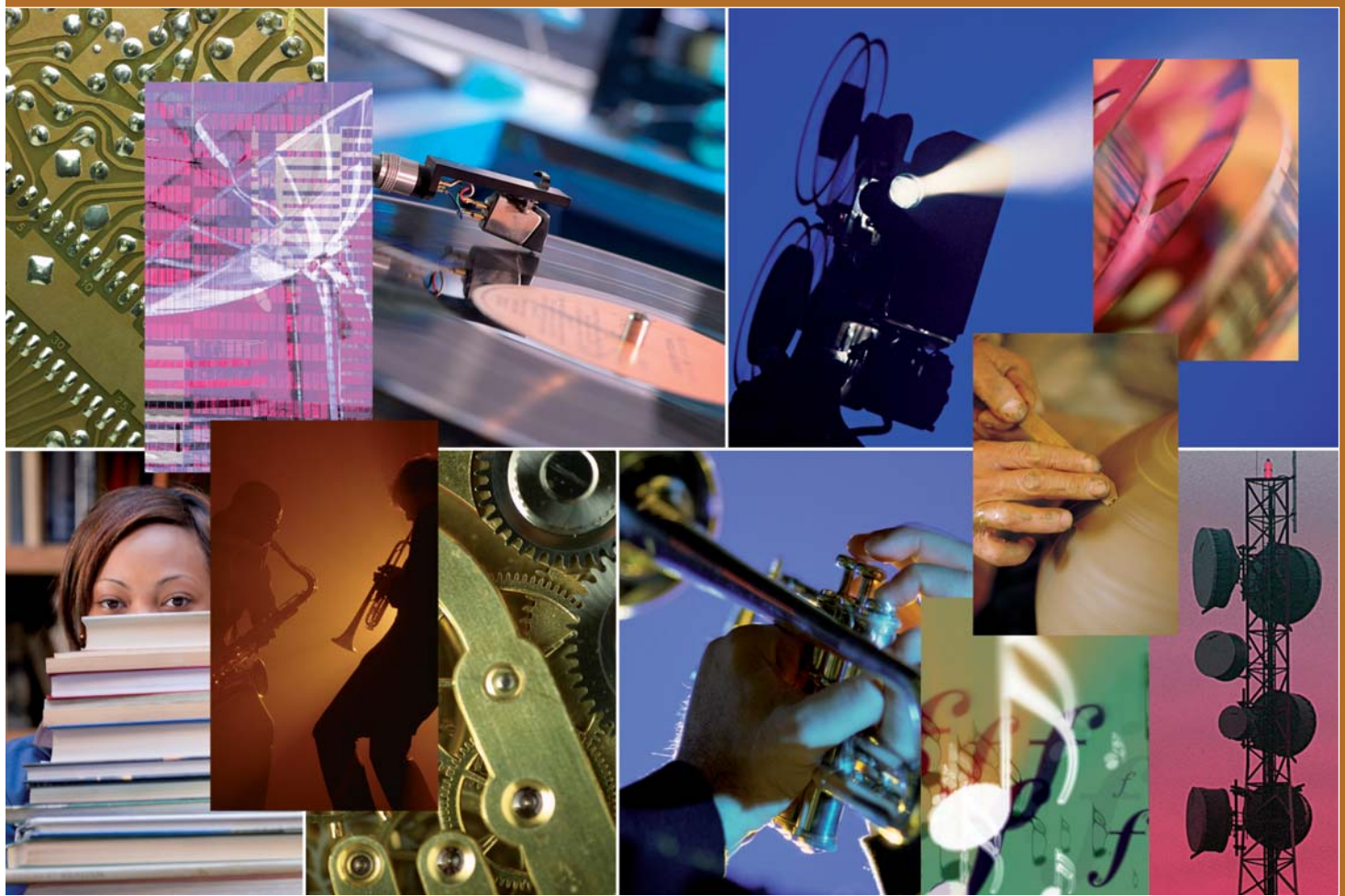


National Studies on Assessing the Economic Contribution of the Copyright-Based Industries



Creative Industries Series No. 3



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The Economic Contribution of Copyright-Based Industries in Colombia



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Table of Contents

1	Main Rules Governing the Copyright-Based Industries in Colombia.	15
1.1	Copyright in Colombia	15
2	The Economic Importance of Intellectual Property	18
2.1	The Importance of Measuring the Economic Dimension	18
2.2	Methodological Difficulties of the Study	19
2.3	Background to Measuring the Economic Contribution of the CBI	20
2.3.1	<i>The Study by the Andrés Bello Convention and the Ministry of Culture.</i>	20
2.3.2	<i>Cultural Satellite Accounts</i>	22
3	Methodology for the Estimation of Value Added	25
3.1	Identification of the CBI in Colombia	27
3.2	Sources of Information	29
3.2.1	<i>Annual Manufacturing Survey (EAM)</i>	29
3.2.2	<i>Superintendency of Companies</i>	29
3.2.3	<i>System of National Accounts (SNA)</i>	30
3.2.4	<i>Annual Survey of Services</i>	30
3.3	Measurement of Value Added (VA)	30
3.3.1	<i>Annual Manufacturing Survey</i>	30
3.3.2	<i>Superintendency of Companies</i>	30
3.4	Adjustments to Calculate the GVA of Certain Transport and Trade Activities (Copyright Factor)	31
3.5	Treatment of Informal Sectors	33
3.6	Deflators	33
4	Results of this Study for Colombia	35
4.1	Performance of the Colombian Economy	35
4.2	Structure of the Colombian Economy	36
4.3	CBI Generation of Value Added	38
4.3.1	<i>Trends of the Value Added of the CBI</i>	38
4.4	The CBI in the National Context	41
4.5	International Comparisons (GVA and Employment)	42
4.6	CBI Structure	44
4.6.1	<i>Core Industries</i>	44
4.6.2	<i>Interdependent Industries</i>	48
4.6.3	<i>Partial Industries</i>	49
4.6.4	<i>Non-Dedicated Support Industries</i>	50
4.7	Regional Structure of CBI Gross Value Added	52
5.	Employment Generation in the CBI	53
5.1.	Source of Information	53
5.1.1.	<i>Household Surveys</i>	53
5.1.2.	<i>Annual Manufacturing Survey</i>	54
5.1.3.	<i>Secondary Sources</i>	54
5.2.	Some Characteristics of the Colombian Labor Market	54
5.3.	Employment in the CBI	55

6. The CBI in Colombia's Foreign Trade	60
6.1. Initial Considerations	60
6.2. Sources of Foreign Trade Information	60
6.3. Structure and Trends of Colombia's Foreign Trade	61
6.4. Foreign Trade in the CBI	62
6.5. Exports	64
6.5.1. <i>CBI Exports by ISIC</i>	65
6.6. Imports	68
6.6.1. <i>CBI Imports by ISIC</i>	69
6.7. Trade Balance of the CBI	72
6.8. CBI Service Exports	74
7. Conclusions	76
8. Annexes	78
Annex 1. The CBI in Colombia	78
Annex 2. Manufacturing Employment in the CBI, 2000-2005	82

List of Tables

Table 1. Major Agreements Signed by Colombia (Copyright)	16
Table 2. Value Added of the Cultural Industries	21
Table 3. Participation of the Cultural Industries in GDP	22
Table 4. Value Added Cultural Activities, Year 2000	23
Table 5. WIPO List of CBI	25
Table 6. Correspondence between the ISIC and the ISIC adjusted for Colombia	28
Table 7. Number of CBI in the ISIC adapted for Colombia	29
Table 8. Adjustment Factors for the CBI	32
Table 9. Input-Output Coefficients for the Support Industries	33
Table 10. Implicit Prices in National Accounts for the CBI, Base Year 1994 = 100	33
Table 11. Total GDP and GDP <i>per capita</i>	36
Table 12. Percentage Distribution of GDP by Economic Activity, 2000-2005	37
Table 13. GDP at Constant Prices by Economic Activity, 2000-2005	37
Table 14. GDP Growth Rate by Economic Activity, 2000-2005	38
Table 15. CBI Value Added, 2000-2005	38
Table 16. Real Growth Rates of GDP and the CBI in Colombia	40
Table 17. Value Added Composition of the Core Industries, 2000-2005	45
Table 18. Value Added Composition of the Interdependent Industries, 2000-2005	49
Table 19. Value Added Composition of the Partial Industries, 2000-2005	49
Table 20. Value Added Composition of Non-Dedicated Support Industries, 2000-2005	51
Table 21. Labor Market Indicators	54
Table 22. Total National Employment	54
Table 23. Employment by Economic Activity, 2006	55
Table 24. Total CBI Employment (Numbers of Workers)	56
Table 25. Participation (%) of the CBI in Total National Employment	57
Table 26. Distribution (%) of CBI Employment	57
Table 27. Annual Growth (%) in CBI Employment	57
Table 28. Employment Creation during 2003-2006	58
Table 29. Employment Creation by the CBI during 2003-2006	58
Table 30. CBI and National Employment Annual Growth Rates	59
Table 31. Balance of Payments of Goods and Non-Factor Services	62
Table 32. Numbers of CBI Involved in Foreign Trade	63
Table 33. Exports and Imports of the CBI, 2000-2005	63
Table 34. Exports of the Core Industries	65
Table 35. Exports of the Interdependent Industries	66
Table 36. Exports of the Partial Industries	67
Table 37. Imports of the Core Industries	70
Table 38. Imports of the Interdependent Industries	71
Table 39. Imports of the Partial Industries	72
Table 40. Trade Balance of the CBI	73
Table 41. Foreign Trade in CBI Services	74
Table 42. International Standard Industrial Classification (ISIC) of Copyright-Based Industries (CBI) adapted for Colombia	78
Table 43. Manufacturing Employment in the Core Industries	82
Table 44. Manufacturing Employment in the Interdependent Industries	83

Table 45. Manufacturing Employment in the Partial Industries	84
Table 46. Manufacturing Employment in the Non-Dedicated Support Industries	85

Executive Summary

This research study, which was commissioned by the World Intellectual Property Organization (WIPO) and the National Copyright Directorate of Colombia, seeks to quantify the economic contribution of the copyright-based industries (CBI) to value added output (GDP), foreign trade (exports and imports) and employment in Colombia during the period 2000-2005.

1. Legal Framework

Copyright is the legal right granted to an author to distribute his work. The object of copyright is the work, which is defined as “any artistic, scientific or literary original creation, which can be disseminated or reproduced in any form.”

Likewise, there is a set of rights which protect certain activities. These are known as related rights. Although the activities protected are not literary, artistic or scientific creations, they have close links with the distribution of original works. These rights have been traditionally granted to performers, producers of phonograms and broadcasting companies.

2. Methodology

Based on the methodology proposed by WIPO, this study is focused on identifying the copyright-based industries and quantifying their contribution to value added output, employment and external trade. These industries include companies that contribute to the production and marketing of works protected by copyright at different points in the value chain.

The different categories of copyright-based industries are as follows:

- a. The core copyright industries: this group brings together all industries wholly dedicated to the creation, production, representation, exhibition, communication, distribution and sale of materials protected by copyright (i.e. music, literature, theatrical productions, film, communication media, visual arts, advertising services and collective copyright management).
- b. The interdependent industries: these are industries that contribute to the production, manufacture and sale of equipment. Their purpose is to facilitate the creation, production and use of material protected by copyright (manufacture and sale of appliances such as televisions, CD recorders and computers, musical instruments and photographic equipment, etc.).
- c. The partial copyright industries: these refer to certain activities that are related or linked to materials protected by copyright (such as jewelry, architecture, handicrafts, etc.).
- d. The non-dedicated support industries: this category relies indirectly and marginally on materials protected by copyright. Industries in this group dedicate their efforts equally to other activities not related to copyright (sales of telephone and transport equipment and other products).¹

Table 1. Summary of the Copyright-Based Industries according to the ISIC Classification

Core	Interdependent	Partial	Non-Dedicated Support	Total
25	13	25	35	98

Figures indicate number of four-digit items.

Source: This study.

¹The contribution of copyright to these industries has been calculated based on a specific factor (WIPO, 2005).

