
3691 Manufacture of jewelry and related articles
3694 Manufacture of games and toys
7421 Architectural and engineering activities and related technical consultancy
7499 Other business activities n.e.c. (translation and interpretation)
9199 Activities of other membership organizations n.e.c.
9232 Museum activities and preservation of historical sites and buildings

Non-Dedicated Support Industries

5119 Wholesale on a fee or contract basis of products n.e.c.
5131 Wholesale of textiles, clothing and footwear
5132 Wholesale of clothing and fur articles
5133 Wholesale of footwear
5134 Wholesale of electronic and telecommunication parts and equipment
5137 Wholesale of paper and paperboard and their products
5139 Wholesale of other household goods
5151 Wholesale of computers, computer peripheral equipment and software
5152 Wholesale of electronic parts and equipment
5153 Wholesale trade services of basic industrial chemicals, fertilizers, synthetic resins and plastic materials in primary form
5154 Wholesale of textile fibers
5159 Wholesale of other intermediate products, waste and scrap
5163 Wholesale of office, accounting and computing machinery
5190 Other wholesale
6041 Local freight transport by road
6042 Interurban freight transport by road
6043 International freight transport by road
6111 International water transport
6112 Coastal water transport
6120 Inland water transport
6212 National freight air transport
6214 International freight air transport
6220 Non-scheduled air transport
6310 Cargo handling

6320 Storage and warehousing
 6390 Activities of other transport agencies
 6411 National post activities
 6412 Courier activities other than national post activities
 6421 Telephone services
 6422 Network data transmission
 6423 Radio and television program transmission, on a fee or contract basis
 6424 Wired telecommunication carriers
 6425 Other telecommunication services
 6426 Telecommunication-related services
 7240 Database activities and on-line distribution of electronic content

UKRAINE

Report: The Economic Contribution of Copyright-Based Industries in Ukraine, 2008 Appendix 2 - Ukrainian Classification of Goods in Copyright-Based Industries

Core Copyright Industries

- Newspapers, journals and periodicals
- Printed books, brochures, leaflets and similar printed matter
- Children's books
- Maps and hydrographic or similar charts including atlases, typographical plans, globes
- Unused postage, revenue or similar stamps of current issue, stamp embossed paper, banknotes, check forms, stock or bond certificates and other documents of title
- Printed postcards or greeting cards
- Calendars
- Other printed matter including prints
- Printed music
- Records, tapes and other recorded media for sound including masters
- Original sculptures and statutory
- Paintings, drawings and pastels done by hand, collages or decorative plaques
- Transfers (decalcomanias)
- Plans and drawings for architectural, engineering, industrial, commercial topographical or similar purposes

Interdependent Copyright Industries

- Turntables, records players, cassette players and other sound reproducing apparatus, not incorporating a sound recording device
- Magnetic tape recorders and other sounds recording apparatus, whether or not incorporating a sound reproducing device
- Video recording or reproducing apparatus where or not incorporating a video tuner
- Receiving apparatus for radio-telephony, radio-telegraphy or radio-broadcasting, whether or not combined in the same housing, with sound recording or reproducing apparatus or a clock
- Receiving apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus; video monitors and video projectors
- Parts for the above.
- Electronic integrated circuits and micro-assemblies
- Automatic data processing machines and unites thereof, magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data
- Musical instruments
- Photographic plates and film, instant film

- Photographic paper, paperboard and textiles
- Cinematographic film
- Chemical preparations for photographic use
- Cameras, photographic flashlight apparatus and flashbulbs
- Cinematographic cameras and projectors
- Image projectors
- Photographic laboratory apparatus and equipment
- Photocopiers
- Duplicating machines
- Polycarbonates and similar blank recording material
- Prepared unrecorded media for sound recording
- Newsprint
- Uncoated paper and paperboard and punch adds
- Carbon paper and other transfer papers
- Kaolin coated paper and paperboard
- Paper or paperboard labels