3. Results of the Study

3.1. Contribution of the CBI to the Value Added

Table 2 shows that the total value added of the copyright-based industries in Colombia reached Col\$9.5 millions of millions in 2005 (approximately 4,800 million US dollars) from Col\$5.7 millions of millions in 2000. As a percentage of GDP, the CBI represented an average of 3.3 per cent throughout the period.

In real terms, i.e. discounting price increases, the value added of the CBI grew 29 per cent in five years from Col\$2.4 millions of millions in 2000 to Col\$3.1 millions of millions in 2005 (at 1994 constant prices).

During the period analyzed, the CBI had an average participation in GDP of 3.3 per cent. This rate is similar to the share of electricity and gas, slightly higher than the contribution of crude oil and natural gas extraction and more than double that of coffee and coal. The latter comparison emphasizes the importance of the CBI in national output since coffee and coal are two important Colombian exports, which have a significant share in the global market.

The composition of the CBI is as follows: the core industries represent 56 per cent of the total value added generated by these economic activities, followed by interdependent (24 per cent), non-dedicated support (13 per cent) and partial copyright industries (8 per cent).

Table 2. Value Added of the CBI

	2000	2001	2002	2003	2004	2005
GDP Colombia	174,896	188,559	203,451	228,517	257,746	285,313
Total CBI	5,732	6,092	6,824	7,669	8,458	9,531
Core	3,077	3,345	3,760	4,215	4,656	5,330
Interdependent	1,524	1,576	1,731	1,982	2,148	2,260
Partial	440	484	532	572	668	727
Non-Dedicated Support	691	688	801	901	986	1,214
Thousand millions of Col\$ at 1994 prices						
GDP Colombia	74,364	75,458	76,917	79,884	83,772	87,728
Total CBI	2,417	2,427	2,582	2,675	2,798	3,053
Core	1,277	1,295	1,388	1,446	1,510	1,669
Interdependent	627	632	658	678	700	713
Partial	207	213	215	209	222	232
Non-Dedicated Support	307	287	321	342	366	439
CBI share in Colombia's GDP						
GDP Colombia	100	100	100	100	100	100
Total CBI	3.3	3.2	3.4	3.4	3.3	3.3
Core	1.8	1.8	1.8	1.8	1.8	1.9
Interdependent	0.9	0.8	0.9	0.9	0.8	0.8
Partial	0.3	0.3	0.3	0.3	0.3	0.3
Non-Dedicated Support	0.4	0.4	0.4	0.4	0.4	0.4

Source: This study.

3.2. Contribution to Employment

In 2006, the CBI generated 1,097,430 jobs, representing 5.8 per cent of the total national employment and 12.7 per cent of the total employment in the 13 major cities and their metropolitan areas, giving these industries a higher share in national employment than traditional sectors such as construction, finance and coffee.

Table 3. Employment of the CBI

	2003	2004	2005	2006
Total CBI	941,754	987,942	1,031,323	1,097,430
Core	270,850	289,573	301,299	321,846
Interdependent	123,521	128,684	132,471	140,606
Partial	306,544	318,997	332,873	352,426
Non-Dedicated Support	240,839	250,688	264,680	282,552
CBI share in Colombian employment	5.5	5.8	5.8	5.8
Core	1.6	1.7	1.7	1.7
Interdependent	0.7	0.8	0.7	0.7
Partial	1.8	1.9	1.9	1.9
Non-Dedicated Support	1.4	1.5	1.5	1.5

Source: This study.

Breaking down the contribution of these industries for 2005, the core industries accounted for 1.7 per cent of total national employment, the interdependent industries 0.7 per cent, the partial copyright industries 1.9 per cent and the non-dedicated support industries 1.5 per cent.

Between 2003 and 2006, the copyright-based industries created around 156,000 additional jobs, representing 8.8 per cent of the total new jobs in the country, and 16.5 per cent of those created in the 13 major cities and their metropolitan areas. These new jobs in the CBI represent a cumulative growth rate of 16.5 per cent, 6.2 points higher than the cumulative national growth of 10.3 per cent and 4.3 points above the 12.2 per cent rate for the 13 major cities and their metropolitan areas.

3.3. Contribution to Foreign Trade

In 2005, the CBI had a trade deficit since their imports of 4,800 million US dollars were more than double their exports of 2,138 million US dollars. While CBI exports represented 16.7 per cent of the industrial exports and 10.1 per cent of total exports, imports had a more substantial share at 24 per cent of industrial imports and 22.6 per cent of total imports.

The CBI trade deficit of 2,200 million US dollars indicates that the country is a net importer of CBI goods and services. However, this initial result is mainly determined by imports of the interdependent industries. If only the core industries' export and import transactions were taken into account, the trade balance would be reversed, that is, the country would be a net exporter of CBI goods and services. The following table shows the CBI foreign trade by category.

Table 4. Exports and Imports of the CBI, 2000-2005

	Exports (FOB)					
	2000	2001	2002	2003	2004	2005
Core	172.4	212.6	189.7	188.1	218.8	232.8
Interdependent	226.6	282.9	283.5	327.6	392.8	433.5
Partial	903.6	987.0	950.1	1,033.4	1,377.4	1,471.5
Non-Dedicated Support	0.0	0.0	0.0	0.0	0.0	0.0
Total CBI	1,302.7	1,482.4	1,423.2	1,549.1	1,989.0	2,137.8

	2000	2001	2002	2003	2004	2005
Total National						
Total Exports	13,158	12,330	11,975	13,129	16,788	21,190
Industrial Sector	7,073	7,397	7,200	7,979	10,469	12,778
Participation of CBI in Total Exports (%)						
Total Exports	9.9	12.0	11.9	11.8	11.8	10.1
Industrial Sector	18.4	20.0	19.8	19.4	19.0	16.7

	Imports (CIF)					
	2000	2001	2002	2003	2004	2005
Core	117.1	178.9	106.7	102.4	109.4	131.2
Interdependent	1,844.0	1,962.7	2,032.7	2,330.1	2,641.9	3,804.7
Partial	597.1	621.6	611.4	591.1	733.9	864.5
Non-Dedicated Support	0.0	0.0	0.0	0.0	0.0	0.0
Total CBI	2,558.2	2,763.3	2,750.9	3,023.7	3,485.1	4,800.4

	2000	2001	2002	2003	2004	2005
Total National						
Total Imports	11,757	12,821	12,695	13,882	16,764	21,204
Industrial Sector	10,856	11,827	11,704	12,826	15,549	19,965
Participation of CBI in Total Imports (%)						
Total Imports	21.8	21.6	21.7	21.8	20.8	22.6
Industrial Sector	23.6	23.4	23.5	23.6	22.4	24.0

Source: This study, based on trade figures from Colombia's National Statistics Department.

3.4. Conclusions

This study has been designed to measure the economic dimension of the copyright-based industries in aggregate terms and at a macro level in Colombia. This research has shown that the role of copyright and related rights can be examined, like other rights, in economic terms.

Likewise, it has demonstrated that within the cultural heritage framework, these industries constitute a potential source of economic growth and development.

- The CBI make an important economic contribution. In 2005, the CBI contributed 3.3 per cent of GDP; generated 1,031,323 jobs or 5.8 per cent of total national employment and exported 2,138 million US dollars.
- These industries exhibited higher levels of growth compared with other traditional sectors of the Colombian economy.

The quantitative analysis done in this study showed that these industries: i) mobilize huge resources, generate wealth, employment and foreign exchange; ii) have close economic, industrial and technological ties with other sectors of the economy; iii) occupy an important place among the best performing sectors; iv) present greater economic value compared with many industries engaged in the production of traditional goods and services.

In a globalized world, and with the opportunities offered by the new economy based on information and communication technology (ICT), competitive advantages of countries are no longer based so much on their natural resources and the production of non-tradable goods, but on the introduction of technological and organizational innovations and strategic information (elements of knowledge).

The CBI include dynamic sectors associated with the ICT, which will not only open new fields of application for copyright and related rights but will also generate new investment to further raise the participation of the CBI in the economy in the immediate future.

The purpose of quantifying the economic contribution of the CBI to value added, national employment and foreign exchange income is to make these industries “visible” to the public and to potential investors and financiers (the public sector, firms and private investors).

From the public policy point of view, this study is designed to guide specific measures to promote the consolidation and expansion of the copyright industries. In other words, this study is geared towards the implementation of policies which will influence the allocation of resources to generate production capacity at national and local levels; the training of human resources through the promotion of vocational and technical training; the generation of information systems and the dissemination and appropriation of technologies.

Introduction

The creation, production and marketing of intangible creative products serve as channels to transmit the country's cultural identity. Likewise, because of their significant contribution to economic growth and employment generation, they are analyzed with a view to creating specific policies to promote their development.

The new perception and growing recognition of the potential of the creative industries which, according to Kamil Idris (2000) "constitute the heart of industries protected by copyright", are based on the new economic framework supported by knowledge, information and the opening of markets. These components of the global economy, coupled with the significant monetary value of the CBI, which in many cases surpasses the value of goods and services produced in the traditional sectors, also explain the huge demand for information on the importance or weight of these industries in the national economic aggregates.

Likewise, the dynamism of the products of the new economy (qualitative changes, new products, new forms of production, consumption, etc.) has also influenced legislation on copyright to a great extent.

In view of these developments, this study will identify the economic relations between the CBI and other sectors of the economy, especially services, which directly or indirectly depend on the CBI, and will quantify their contribution to the Colombian economy:²

- *To emphasize the positive effects of CBI on the Colombian economy to encourage policy makers to incorporate the right policies concerning this sector.*
- *To demonstrate with convincing statistical evidence the competitive advantages of the country's creative sector.*

Although, it is clear that the granting of legal rights to an author concerning the distribution of his work and the effective protection of these rights are fundamental mechanisms to encourage creation and innovation activities and to promote investment, it is still necessary for the government to play an active role in formulating policies to promote these industries to ensure that they will contribute robustly to the country's economic growth.

The basis of this research was the statistical information system developed, among others, by the National Statistics Department (DANE), the National Tax and Customs Directorate (DIAN) and the Central Bank. Likewise, the information provided by various CBI business and trade organizations mainly through the National Copyright Directorate was very useful.

The initiative for and the successful completion of this study were made possible thanks to the support of Dr. Fernando Zapata López, the director of the National Copyright Directorate in Colombia. Likewise, the valuable help and advice of Dr. Dimiter Gantchev of WIPO and Dr. Jose Luis Zofio, from the Universidad Autónoma de Madrid, made this undertaking possible and the authors would like to express their special appreciation to them. This same recognition is extended to our colleagues from the National Copyright Directorate and to CBI business and trade organizations.

² WIPO Magazine (May-June 2005), p.22.

1 Main Rules Governing the Copyright-Based Industries in Colombia.³

1.1 Copyright in Colombia

Copyright is the legal right granted to an author to distribute his work. The object of copyright is the work, which is defined as "any artistic, scientific or literary original creation, which can be disseminated or reproduced in any form". The concept of "literary and artistic property rights" had its origins in the French Revolution, and began to consolidate internationally during the first half of the nineteenth century. It was from that moment that most countries in the world started to create legislation to protect intellectual property.

Likewise, there is a set of rights which protect certain activities. These are known as related rights. Although the activities protected are not literary, artistic or scientific creations, they have close links with the distribution of original works. These rights have been traditionally granted to performers, producers of phonograms and broadcasting companies.

In Colombia, copyright and related rights are mainly regulated by Law 23 of 1982. Colombia has a Copyright Office, which is under the Ministry of Interior and Justice. The following summarizes the main provisions of this law:

Article 10 states that "the author of a work, unless proved otherwise, refers to the person whose name, pseudonym, initials, or any other mark or conventional signs (that are commonly known as equivalent to the same person) appear in print in the work and its reproductions or are articulated in the recitation, implementation, representation, interpretation or in any other form of public dissemination of such work."

1. Moral Rights

According to Article 30 the author has a perpetual right, inalienable and irrevocable to: i) divulge the work, that is, to make it known publicly; ii) claim authorship of the work at any time and in particular, to guarantee that his name or pseudonym appear when the work is published; iii) ensure that his work is not distorted, mutilated nor destroyed; iv) withdraw circulation or suspend any kind of use even though these were previously authorized.

2. Economic Rights

According to Article 12, the author has the right to perform any of the following acts: i) reproduce the work; ii) carry out a translation, adaptation, change or any other transformation of the work; iii) communicate the work to the public by representation, implementation, broadcasting or any other means.

As a general rule (Article 11), the economic value of an author's work lasts to the author's life plus 80 years. The rights of artists, interpreters and performers last their life plus 80 years.

3. Collective Management

In order to acknowledge the rights of authors, especially with respect to representation and performance, the law allows the creation of entities known as associations of authors and performers. In Colombia, these organizations are of a private nature and are non-profit with legal representation, established to defend the interests of owners of copyrights and related rights.⁴

³This chapter is based on the studies of A. Vega (2003) and M. Pachón (1988).

⁴The governing rules are articulated in Decision 351 of 1993, Law 44 of 1993.

4. Protected Works in Colombia.

Colombian law protects works published in Colombia for the first time either by Colombian or foreign authors, as well as works published abroad for the first time, provided that: i) the law of the country where the work is published protects works that are published for the first time in Colombia; ii) Colombia has signed an agreement with the respective country to protect works.

5. International Protection Agreements

Colombia has signed many international agreements that have encouraged the country to recognize protection levels that are not inferior to those established in international agreements.

Table 1. Major Agreements Signed by Colombia (Copyright)

Subject of Agreement	Country or Agency	Title of Agreement, Venue and Date of Signature	Entry into force
Copyright	UNESCO	Universal Copyright Convention and its Protocols I and II, revised in Paris on July 24, 1971 Geneva, September 6, 1952	June 18, 1976 Law 48 of 1975
Related Rights	WIPO	Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations Rome, October 26, 1961	September 17, 1976 Law 48 of 1975
Copyright and Industrial Property	WIPO	Convention Establishing the World Intellectual Property Organization Stockholm, July 14, 1967	May 4, 1980 Law 46 of 1979
Copyright	WIPO	Berne Convention for the Protection of Literary and Artistic Works Berne, September 9, 1886	March 7, 1988 Law 33 of 1987
Copyright	WIPO	Film Register Treaty Geneva, April 18, 1989	May 9, 1994 Law 26 of 1992

Related Rights	WIPO	Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms Geneva, October 29, 1971	May 16, 1994 Law 23 of 1992
Copyright	WIPO	WIPO Copyright Treaty (WCT) Geneva, December 20, 1996	November 29, 2000
Copyright and Related Rights	WIPO	WIPO Performances and Phonograms Treaty (WPPT) Geneva, December 20, 1996	November 29, 2000 Law 545 of 2000
Copyright		Agreement on Literary and Artistic Property Caracas, July 17, 1911.	July 28, 1914 Law 65 of 1913.
Copyright		Inter-American Copyright Agreement on Literary, Scientific and Artistic Works Washington, June 22, 1946.	January 4, 1972 Law 6 of 1970.
Copyright and Related Rights	Group of Three	Free Trade Agreement signed between Colombia, Mexico and Venezuela, the Group of Three, G-3 Cartagena de Indias, June 13, 1994	January 1, 1995 Law 172 of 1994
Copyright and Related Rights	World Trade Organization	Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) Marrakech, April 15, 1994	December 16, 1994 Law 170 of 1994

Source: National Copyright Directorate of Colombia.

2 The Economic Importance of Intellectual Property

From an economic point of view, the main function of copyright is to provide incentives for intellectual output in a way that maximizes the difference between the value of the protected property and the social cost of its creation, including the cost of administration of the system. It is only through the effective protection of these rights that investments can flourish to promote the development of creative and innovative activities. The main mechanism to provide these incentives is to prohibit copying or the commercial use of a work without authorization or remuneration, by limiting access to the works or their enjoyment (Correa, 2000; Idris, 2000).

The economic importance of copyright and related rights increases in areas of major technological development and economic dynamism, such as information technology, mass media, technological research and development.⁵

2.1 The Importance of Measuring the Economic Dimension

The economic studies on intellectual property began in the mid-1950s. Most of these studies focused on industrial property and especially on patenting inventions. Copyright and related rights received relatively minor attention. Today, there is increasing interest in Latin American countries to quantify the economic contribution of intellectual property in GDP, employment and exports.

The function of copyright and related rights can be examined, like other rights, in economic terms.⁶ The importance of these rights is recognized due to the following factors:

- a. The copyright-based industries constitute a major economic phenomenon mobilizing huge resources, generating wealth, employment and foreign exchange for the country.
- b. The copyright industry complex has extensive economic, industrial and technological relations with other sectors of the economy, especially with the service sector, which directly or indirectly depends on the CBI level of activity.
- c. The great dynamism of products of the new economy (qualitative changes, new products, new forms of production and consumption) has had a big impact on copyright legislation, thus increasing the economic importance of the CBI.
- d. The economy has experienced structural transformation toward services, where knowledge and content have become the main factors for economic growth.
- e. The protection levels and exclusive rights granted by legislation guarantee the attraction of new investment in research and development of new technologies with market potential.
- f. The importance acquired by cultural products in the international trade of goods – and especially of services – has encouraged particular interest in the intellectual rights associated with their creation and production in international trade negotiations.

The foregoing shows why countries tend to have a greater interest nowadays in studying the phenomenon of the copyright industries, their importance, economic and social performance, structure, and market operation.⁷

⁵ It is clear to the authors that intellectual creation does not only cover economic aspects, which implies that it cannot be reduced to purely market considerations. It involves socio-cultural values that cannot be measured in purely monetary terms.

⁶ Correa, 2000.

⁷ A step in this direction has been the creation by DANE of the Satellite Cultural Account within the context of the National Accounts System.

2.2 Methodological Difficulties of the Study

In Colombia, the quantification of the contribution of these industries to the main economic aggregates presents conceptual and statistical difficulties, characteristic of other studies on the copyright-based industry sector (Bonet (2002); Márquez et al. (2006); García et al. (2008) and Siwek (2002)).

- a) The scope of protection is very wide because it includes literary or artistic creative expression. Likewise, international treaties leave open the possibility of copyright protection to include new modes of creation that can meet the characteristic features of the works covered, such as databases, video clips or software, etc.⁸
- b) The quantification of these industries is problematic. The intellectual output is the result of the creation of new ideas, but this creation by definition is immaterial and therefore its results are intangible.
- c) These industries are very dynamic and they experience constant and rapid change. In effect, the emergence of magnetic tape, copiers, video tape, VCRs, computers, computer software, databases, satellite broadcasts and cable distribution, the invention of digital technology and the advent of information super highways which combine digital technology and telecommunications, have given way to the development and consolidation of powerful industries of cultural goods (Vega, 2003). This dynamism, however, has also made the monitoring of these industries increasingly difficult, given that many activities are done through computer networks that go beyond administrative and legal borders. In addition, the entities responsible for producing statistics react slowly to the changes brought about by advances in information technology.
- d) The limitations of the national statistics system, among others, the lack of information disaggregation (ISIC at four digits) on public and private agents. This makes it difficult to accurately identify the copyright industries, which are often included or hidden in larger groupings.⁹ This limitation is notable in the partial copyright industries and the non-dedicated support industries and translates into problems of under- or over-estimation.¹⁰
- e) The problems of regularity and frequency in data collection and the different criteria applied in gathering and constructing information. This is the case with the household surveys, which have undergone various methodological changes since 2000. In the case of the Superintendency of Companies, the number of registered companies can vary from year to year due to the changes in the criteria required from companies obliged to give financial statement reports. Therefore, at the aggregate level, increases in the output or value added may occur due to the entry of new companies. These companies may already exist, but have not been required to report to the Superintendency of Companies.
- f) Differences in the sources of information regarding the coverage, regularity and methodology of estimation, etc.
- g) In the strict sense, the last economic census in Colombia was conducted in 1991. For this reason, updated specific information on the situation and economic activities of Colombian businesses do not exist.

⁸ The protection given to the work is independent of the genre (artistic or literary), the form of expression (written, audio or audiovisual), and the merit and intended use of the work (Vega, 2003).

⁹ In contrast, the North American Industry Classification System (NAICS), aside from including a system of "information media," allows the disaggregation of industries to six digits (Márquez et al., 2006).

¹⁰ This problem of under- or over-estimation is due to the difficulty of separating or excluding elements in the partial copyright industries and the non-dedicated support industries but does not affect to the core copyright industries.

- h) The CBI organizations, with very few exceptions, do not develop their own economic information system to continuously monitor their sectors.
- i) Lack of information on small-scale or informal establishments. In the 13 major cities, where the CBI are concentrated, 58 per cent of the employees work in the informal sector and 16 per cent of these work in the industrial sector.
- j) Difficulty in monitoring e-commerce and virtual enterprises, which are becoming numerous and more important in the CBI.

Although this research faced many methodological limitations, it is worth mentioning that the methodology developed in the study presents certain strengths, especially if any future update is taken into account. For instance, the sources of information have shown improvement in terms of coverage of activities as a result of the efforts to "formalize" economic activities and to widen the tax base. Although the Superintendency of Companies is not an organization solely for statistical data collection, the criteria applied for data collection on businesses have the advantage of maintaining homogeneity (the financial statements must meet legal standards set by law), guaranteeing the comparison and temporal monitoring of activities of interest. One advantage of this source of information is that it is not plagued with the problem of lack of resources, which is the case with public statistical entities. This is a problem which normally affects the continuity of data collection.

2.3 Background to Measuring the Economic Contribution of the CBI

In Colombia, two studies have been undertaken to evaluate the contribution of cultural activities in the economy, i.e. their impact on GDP. The first study was carried out under the projects supported by the Andrés Bello Convention and some Ministries of Culture of Latin American countries (Colombia, Ecuador, Peru and Venezuela).

The second was conducted as part of the creation of cultural satellite accounts in the countries of the region. These satellite accounts were conceived as economic measurement systems of culture under the national system accounts framework of the statistical departments (DANE for Colombia), or the central banks of countries included in this research. Based on the guidelines of the CONPES Document¹¹ in December 2002, Colombia's Ministry of Culture, the Andrés Bello Convention, the National Statistics Department (DANE) and the National Copyright Directorate of the Ministry of Interior and Justice, agreed to join efforts in creating a cultural satellite account.

2.3.1 *The Study by the Andrés Bello Convention and the Ministry of Culture*¹²

In the 1980s, some Latin American countries began to conduct studies on the economic contribution of culture, based on the progress made by UNESCO and the research undertaken in other countries such as Spain. One of the developments in this direction was the Economy and Culture Project, in which the Andrés Bello Convention advanced the economic measurement of the cultural sector, building an initial analysis of the cultural industries in the region, which included an approximation of their contribution to GDP.

To identify the cultural industries, the following were chosen:

- Their raw materials are creations protected by copyright and fixed upon a tangible or electronic support.

¹¹ Guidelines for the Sustainability of the National Culture Plan 2001-2010: Towards a Democratic Cultural Citizenship. Conpes Document 3262.

¹² Andrés Bello Convention-Ministry of Culture (2001). Economics and Culture. An Approximation of the Economic Impact of Cultural Industries in Colombia, Bogotá.

- They include cultural goods and services fixed upon tangible or electronic support and produced, stored and distributed in series with general massive dissemination.
- They have their own processes of production, distribution and social appropriation.
- They are articulated with the market and marketing logic, or have the potential to do so.

Finally, this initiative arises from the need to fill an information vacuum on cultural industries in Colombia, their characteristics, market, incentive mechanisms and role in the country's economy. The importance of this study lies in its being the first institutional effort to deepen our knowledge on these activities not only in Colombia but in other countries in the region, since the project looked into the status of cultural industries in other countries such as Bolivia, Chile, Peru and Venezuela.

The paper, *Impact of Cultural Industries in Colombia*, presented some findings related to the generation of value added for the period 1995-2001. To evaluate the economic impact of these industries, three types of activities were analyzed in this document:

"Type 1: Corresponds to activities linked to cultural sector production and to some other activities, which although they are not linked to production, are activities related to storing and archiving the past and the history, such as museums, libraries and archives.