Partial Copyright Industries

- Trunks, suitcases, school satchels, and other cases
- Leather articles used in machinery
- Clothing and other related fabrics (handkerchiefs, scarves, ties)
- Footwear
- Headgear
- Jewelry, gems and precious metals
- Gold and silversmiths' wares
- Coins
- Wood crafts
- Woven crafts
- Artificial flowers and fruit
- Animal product crafts (ivory, antlers, coral, etc)
- furniture
- Molded or carved plant or mineral materials (including for furniture)
- Bedding
- Kitchenware and toilet articles
- Statuettes
- Ceramics
- Glass, decorative
- Paving bricks and tiles, etc
- Carpets
- Wallpaper
- Toys
- Dolls
- Model
- Games
- Museum collections
- Antiques (over 100 years)

Non-Dedicated Support Industries

Missing or not-included in report

ROMANIA
Report: The Economic Contribution of Copyright-Based Industries in Romania, 2008
Included Copyright-Based Industries

Table 4.2: Core Copyright Industries

- Book publishing
- Newspaper publishing
- Publishing of journals and periodicals
- Publishing of sound recordings
- other publishing
- Printing of newspapers
- Printing n.e.c.
- Bookbinding
- Pre-press activities
- Ancillary activities related to printing
- Reproduction of sound recordings
- Reproduction of video recordings
- Manufacture of television and radio receivers, sound or video recording or reproduction apparatus and associated goods
- Software publishing
- Other software consultancy and supply
- Data processing
- Database activities
- Advertising
- Photographic activities
- Activities of professional organization
- Motion picture and video production
- Motion picture and video distribution
- Motion picture projection
- Radio and television activities
- Artistic and literary creation and interpretation
- Operation of arts facilities
- Fair and amusement activities n.e.c.
- New agency activities
- Library and archive activities
- Other recreational activities n.e.c.

Table 5.1: Interdependent Copyright Industries (Shows Employee Numbers; No specific table shown for GDP calculation)

- Manufacture of paper and paperboard
- Manufacture of other articles of paper and paperboard
- Manufacture of photographic chemicals
- Manufacture of prepared unrecorded media
- Manufacture of computers and other data-processing equipment
- Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods
- Manufacture of chairs and seats
- Manufacture of other office and shop furniture
- Manufacture of other kitchen furniture
- Manufacture of other furniture

- Manufacture of musical instruments
- Manufacture of games and toys
- Telecommunications
- Other computer-related activities

Table 5.4: Partial Copyright Industries

- Manufacture of made-up textile articles except apparel
- Manufacture of carpets and rugs
- Manufacture of other textiles n.e.c.
- Manufacture of knitted and crocheted fabrics
- Manufacture of knitted and crocheted hosiery
- Manufacture of leather clothes
- Manufacture of other outerwear
- Manufacture of underwear
- Dressing and dying of fur, manufacture of fur articles
- Manufacture of footwear
- Shaping and processing of flat glass
- Manufacture of hollow glass
- Manufacture of ceramic household and ornamental articles
- Manufacture of ceramic tiles and flats
- Manufacture of cutlery
- Striking of coins
- Manufacture of jewelry and related articles n.e.c.
- Architectural and engineering activities and related technical consultancy
- Other services mainly rendered to enterprises
- Activities of other membership organizations n.e.c.
- Museum activities and preservation of historical sites and buildings

Table 5.6: Non Dedicated Support Industries

- Wholesale trade and commission trade, except for motor vehicles and motorcycles
- Retail trade, except for motor vehicles and motorcycles; repair of personal and household goods
- Land transport; transport via pipelines
- Water transport
- Air transport
- Supporting and auxiliary transport activities; travel agency activities
- Post and telecommunications
- Rental of office machinery and equipment, including computers
- Maintenance and repair of office, accounting and computing machinery

BULGARIA

**Report: The Economic Contribution of Copyright-Based Industries in Bulgaria, 2007
Appendix 3 - Final List of Codes of Bulgarian National Classification of Economic Activities –
NCEA-2003 (Corresponding to the WIPO Classification of NACE Codes for Copyright-Based
Industries)**

Core Copyright Industries

- 11 Publishing books, brochures and other publications
- 22.12 Publishing newspapers

22.13 Publishing journals and other periodicals
 22.15 Other publishing activities
 22.21 Printing newspapers
 22.22 Printing other edited materials and printing products
 22.23 Binding printed materials
 22.24 Pre-press (pre-printing)
 22.25 Service activities related to printing
 52.47 Retail of books, newspapers and office materials
 52.50 Retail of used goods in shops (retail of second-hand books)
 74.87 Other business services
 92.31 Artistic and creative activities
 92.40 Activities of new agencies
 92.51 Activities of libraries and archives
 22.14 Publishing of audio recordings
 22.31 Reproduction of audio recordings
 51.43 Wholesale of home electric appliances and lighting devices, radio and television goods
 52.45 Retail of home electric appliances and lighting devices, radio and television goods
 74.87 Other business services
 92.31 Artistic and creative activities
 92.32 Exploitation of theater buildings, music and concerts halls and studios
 92.34 Other recreational activities
 22.32 Preproduction of video recordings
 51.43 Wholesale of home electric appliances and lighting devices, radio and television goods
 74.87 Other business services
 92.11 Production of motion pictures and video
 92.12 Distribution of motion pictures and video
 92.13 Motion picture projection
 92.31 Artistic and creative activities
 92.20 Radio and television activities
 74.81 Photographic activities
 22.33 Reproduction of computer recordings
 72.21 Publishing of standard software
 72.22 Other activities in software development
 72.30 Database activities
 72.40 Other activities related to databases
 72.60 Other activities in the field of computer technologies
 74.87 Other business services
 92.31 Artistic and creative activities
 92.52 Activities of museums and galleries, activities in preservation of cultural heritage
 74.40 Advertising
 74.87 Other business services

Interdependent Copyright Industries

32.30 Manufacture of television and radio receivers, sound CD players, DVD players, and video recording or reproducing apparatus
 51.43 Wholesale of home electrical appliances and lighting devices, radio and television goods
 52.45 Retail of home electrical appliances and lighting devices, radio and television goods
 30.02 Manufacture of accounting and computing machinery
 51.84 Wholesale of accounting and computing machinery, peripherals and software
 51.85 Wholesale of other office equipment, office machinery and office furniture
 71.33 Renting office, accounting and computing machinery, without operators
 36.30 Manufacture of musical instruments
 52.45 Retail of home electric appliances and lighting devices, radio and television goods
 33.40 Manufacture of optical instruments and photographic equipment
 24.64 Manufacture of photographic chemical materials

24.65 Manufacture of blank recording material
21.11 Manufacture of pulp
21.12 Manufacture of paper and paperboard
24.30 Manufacture of dyes, varnish and similar materials, printing ink and paste
29.55 Manufacture of machinery for pulp, paper, paperboard and other items
51.56 Wholesale of other non-agricultural intermediate products