Type 2 (Related I): Includes activities "indirectly and closely related to the previous group". Some are activities that involve the use and distribution of cultural creations such as marketing activities and other activities related with the processes of production, such as printing activities.

Type 3 (Related II): Includes key inputs required and the "vehicle of transmission" of previous groups. (Ministry of Culture - CAB 2003)."

In order to draw up this classification, ISIC coding and data from the National Directorate of Taxes (DIAN) were used. The study produced the following results:

Table 2. Value Added of the Cultural Industries

Year	Direct	Related I	Related II	Total
1995	988,448	759,923	237,674	1,986,045
1996	1,163,853	838,958	197,594	2,200,406
1997	1,415,767	976,172	223,845	2,615,784
1998	1,560,922	1,152,574	243,604	2,957,100
1999	1,633,766	1,159,736	277,773	3,071,275
2000	1,817,021	1,339,234	420,204	3,576,459
2001	1,869,877	1,584,763	351,112	3,805,752

Source: Colombia's Ministry of Culture – CAB 2003.

Table 3. Participation of the Cultural Industries in GDP

Year	Direct	Related I	Related II	Total
1995	1.2	0.9	0.3	2.4
1996	1.2	0.8	0.2	2.2
1997	1.2	0.8	0.2	2.1
1998	1.1	0.8	0.2	2.1
1999	1.1	0.8	0.2	2.0
2000	1.0	0.8	0.2	2.1
2001	1.0	0.8	0.2	2.0

Source: Colombia's Ministry of Culture – CAB 2003.

As can be seen later on, these estimates differ from those presented in this paper (the estimated share is about 3.8 per cent of GDP for 2000) for two main reasons. In the first place, the scope or the coverage were not the same, as this current study included a greater number of activities. Second, the methodology and data sources used were also different. The study by the Ministry of Culture and the Andrés Bello Convention used mainly the fiscal data of the companies reported in the DIAN, while this study included information from the Superintendency of Companies and DANE.

Finally, it must be emphasized that this previous study opened the way for other initiatives which seek to provide social and economic recognition of these industries such as the Cultural Satellite Account project developed by DANE.

2.3.2 Cultural Satellite Accounts

As previously mentioned, it was from this first Latin American endeavor by the Andrés Bello Agreement to measure the impact of the cultural sector in national economies that the recommendation emerged to create cultural satellite accounts in the countries of the region. These satellite accounts were conceived as economic measurement systems of culture under the national system accounts framework of the statistical departments or the central banks of countries included in this research.

In Colombia, the cultural satellite account (CSC) was developed from late 2002, supported by the Ministry of Culture, the Andrés Bello Convention and the National Copyright Directorate of Colombia. This concept has been introduced within the financial accounting systems with the goal of "expanding the analytical capacity of national accounts in a flexible manner, without overloading or distorting the central system". (DANE 2005)

In the CSC system, the cultural sector is "defined in a practical way, based on the guidelines adopted and developed by the economy and culture project of the Andrés Bello Convention. This does not only include activities such as arts, folklore or tangible and intangible heritage, but also other activities by social researchers and anthropologists, from which much of the cultural processes flow, such as television, radio, advertising, film or publication of books, magazines and newspapers". (DANE, 2004) This broad spectrum of activities is known as the cultural industries.

In the satellite account, cultural goods and services are not only accounted for from the time of their inception, but also from their production, distribution and marketing, which allows access to these goods. For this purpose, the following activities are selected and grouped according to the following categories:

Direct activities: these are strictly linked to the generation, production and dissemination of culture. They include publishing of books, magazines and newspapers, film production and exhibitions, music publishing and production, television and radio production, performing arts presentations, advertising, services offered by tangible and intangible heritage and research services in the humanities.

Related activities I: related to the production of main inputs required (goods and services that are needed in the production of direct activities such as the goods and services for radio and television transmission, printing services and paper) and distribution and marketing activities (music, books and video stores, or distributors of goods).

Related activities II: means of dissemination (screens, televisions, radios or VHS).

The study set out the following objectives (DANE, 2004a):

- to establish the magnitude of cultural activity and compare it with the national economy;
- to come up with instruments that contribute to all decision-making processes, and the definition and evaluation of cultural policies;
- to identify in the main framework the set of cultural activities and implement the measurement mechanisms of the national accounts system;
- to make available to the community (business organizations, creators, academia, etc.) reliable information on cultural activities;
- to achieve an economic measurement of culture that allows international and inter-sectoral comparisons;
- to provide information to identify the strengths and weaknesses of the various cultural activities from their economic dimension;
- to enrich the economic analysis of culture with non-monetary indicators.

The results of the CSC for the year 2000 are as follows:

Table 4. Value Added Cultural Activities, Year 2000

Publishing and printing	607,943
Radio, television and cable program transmission	144,858
Advertising, photography, and research and development	1,079,591
Recreational activities, cultural and recreational services	1,162,194
Museums	23,108
Artistic education	150,911
Government	116,632
Total Value Added Cultural Activities	3,285,237
Participation in GDP (%)	1.67

Source: Colombia's National Statistics Department.

These results are not comparable with those presented in this study because the activities that are included in each of the specific classifications adopted by the DANE in the Satellite Account differ in terms of the scope of the CBI. Despite sharing a set of common activities, the Satellite Account includes some cultural

and leisure activities that are not protected by copyright, which means a difference of content from specific industries given by WIPO (2003).¹³ The scope of the creative industries as determined by the intellectual property right is clearly expressed in the argument that "the need for an approximation based on copyright is of paramount importance, since it provides the proper conceptual framework for the identification, the compilation of statistics and their analysis." (WIPO, 2003)

With regard to the continuity of this account within the national accounts system, it was not possible in the documents reviewed to establish whether this product will have future sustainability. For the moment, only results for the period mentioned above are published.

¹³ This discussion on the definition and scope of cultural activities and copyright can be found in the study by Garcia, Zofio, Herrarte and Moral (2008).

3 Methodology for the Estimation of Value Added

The usual classification of industries involving copyright follows the categories proposed by WIPO (2003), and is divided into four groups:

1. The Core Industries

This category includes all industries that are dedicated entirely to the creation, production, representation, exhibition, communication or distribution and sale of material protected by copyright (music, literature, theatrical productions, film, media communication, visual arts, advertising services and collective copyright management).

2. The Interdependent Industries

These industries contribute to the production, manufacture and sale of equipment. Their function is to facilitate the creation, production and use of material protected by copyright (manufacture and sale of appliances such as televisions, computers and CD players, musical instruments and photographic equipment, etc.).

3. The Partial Industries¹⁴

Included in this category are some activities that are related or linked to material that is protected by copyright (such as jewelry, architecture, handicraft, etc.).

4. The Non-Dedicated Support Industries

These are based indirectly and marginally on materials protected by copyright, therefore their efforts are equally dedicated to other activities which are not interdependent (telephony, transport and wholesale and retail).¹⁵

Together these four groups are known as the copyright-based industries.

Table 5. WIPO List of CBI

Copyright Industry Sub-Groups	Activities
Core Copyright Industries	
Press and 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, news stands and libraries.)

¹⁴The element attributable to copyright varies depending on the protection granted by national legislation (WIPO 2005).

¹⁵The contribution of copyright to these industries is calculated on the basis of a specific factor (WIPO, 2005).

Copyright Industry Sub-Groups	Activities
Music, theatrical productions, opera	<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).
Motion picture and 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.
Radio and 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.
Photography	<ul style="list-style-type: none"> - studios and commercial photography; - photo agencies and libraries (photo-finishing labs should not be included).
Software and databases	<ul style="list-style-type: none"> - programming, development and design; - manufacturing, wholesale and retail pre-packaged software (business programs); - video games, educational programs etc.; - database processing and publishing.
Visual and graphic arts	<ul style="list-style-type: none"> - artists; - art galleries and other wholesale and retail; - picture framing and other allied services; - graphic design.
Advertising services	<ul style="list-style-type: none"> - agencies, buying services (the price of advertising should not be included).
Copyright collective management societies	(turnover should not be included)
Interdependent Copyright Industries	

Copyright Industry Sub-Groups	Activities
Manufacture, wholesale and retail (sales and rental) of:	<ul style="list-style-type: none"> - TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment and other similar equipment; - computers and equipment; - musical instruments.
Manufacture, wholesale and retail (sales and rental) of:	<ul style="list-style-type: none"> - photographic and cinematographic instruments; - photocopiers; - blank recording material; - paper.
Partial Copyright Industries	
Apparel, textiles and footwear Jewelry and coins Only that portion which is attributable to works and other protected subject matter should be included	<ul style="list-style-type: none"> - apparel, textiles and footwear; - jewelry and coins; - other crafts; - furniture; - household goods, china and glass; - wall coverings and carpets; - toys and games; - architecture, engineering, surveying; - interior design; - museums.
Non-Dedicated Support Industries	
	<ul style="list-style-type: none"> - general wholesale and retailing; - general transportation; - telephony and Internet.

Source: WIPO (2003). *Guide on Surveying the Economic Contribution of the Copyright Based Industries*.

3.1 Identification of the CBI in Colombia

Based on the experience of international studies and national legislation on the subject, and under the auspices of the National Copyright Directorate of Colombia, this study has proceeded to identify and classify Colombian industries which are directly or indirectly associated to industries under intellectual copyright protection. Likewise, it seeks to establish comparability with other countries especially in Latin America. Sources of information relevant to their measurement have been identified.

The details of these industries were originally developed under the Standard Industrial Classification (SIC) of the US, but based on the International Standard Industrial Classification (ISIC) (CIIU in Spanish). This system organizes information on companies and products in major groups such as construction, manufacturing and services, but these groups can be subdivided to achieve more detailed information, depending on the country.

Subsequently, up to 2002, this classification was even more customized for the US. The North American Industry Classification System (NAICS) was adopted to give a more detailed classification (six digits instead of four in the ISIC). The objective was to track the copyright industries more precisely. In this regard, reports prepared by the International Intellectual Property Alliance (Siwek, 2002) noted that the "focus of the new system is to bring together the industries that employ similar production processes... also, there will be 20 sectors instead of 10 in an attempt to capture better the transformation of the U.S. economy toward the service economy".

In view of these developments, it is necessary to highlight certain differences between Colombia and other countries, especially the US, on the structure of economic sectors that make up the CBI. In the US, interdependent industries such as the development and production of information technology, consumer electronic devices and computers are very important. In Colombia, these industries are undeveloped and their share in generating value added within the CBI is very low. This situation is confirmed by the behavior of foreign trade in Colombia, which shows a trade deficit due to imports of technological and electronic equipment.

As a control mechanism to define the scope of products of the CBI, a comparison was made with the items included in the studies for the US. Based on the ISIC classification in these studies, and for Colombia (ISIC adapted for Colombia), a correlation and validation were made and gave the following results.

Table 6. Correspondence between the ISIC and the ISIC adjusted for Colombia

	ISIC adjusted for Colombia	ISIC
Core	25	29
Interdependent	13	16
Partial	25	22
Non-Dedicated Support	35	20
Total	98	87

Figures indicate number of four-digit items.

Source: This study.

In a few cases, the descriptions of the items for the same headings at four digits between the two classifications were very different.¹⁶ In many cases, the items in the Colombian classification were disaggregated but not in the ISIC, which is why there is a significant difference in the number of industries considered in both cases.

Specifically, in this first phase, divisions, sectors and sub-sectors covered in the study, according to the ISIC and the National System of Employment, have been identified. This operational scope of the objective of the study was based on consultations with the National Copyright Directorate of Colombia. Under these definitions and classifications of the CBI, there were three types of observations:

- Activities with available data, which are the object of the study, are clearly delineated in the National Accounts and other statistics.

¹⁶ For example, the 5151 code in the US deals with wholesale of computers (wholesale of computers, computer peripheral equipment and software), but for Colombia, this item is "wholesale of solid fuels, liquid, gaseous and related products." Therefore, this item was approved for Colombia as code 5163.



- Activities included in larger groupings which have to be broken down.
- Activities which have no available data, and thus the need to identify potential sources of data (primary and secondary) and method of obtaining data (interviews, surveys, etc.). Where there are no reliable statistical data, reasonable estimates have to be used.

It is expected, then, that this first approximation will be refined, not only in terms of the number of industries considered (98), but also to the degree for which they are accounted, depending on whether such items can be disaggregated to avoid duplication and to enhance accuracy of measurement. The details of industries finally included can be found in Appendix I.

Table 7. Number of CBI in the ISIC adapted for Colombia

Core	Interdependent	Partial	Non-Dedicated Support	Total
25	13	25	35	98

Figures indicate number of four-digit items.
Source: This study.

3.2 Sources of Information

Estimates of the Value Added of the CBI are based primarily on secondary sources:

- Annual Manufacturing Survey (EAM) of DANE¹⁷
- Financial statements of the Superintendency of Companies
- National Household Survey
- Annual Survey of Services
- Annual Trade Survey
- DANE National Accounts
- Other sources: financial statements of Sayco-Acinpro

3.2.1 Annual Manufacturing Survey (EAM)

The EAM is an ongoing survey conducted by the DANE since 1956 and currently comprising the group of manufacturing establishments with 10 or more employees (both permanent and temporary). In 2005, this group comprised 7,524 establishments of which 2,526 (34 per cent) corresponded to the CBI in that year.¹⁸

From 1970 to 2000, the nomenclature of the EAM was based on ISIC revision 2. From 2001 onwards, this has been governed by ISIC revision 3. Given that the correspondence between the two revisions at four-digit disaggregation is not one to one, there was a wide variation in some items between 2000 and 2001, which can be attributed to this lack of correspondence.

For industrial manufacturing activities not covered by the EAM, there was no information available which was comparable with this survey. In the case of the CBI, it was necessary to use indirect methods of measurement.

3.2.2 Superintendency of Companies

The Superintendency of Companies is a government agency under the Ministry of Trade, Industry and Tourism, charged with the surveillance, inspection and control of corporations.

¹⁷ The National Statistics Department (DANE) is the entity responsible for the planning, collection, processing, analysis and dissemination of official statistics.

¹⁸ Or establishments with a production value equal to or greater than Col\$ 103 million in 2002.

This entity keeps relevant information on the financial status of companies with a minimum total income of Col\$2,000 million from all economic activities (2005). The variables included in the financial statements meet basic accounting criteria (cash, current assets, current liabilities, capital subscribed and paid, operational income, gross profit, etc.).

In 2005 the total number of companies registered was 19,729, of which 3,136 corresponded to CBI sectors. By 2000, the number of interdependent companies in the CBI was 1,517.

For the purposes of this study, relevant information based on operating income (OI) of service companies (in the service sector) is used. However, OI for some manufacturing companies in some sectors was taken into consideration to evaluate inconsistencies in the EAM.

3.2.3 System of National Accounts (SNA)

The System of National Accounts is managed by DANE and is based on the internationally applied System of National Accounts (1993). The information used in this present study relates to production accounts and income generation of economic activities, which were used as control variables for the results of the CBI. On the other hand, the implicit price index of GDP was used to deflate the value added series of the CBI at current prices.

3.2.4 Annual Survey of Services

This survey was first carried out by DANE in 1994 and its coverage has expanded in recent years. It includes post and telecommunications, advertising, information technology, temporary employment agencies and security services, and restaurants and employment services. The survey recorded data on employment, production, intermediate consumption and value added, among others. In this study, data were used for advertising and information technology sectors and related activities, which served to validate the estimates made based on the data from the Superintendency of Companies.

3.3 Measurement of Value Added (VA)

The value added corresponds to the value of final goods and services to the economy and is calculated by subtracting the value of inputs used (goods and services i.e. raw materials, fuel, energy, etc.) which are called intermediate consumption. The value added is denominated gross value added (GVA), when the amount of depreciation and consumption of fixed capital has not been subtracted, and net value added after deduction of these items.

For this study, the GVA was derived taking into account the availability of information from available sources.

3.3.1 Annual Manufacturing Survey

Companies included in the Annual Manufacturing Survey reported a considerable number of variables including total employees, gross output, intermediate consumption, GVA, gross fixed capital formation, and so on. Since the GVA is directly taken from this survey, there is no need to make estimates and thus the value of this variable reported by this survey is used.

3.3.2 Superintendency of Companies

In the case of the Superintendency of Companies, it is necessary to estimate the GVA, as it is not part of the information collected by this entity. The GVA is calculated based on the OI, which is used as a proxy for gross production (GP) used in national accounts, according to the following identities. This procedure is

covered in the Guide on Surveying the Economic Contribution of the Copyright-Based Industries (WIPO, 2003, pp. 49-50) in connection with supplementary statistics:

$$GP = IC + GVA \quad [1]$$

$$GVA = GP - IC \quad [2]$$

Where IC is the value of intermediate consumption (intermediate inputs). Given that it is not possible to calculate the GVA with identity [2] because the value of the intermediate inputs (raw materials, energy, leasing, packaging, transport, etc.) is not known, the GVA can be estimated with a coefficient β , according to the following equation:

$$\beta = GVA / GP \quad [3]$$

The coefficient β is similar to the concept of technical coefficients of input-output analysis, which can be expressed as the structural relationship between the production value of a particular good or service and the value of intermediate inputs used in such production. The value of coefficient β is directly proportional to the value of production and is considered to be stable in the short and medium term. Once the operational income is known, the GVA is then calculated using the formula:

$$GVA = OI * \beta \quad [4]$$

The coefficient β can be calculated from national accounts with the identity [3] for the economic activities (divisions and groups) listed below, according to the disaggregation of the SNA:

- Trade
- Land cargo transport
- Air cargo transport
- Water transport services
- Complementary and auxiliary transport services
- Post and telecommunications
- Services to business enterprises
- Association and recreational services

3.4 Adjustments to Calculate the GVA of Certain Transport and Trade Activities (copyright factor)

Given the transversal or general nature of the partial copyright industries and non-dedicated support industries, and given the difficulties in disaggregating existing statistics in Colombia (ISIC four digits) to quantify accurately the share of copyright in the value added and employment generation, it is necessary to estimate the contribution of these industries to the entire economy.

To reduce the risk of over-estimation, and following WIPO's methodology, a weight or copyright factor is assigned to value added and employment generation, which will represent the specific weight of copyright-protected activities within partial copyright and non-dedicated support industries.

In this sense, and in accordance with WIPO (2003) and Penyigey and Munkácsi (2005), the core and interdependent CBI groups do not require any adjustment once GVA and employment are estimated, as

their contribution to copyright is 100 per cent. On the contrary, the activities included in the partial copyright industries have a weight of between 0.5 per cent and 50 per cent over the total economic activity. Non-dedicated support industries primarily associated with distribution and marketing of copyright production, are assigned a factor of 5.7 per cent (Table 8).

In the present study, two methods have been employed to calculate or adjust the copyright factor of the CBI to guarantee that the weight of the partial and support industries are appropriately considered:

1. For the partial copyright industries, the adjustment factors of the Hungarian study were used (Penygey and Munkácsi, 2005). These are presented in the following table:¹⁹

Table 8. Adjustment Factors for the CBI

Description	Copyright Factor
Core	1.0
Interdependent	1.0
Partial	
Apparel, textiles and footwear	0.005
Jewelry	0.25
Other crafts	0.4
Furniture	0.05
Ceramic and glass articles	0.005
Wall covering and carpets	0.02
Toys and computer games	0.5
Architecture, engineering, surveying	0.1
Museums	0.5

Source: Penygey and Munkácsi (2005).

2. Part of the interdependent industries related to the manufacture of cellulose pulp, paper and paperboard (such as toilet paper, bags, etc.), is not associated with copyright generating activities. This is why, based on information from the Annual Manufacturing Survey, the value corresponding to paper pulp, toilet paper and manufacture of non-printed bags was excluded. The values for this sector for the period 1997-2004 were adjusted using the adjustment factor of 10 per cent to consider solely the production relating to activities considered to be cultural.
3. For the non-dedicated support industries (trade, transport, post and telecommunications) a procedure based on coefficients of the input-output matrix (IOM) was used to estimate the proportion of industrial manufacturing activities classified as core and interdependent-related industries in the CBI in trade and transport, and core and interdependent industries in the CBI plus the partial industries' participation in post and telecommunications. This is explained in Annex 3.

¹⁹The Mexican study used a simple average of the weights used in the estimates of the US (Siwek, 2004) and Hungary (Penygey, et al., 2005). The reason given by the authors, in the case of the US, is the use of a common information system and the links between the US and Mexican economies. Also, the use of weights from the Hungarian model is justified for a middle-income country like Mexico (Márquez et al., 2006).

The coefficients obtained with this method are presented in Table 9, which are multiplied by the GVA of each industry for the respective year.

Table 9. Input-Output Coefficients for the Support Industries

	2000	2001	2002	2003	2004	2005
Colombia. IOM Coefficients (U) for CBI land transport (row vector)						
Total	0.0122	0.0126	0.0125	0.0118	0.0121	0.0277

	2000	2001	2002	2003	2004	2005
Colombia. IOM Coefficients (U) for CBI air transport (row vector)						
Total	0.0202	0.0288	0.0280	0.0261	0.0288	0.0635

	2000	2001	2002	2003	2004	2005
Colombia. IOM Coefficients (O) for CBI wholesale and retail trade (column vector)						
Total	0.0769	0.0707	0.0704	0.0721	0.0553	0.0516

	2000	2001	2002	2003	2004	2005
Colombia. IOM Coefficients (U) for CBI post and telecommunications (row vector)						
Total	0.0290	0.0335	0.0323	0.0343	0.0362	0.0358

Source: This study, based on figures from Colombia's National Statistics Department.

3.5 Treatment of Informal Sectors

The employment surveys, whose observation unit is the home, are done at national level and allow the quantification of employment in informal activities, in particular self-employment. The national surveys allowed the calculation of the value added of some informal activities (musicians, handicrafts, etc.), by obtaining the employment numbers and the average income for each activity.

3.6 Deflators

To convert the value added of copyright-generating industries to real prices, implicit deflators of the National Accounts were used for 20 industrial and service sectors (Table 10).

Table 10. Implicit Prices in National Accounts for the CBI, Base Year 1994 = 100

Code National Accounts	Description	2000	2001	2002	2003	2004	2005
22	Yarn and thread; woven and tufted textile fabrics	151.4	155.9	157.0	173.7	184.4	202.5
23	Textile articles other than apparel	194.6	204.5	207.9	222.8	244.0	250.5
24	Knitted or crocheted fabrics; wearing apparel	204.9	214.5	217.3	227.5	245.6	252.2
25	Leather and leather products; footwear	230.9	262.7	270.5	280.1	287.5	287.2
26	Products of wood, cork, straw and plaiting materials	226.6	261.3	303.9	325.8	355.6	370.1
27	Pulp, paper and paper products	161.3	162.8	169.5	189.3	203.0	204.7
28	Printed matter and related articles	255.9	264.6	280.9	310.7	326.3	336.0

30	Basic chemicals and other chemical products	222.7	226.4	239.4	270.9	291.7	312.7
32	Glass and glass products and other non-metallic products n.e.c.	233.7	246.0	262.4	286.8	293.7	286.4
33	Furniture; other transportable goods n.e.c.	175.4	176.2	182.8	216.7	226.5	235.2
35	Basic metal and fabricated metal products, except machinery and equipment	230.2	244.7	272.1	318.8	378.5	404.6
37	Electrical machinery and apparatus	173.6	177.7	190.0	208.8	220.0	234.6
41	Wholesale and retail trade services	232.4	243.6	256.7	269.4	274.7	279.4
44	Land transport services	194.8	219.4	236.0	255.8	284.0	306.2
45	Water transport services	188.9	196.0	201.1	214.6	231.3	226.0
46	Air transport services	238.8	262.1	277.1	309.8	347.0	392.9
47	Supporting and auxiliary transport services	221.0	234.2	239.2	253.5	253.1	259.4
48	Post and telecommunication services	232.2	264.4	274.6	286.6	308.9	317.7
51	Business and production services	220.0	242.0	252.8	269.6	288.3	307.2
Code National Accounts	Description	2000	2001	2002	2003	2004	2005
55	Services of organizations; recreational and other market services	246.5	263.7	276.8	291.9	311.0	327.1
GDP		235.2	249.9	264.5	286.1	307.7	325.2

Source: National Accounts.