Partial Copyright Industries

17.60 Manufacture of knitted fabrics
17.71 Manufacture of socks and tights
17.72 Manufacture of classical pullovers, waistcoat and similar items
18.10 Manufacture of leather clothes
18.21 Manufacture of working clothes
18.22 Manufacture of wearing apparel, without working clothes
18.23 Manufacture of shirts, blouses and other underwear
18.24 Manufacture of other clothes and accessories
19.30 Manufacture of footwear
29.54 Manufacture of machinery for textile, apparel, leather and leather clothes
51.42 Wholesale of apparel and footwear
52.41 Retail of textile
52.42 Manufacture of apparel and other cloths
52.43 Retail of footwear and leather items
36.21 Cutting coins
36.22 Manufacture of jewelry and related articles, made of precious metal and stones
36.61 Manufacture of imitation jewelry
36.63 Other manufacture
36.11 Manufacture of chairs and seats
36.12 Manufacture of office furniture (without chairs)
36.13 Manufacture of kitchen furniture (without chairs)
36.14 Manufacture of other furniture (without chairs)
36.15 Manufacture of spring-beds and matrices kitchen furniture (without chairs)
51.85 Wholesale of other office equipment, office machinery and office furniture
52.44 Retail of furniture, lighting devices and household goods, not falling under other codes
20.51 Manufacture of other wooden items
20.52 Manufacture of goods of cork, knitted and crocheted fabrics and articles
26.12 Forming and treatment of flat glass
26.13 Manufacture of glass household goods and packing
26.14 Manufacture of glass fibers
26.15 Manufacture of other glass products, including for technical use
26.21 Manufacture of china and ceramic household and decorative goods
26.22 Manufacture of sanitary ceramics
26.23 Manufacture of ceramic insulators
26.24 Manufacture of ceramic items for technical use
26.25 Manufacture of other ceramic goods
26.26 Manufacture of fireproof ceramic goods
28.75 Manufacture of metal goods, not falling under other codes
31.50 Manufacture of lamps and lighting devices
52.44 Retail of furniture, lighting devices and household goods, not falling under other codes
17.51 Manufacture of carpets and rugs
21.24 Manufacture of wall covering
21.25 Manufacture of other paper and paperboard goods
36.50 Manufacture of games and toys
74.20 Architecture, engineering, surveying
52.50 Retail of second-hand goods in shops (retail of antiques)
92.52 Activities of museums and galleries, activities in preservation of cultural heritage

Non-dedicated Support Industries

- 51.11 Commission trade with agriculture goods, animals, raw materials for textile and semi-manufactured goods
- 51.12 Commission trade with fuel, ores, metals and chemical products
- 51.13 Commission trade with wood and other building materials
- 51.14 Commission trade with machinery, industrial equipment, boats, ships and airplanes
- 51.15 Commission trade with furniture, household goods, iron items
- 51.16 Commission trade with textiles, apparel, footwear and leather items
- 51.17 Commission trade with food, drinks and tobacco goods
- 51.18 Commission trade with other goods
- 51.19 Commission trade with different goods
- 51.41 Wholesale of textiles
- 51.43 Wholesale of home electric appliances and lighting devices, radio and television goods
- 51.44 Wholesale of china, glass, wall coverings and detergents
- 51.45 Wholesale of perfumery and cosmetics
- 51.46 Wholesale of pharmaceutical, medical and orthopedic goods
- 51.47 Wholesale of other household goods
- 51.81 Wholesale of industrial machinery and their components
- 51.82 Wholesale of machinery for mining and construction
- 51.83 Wholesale of machinery for textile, apparel, footwear and leather manufacture
- 51.86 Wholesale of electronic components and equipment
- 51.87 Wholesale of other machinery and equipment in manufacturing, trade, navigation and transportation
- 51.88 Wholesale of tractors and other agricultural machinery and their components
- 51.90 Wholesale of other goods
- 52.11 Retail in non-specialized shops of food, drinks and tobacco
- 52.12 Retail in non-specialized shops of diverse items
- 52.45 Retail of home electric appliances and lighting devices, radio and television goods
- 52.48 Retail in specialized shops with other goods
- 52.50 Retail of used goods in shops
- 52.61 Retail of firms, executing orders by mail
- 52.62 Retail of goods at open markets
- 52.63 Retail of other goods not sold in shops
- 60.10 Transport by rail
- 60.21 Other scheduled land transportation
- 60.22 Taxi land transport of passengers
- 60.23 Other non-scheduled land transport
- 60.24 Cargo transport with trucks
- 61.10 Sea and coastal transport
- 61.20 River transport
- 62.10 Scheduled air transport
- 62.20 Non-scheduled air transport
- 63.11 Cargo handling
- 63.12 Storage and warehousing
- 63.21 Other supporting transport activities
- 63.22 Other supporting activities in water transport
- 63.23 Other supporting activities in air transport
- 63.30 Activities of travel agencies and tour operators, tourist assistance activities
- 63.40 Activities of other transport agencies
- 64.11 National postal activities
- 64.12 Courier activities other than national postal activities
- 64.20 Telephony and Internet

IV. Non-attributable Group

- 51.47 Wholesale of other household goods
- 52.48 Retail in specialised shops with other goods
- 71.40 Renting personal and household goods