Table 10 shows the relative increase in price of three service activities (air transport services, post and telecommunication services and recreational association services) and four industry activities (print and similar articles, wood products, cork and straw, leather products and base metals) which may explain the higher contribution of the CBI to the value added in constant prices.²⁰

²⁰ The study does not go deeper into the determinants of the growth in sectoral prices.

4 Results of this Study for Colombia

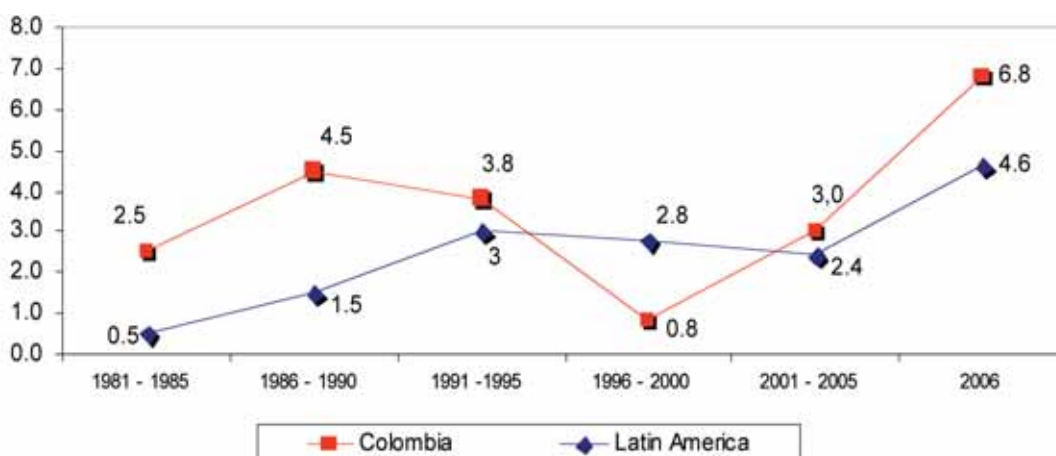
The results of the quantification of the economic contribution of the copyright-based industries to the value added output (GDP), foreign trade (exports and imports) and employment in Colombia during the period 2000-2005, are presented below.

In this context, the following paragraph presents a brief description of the structure and the evolution of the Colombian economy during the period 2000-2005.

4.1 Performance of the Colombian Economy

Throughout the 1980s, the Colombian economy was characterized by its stability and major growth in contrast to the slack performance of other Latin American economies, which were overwhelmed by debt crises. During this period, Colombia grew at a rate of 3.7 per cent while average growth for Latin American countries during this decade was only 1.1 per cent (Chart 1).

Chart 1. Five-year Growth of GDP



Sources: CEPAL and DANE.

In the following decade, the liberalization of the Colombian economy created conditions for major growth. In 1990, the economy was growing at 2.1 per cent, but with the influx of capital investment, high growth of internal private debt, increase in public expenditure and strong demand, the economy experienced robust expansion at a rate of 4 per cent during the period 1991-1995. This performance slightly outperformed the Latin American growth average.

However, this progressive situation was quickly reversed, resulting in a negative growth rate of 4.2 per cent in 1999, the lowest level in Colombian economic history. The revaluation of the Colombian currency, high interest rates, capital flight and international instability explain the Colombian economic crisis at the end of the 1990s.

Efforts to guarantee macroeconomic stability, progress made in the implementation of structural reforms and the strong dynamism of external demand attributable to a favorable international environment, allowed the Colombian economy to recover in 2000, experiencing a growth rate of 2.9 per cent. From 2003 onwards, the economy was growing at rates higher than 4 per cent, and in 2006 it reached 6.8 per cent, a record in the last quarter century. These growth rates greatly exceeded the average in the region (Chart 1).

Table 11. Total GDP and GDP per capita

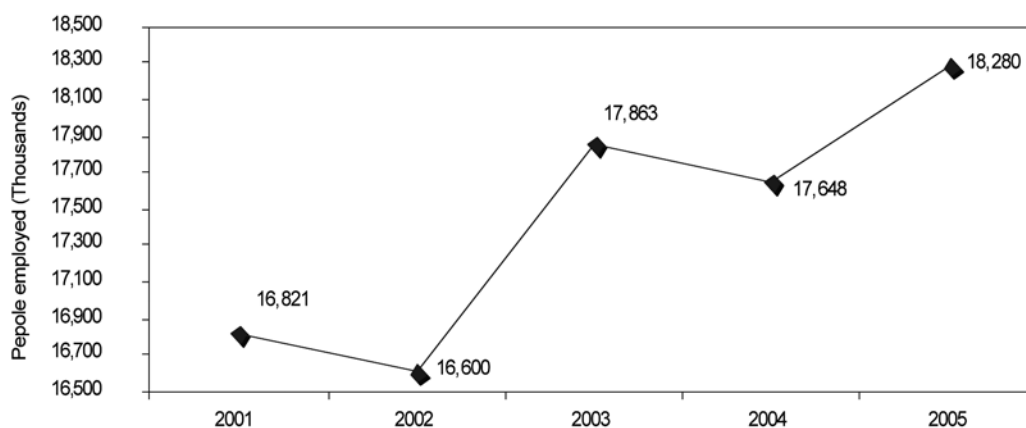
Millions of US\$ and 1994 prices

	2000	2001	2002	2003	2004	2005
GDP total US\$	83.786	81.990	81.122	79.407	98.143	122.939
GDP per capita US\$	1.980	1.904	1.851	1.781	2.165	2.670
GDP total US\$ base 1994	89.968	91.292	93.057	96.647	101.351	106.136
GDP per capita US\$ base 1994	2.126	2.120	2.123	2.168	2.236	2.305

Source: This study, based on figures from Colombia's National Statistics Department and Central Bank.

This sustained growth led to the decline in urban unemployment from 16 per cent in 2000 to 12.2 per cent by the end of 2005. Similarly, during the same period, the poverty level of the country went down from 56 per cent in 2000 to 49 per cent in 2005.

Chart 2. Employment Trends 2001–2005



Source: DANE

4.2 Structure of the Colombian Economy

In the course of the last two and a half decades, the Colombian economy has experienced an important and profound process of structural change, where the service sector now leads the production sector (46 per cent), followed by industry (14.7 per cent), agriculture (13.4 per cent) and construction (5 per cent). In this structural composition, there are four aspects that can be emphasized: i) the constant participation of the service sector (starting in the mid-1970s, it already represented 40 per cent); ii) the loss of participation of the agricultural sector (17 percentage points with respect to 1975); iii) the stable participation of the industrial sector (14 per cent); iv) the emergence and increase in the mining sector from the mid-1980s.

Table 12. Percentage Distribution of GDP by Economic Activity, 2000-2005

Economic Activity	2000	2001	2002	2003	2004	2005
Agriculture, hunting, forestry, fishing	14.4	14.2	13.9	13.8	13.7	13.4
Mining	4.9	4.6	4.4	4.9	4.8	4.7
Electricity, gas, water	3.1	3.2	3.1	3.1	3.0	3.0
Manufacturing	14.4	14.4	14.5	14.6	14.9	14.7
Construction	4.0	4.1	4.5	4.9	5.2	5.5
Wholesale, retail trade, restaurants and hotels	10.6	10.7	10.7	10.9	11.0	11.5
Transport, storage and communication	7.9	8.1	8.1	8.1	8.1	8.1
Financing, insurance, business and production services	17.3	17.5	17.5	17.8	17.8	17.5
Community, social and personal services	21.0	20.8	20.4	19.6	19.2	19.0
Financial intermediary services	3.9	4.0	3.8	4.1	4.4	4.5
Total Value Added	93.7	93.5	93.4	93.4	93.3	92.8
Taxes less subsidies on products	6.3	6.5	6.6	6.6	6.7	7.3
Gross Domestic Product	100	100	100	100	100	100

Source: Colombia's National Statistics Department.

Table 13. GDP at Constant Prices by Economic Activity, 2000-2005

Economic Activity	2000	2001	2002	2003	2004	2005
Agriculture, hunting, forestry, fishing	10,725	10,686	10,699	10,992	11,452	11,779
Mining	3,653	3,430	3,413	3,880	4,001	4,120
Electricity, gas, water	2,321	2,392	2,411	2,463	2,530	2,611
Manufacturing	10,723	10,866	11,148	11,649	12,461	12,948
Construction	2,967	3,082	3,463	3,922	4,346	4,863
Wholesale, retail trade, restaurants and hotels	7,861	8,106	8,259	8,709	9,238	10,105
Transport, storage and communication	5,877	6,112	6,259	6,440	6,788	7,134
Financing, insurance, business and production services	12,877	13,165	13,474	14,240	14,882	15,407
Community, social and personal services	15,578	15,691	15,650	15,625	16,053	16,698
Financial intermediary services	- 2,916	- 2,989	- 2,939	- 3,285	- 3,675	- 3,989
Total Value Added	69,667	70,540	71,835	74,636	78,076	81,675
Taxes less subsidies on products	4,697	4,918	5,082	5,249	5,637	6,388
Gross Domestic Product	74,364	75,458	76,917	79,884	83,714	88,063

Source: Colombia's National Statistics Department.

Table 14. GDP Growth Rate by Economic Activity, 2000-2005

Economic Activity	2000	2001	2002	2003	2004	2005
Agriculture, hunting, forestry, fishing	3.8	-0.4	0.1	2.7	4.2	2.9
Mining	-10.3	-6.1	-0.5	13.7	3.1	3.0
Electricity, gas, water	0.9	3.0	0.8	2.2	2.7	3.2
Manufacturing	11.8	1.3	2.6	4.5	7.0	3.9
Construction	-3.9	3.9	12.4	13.3	10.8	11.9
Wholesale, retail trade, restaurants and hotels	7.3	3.1	1.9	5.4	6.1	9.4
Transport, storage and communication	1.5	4.0	2.4	2.9	5.4	5.1
Financing, insurance, business and production services	-1.0	2.2	2.3	5.7	4.5	3.5
Community, social and personal services	0.6	0.7	-0.3	-0.2	2.7	4.0
Financial intermediation services	-15.1	2.5	-1.7	11.8	11.9	8,5
Total Value Added	3.1	1.3	1.8	3.9	4.6	4.6
Taxes less subsidies on products	-0.1	4.7	3.3	3.3	7.4	13.3
Gross Domestic Product	2.9	1.5	1.9	3.9	4.8	5.2

Source: This study, based on GDP at constant price figures from Colombia's National Statistics Department.

4.3 CBI Generation of Value Added

This section seeks to study the economic contribution of the CBI to the gross national value added.

4.3.1 Trends of the Value Added of the CBI

As shown in Table 15, the total gross value added (GVA) of the CBI in Colombia represented Col\$9.5 millions of millions in the year 2005 and Col\$5.7 millions of millions in 2000.

Table 15. CBI Value Added, 2000-2005

	Thousand millions of Col\$					
	2000	2001	2002	2003	2004	2005
At Current Prices						
GDP Colombia	174,896	188,559	203,451	228,517	257,746	285,313
Total CBI	5,732	6,092	6,824	7,669	8,458	9,531
Core	3,077	3,345	3,760	4,215	4,656	5,330
Interdependent	1,524	1,576	1,731	1,982	2,148	2,260
Partial	440	484	532	572	668	727
Non-Dedicated Support	691	688	801	901	986	1,214

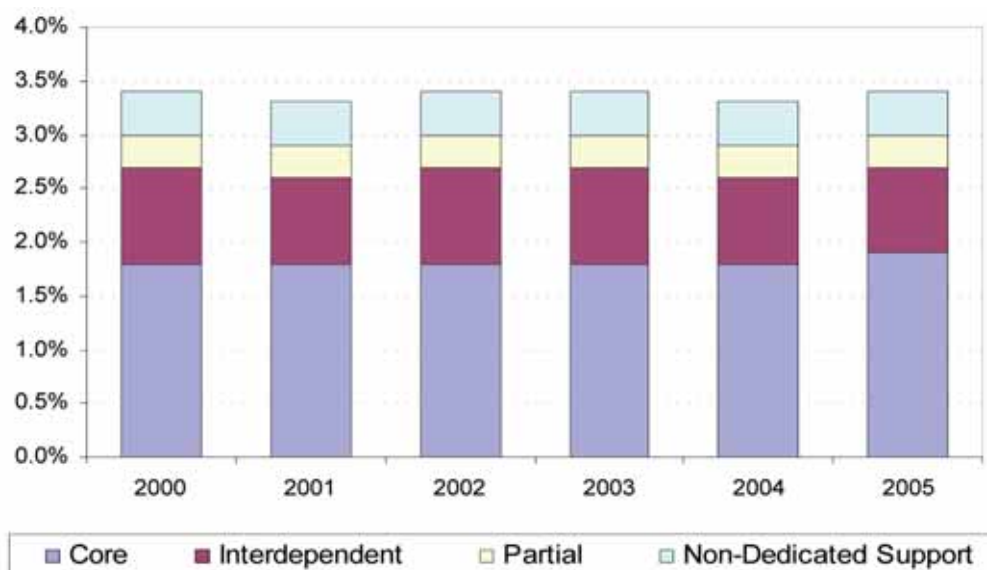
²⁰ Approximately 4.800 million US dollars in 2005.

At 1994 Prices		Thousand millions of Col\$				
GDP Colombia	74,364	75,458	76,917	79,884	83,772	87,728
Total CBI	2,417	2,427	2,582	2,675	2,798	3,053
Core	1,277	1,295	1,388	1,446	1,510	1,669
Interdependent	627	632	658	678	700	713
Partial	207	213	215	209	222	232
Non-Dedicated Support	307	287	321	342	366	439

Participation in GDP						
GDP Colombia	100	100	100	100	100	100
Total CBI	3.3	3.2	3.4	3.4	3.3	3.3
Core	1.8	1.8	1.8	1.8	1.8	1.9
Interdependent	0.9	0.8	0.9	0.9	0.8	0.8
Partial	0.3	0.3	0.3	0.3	0.3	0.3
Non-Dedicated Support	0.4	0.4	0.4	0.4	0.4	0.4

Source: This study.

Chart 3. Contribution of the CBI to GDP, 2001-2005 (%)



Source: This study.

In real terms, that is, discounting price increases, the GVA of the CBI increased from Col\$2.4 millions of millions in 2000 to Col\$3.1 millions of millions in 2005 (at 1994 prices), as shown in Table 15.

Table 16. Real Growth Rates of GDP and the CBI in Colombia

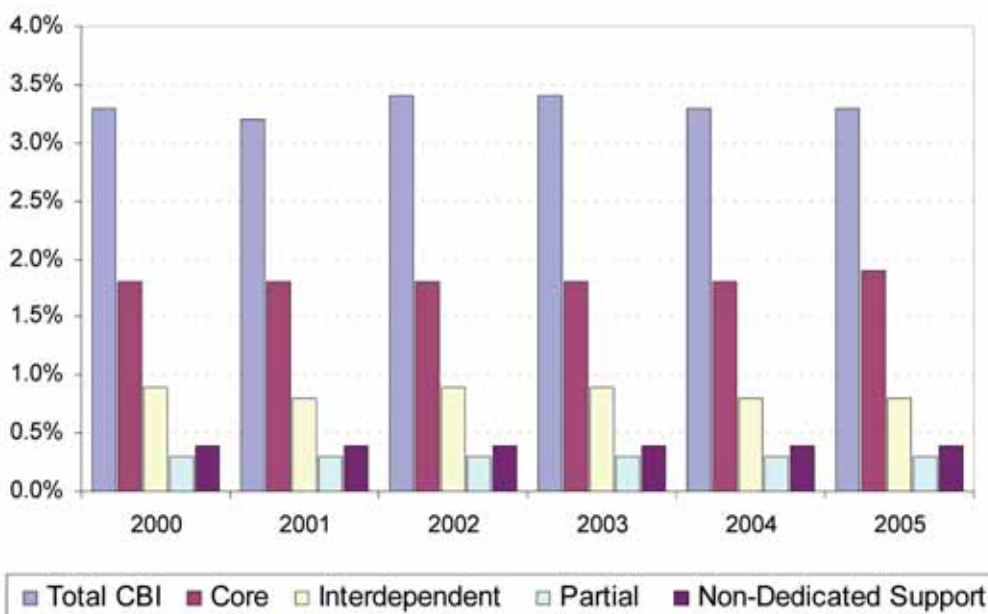
	2001	2002	2003	2004	2005
GDP Colombia	1.5	1.9	3.9	4.8	5.2
Total CBI	0.4	6.4	3.6	4.6	9.1
Core	1.4	7.2	4.2	4.5	10.5
Interdependent	0.9	4.1	3.0	3.2	1.9
Partial	2.7	1.3	-2.9	6.0	4.6
Non-Dedicated Support	-6.3	11.6	6.7	7.1	19.9

Source: This study.

Using the total Colombian GDP as a reference, the average contribution of CBI was 3.3 per cent in the period studied. This participation showed minimal variation, from a 3.2 per cent share in 2001 to a maximum of 3.4 per cent for 2002 and 2003, as shown in Chart 3. With regard to the other sectors of the Colombian economy, in 2005 the share of the CBI in GDP was higher than the participation of crude oil extraction (3.2 per cent), the agri-food industry (3.2 per cent) and the generation of electricity and gas (3.2 per cent).

The relative growth of the CBI implies that these activities have been growing at a faster pace than the entire Colombian economy. Figures show that the average annual growth rate of GDP during the period 2000-2005 was 3.4 per cent, while that of the CBI was 4.8 per cent.

Chart 4. The CBI Contribution to GDP, 2000-2005 (%)

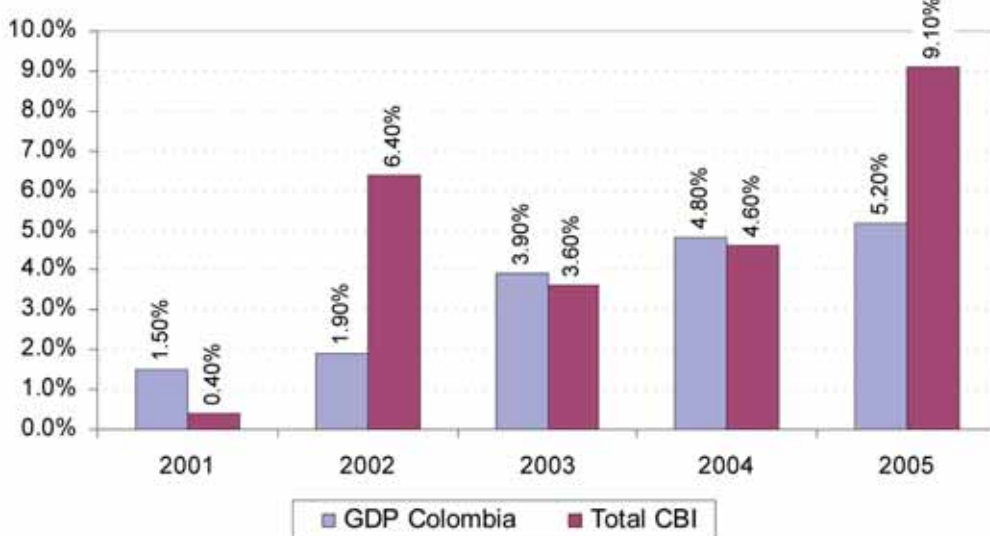


Source: This study.

The performance of CBI can also be seen in Chart 5, which shows the annual percentage change of the real GDP and GVA of the CBI (at 1994 Col\$ prices). As can be observed for the given period, the CBI performed better compared with the entire economy, behavior that can be explained by the growing importance of activities related to information technology, television, publicity and the sales trends of technological articles or products.

This growth coincides with the country's economic recovery after a period of low growth at the end of the previous decade, and with the deepening of the process of internationalization of the Colombian economy, which is demonstrated in the unprecedented growth of foreign investment in several sectors including, among others, those related to the CBI such as, telecommunications, radio, television and publications.

Chart 5. Real Growth of GVA, 2001-2005 (%)



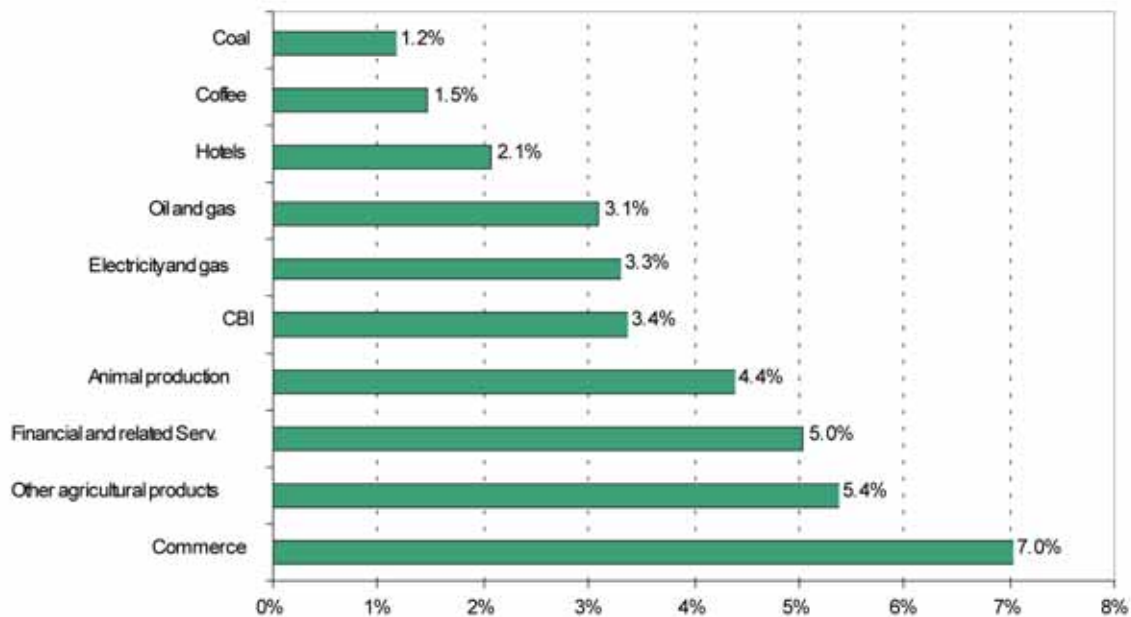
Source: This study.

4.4 The CBI in the National Context

In order to illustrate the economic importance of the CBI in the national context, Chart 6 presents a comparison of the contribution of these activities with other important sectors of the economy to GDP.

The CBI have a share similar to that of electricity and gas, slightly higher than the contribution of crude oil and natural gas extraction and more than double that of coffee and coal. The latter comparison emphasizes the importance of the CBI in national output since coffee and coal are two important Colombian products, which have a significant share in the global market. The CBI share is overtaken, however, by sectors in the service industry such as finance and trade. In the primary sector, it is also overtaken by some agricultural products and animal rearing.

Chart 6. Average Contribution of Selected Economic Sectors to GDP, 2001-2005)



Source: This study, based on DANE.

4.5 International Comparisons (GVA and Employment)

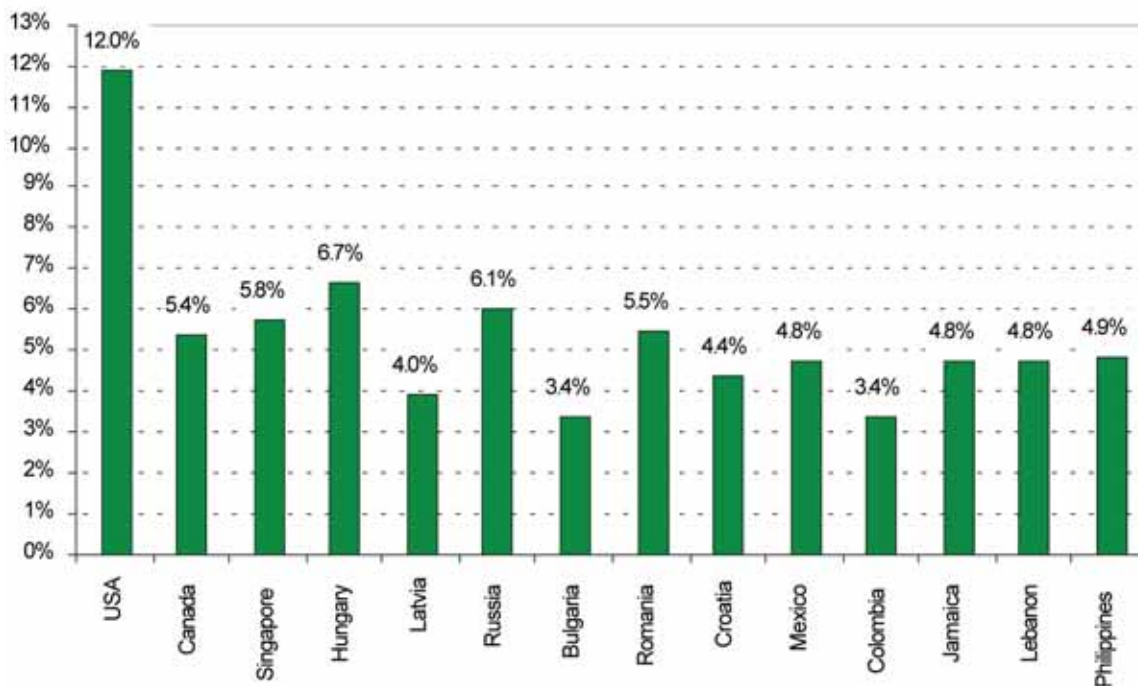
Recently, several similar studies have been carried out in different countries based on the WIPO Guide, which allows for country comparisons based on a common methodology. In view of this, comparisons are made between Colombia and other countries on the CBI contribution to GDP and to employment.

Chart 7 shows a comparison of the contribution of the CBI to GDP. As can be seen, the US makes the highest contribution at 12 per cent, followed by Hungary with almost 7 per cent. It should be noted that the US belongs to the group of countries with high GDP *per capita* and Hungary to those with average GDP *per capita*.²² Other countries with high percentages are Russia and Romania, which also belong to the average GDP *per capita* group, and Canada, which pertains to the top category of GDP *per capita*.

²² The GNI per capita and the classification of countries according to the level of this indicator (upper and middle), calculated according to the Atlas method of the World Bank.



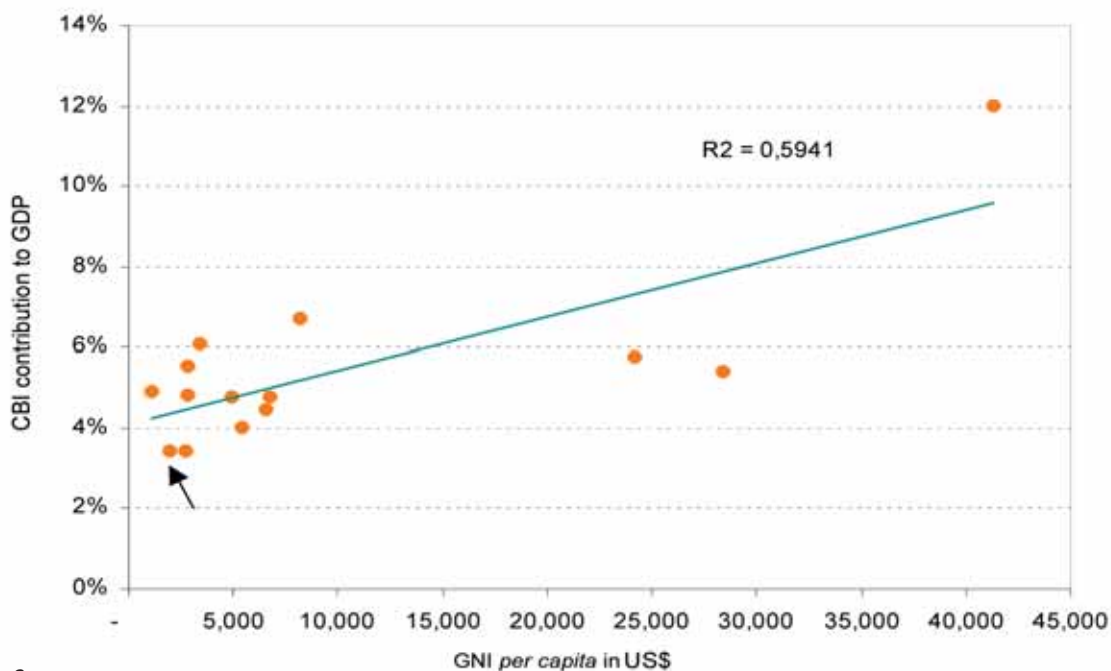
Chart 7. Selected Countries: CBI Contribution to GDP (recent years)



Source: This study, based on other WIPO studies.

A simple correlation exercise for the countries in the previous chart, between the GNI *per capita* and the CBI contribution to GDP, demonstrates a direct relation between these two indicators, that is to say, that high GDP *per capita* results in a high contribution by the CBI, as shown in Chart 8.²³ The arrow in the graph indicates the position of Colombia, which has the same share as Bulgaria but has lower GNI *per capita*.

Chart 8. Selected Countries: CBI Contribution to GDP vs. GNI *per capita* (recent years)



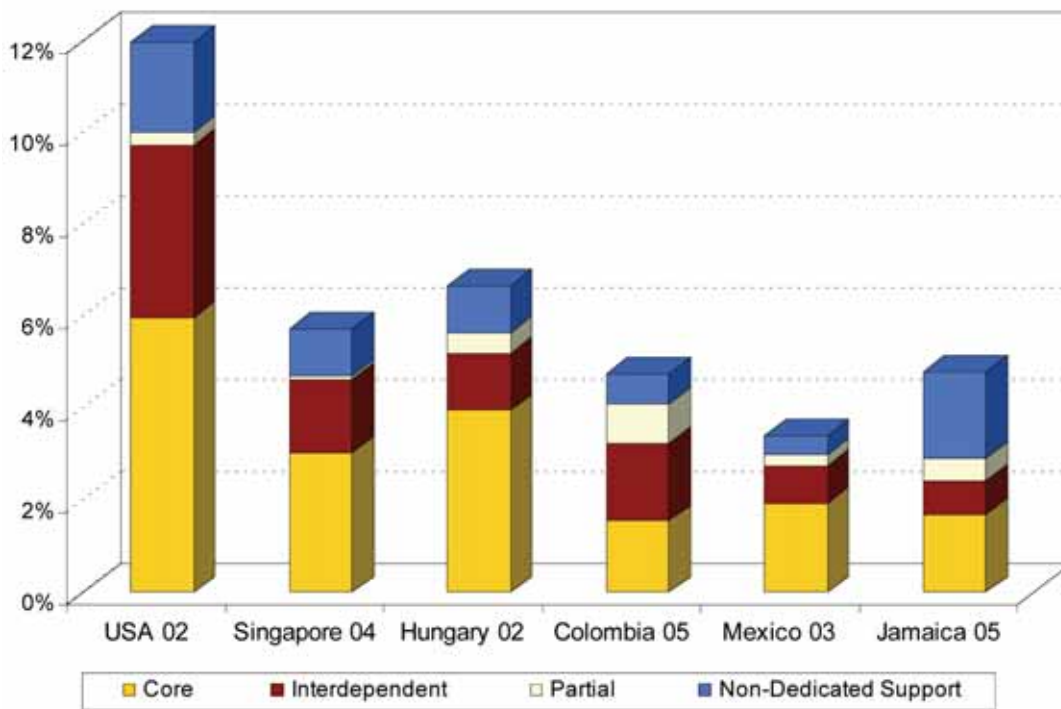
Sources:
This study, based on WIPO studies and World Bank statistics.

²²The R^2 is 0.59 in this exercise: however, if this is calculated using GNI per capita calculated according to the PPP (purchasing power parity) the coefficient is 0.56.

Finally, Chart 9 compares the contribution of the four CBI categories to GDP for the following countries: Colombia, Hungary, Jamaica, Mexico, Singapore and the US.

In countries with high GDP *per capita*, such as Hungary, Singapore and the US, 50 per cent or more of the CBI correspond to the core industries, with Hungary in the lead with 59 per cent. In Colombia, the contribution of this group is high (57 per cent), and in other countries with average GDP *per capita*, such as Jamaica and Mexico, this share is about 33 per cent.

Chart 9. Selected Countries: CBI Contribution by Group to GDP (recent years)



Source: This study, based on WIPO studies.

4.6 CBI Structure

The following section presents an analysis of the economic contribution of the different CBI groups, emphasizing their structure and evolution during the period 2000-2005.

4.6.1 Core Industries

In 2005, the core industries generated Col\$5.330.000 million, which represented 1.9 per cent of Colombian GDP. The core activities consist of 25 sectors (ISIC revision 3 in four digits), of which publication of newspapers, journals and periodicals represent 17.3 per cent of the total value generated by this group. In order of importance, this is followed by radio and television with 15.2 per cent, printing services at 13.7 per cent, retail sales in specialty shops at 8.4 per cent, and information technology at 7.6 per cent. These activities account for 62 per cent of the total value of the core industries while the remaining 38 per cent is distributed among the 20 other sectors as shown in Table 17.

This distribution contrasts with that of Hungary (Penygey and Munkácsi, 2005), where the software and database industries, together with press and literature, represented 64 per cent of the total core activities in 2002. In Mexico in 2003, press and literature, radio and television registered 61 per cent of this core group (Márquez-Mees, Ruiz and Yaber, 2006).

Table 17. Value Added Composition of the Core Industries, 2000-2005

		2000	2001	2002	2003	2004	2005
	Sub Total Core Industries	100	100	100	100	100	100
ISIC							
2211	Publishing of books, brochures and other publications	9.6	9.8	8.7	8.1	5.1	4.5
2212	Publishing of newspapers, journals, and periodicals	17.7	18.2	18.5	17.6	18.2	17.3
2213	Music publishing	1.1	1.1	0.9	1.1	0.6	0.5
2219	Other publishing	0.6	0.6	0.5	0.4	0.2	0.1
2220	Printing	9.4	9.6	8.8	12.1	15.1	13.7
2231	Art, design and composition	0.0	0.0	0.0	0.1	0.1	0.1
2232	Photo mechanic and related services	0.2	0.2	0.2	0.3	0.4	0.4
2233	Binding of printed sheets	0.1	0.1	0.1	0.0	0.0	0.0
2234	Finishing and laminating	0.0	0.0	0.1	0.1	0.1	0.1
2239	Other publishing related services n.e.c.	1.5	1.5	0.6	0.7	0.4	0.8
5239	Other retail sale in specialized stores	6.5	6.9	8.2	7.9	7.7	8.4
7210	Consultancy on IT systems	1.5	1.7	2.8	1.8	1.2	2.2
7220	Production of IT software	6.9	7.2	5.4	6.0	7.1	7.6
7230	Data processing	1.3	1.2	1.5	1.4	1.2	2.3
7430	Advertising	5.8	4.9	6.5	7.3	7.6	7.3
7494	Photographic activities	1.9	1.4	1.6	1.6	1.5	1.8
9112	Activities of professional organizations	0.1	0.1	0.1	0.1	0.1	0.1
9211	Motion picture and video production and distribution	0.5	0.4	0.4	0.4	1.3	1.2
9212	Motion picture projection	1.7	1.9	2.3	1.6	1.2	1.6
9213	Radio and television activities	16.6	15.9	15.7	15.3	15.3	15.2
9214	Dramatic arts, music and other arts activities	7.9	8.0	7.7	7.4	7.2	6.7
9219	Other entertainment activities n.e.c.	1.1	1.0	1.4	1.2	0.9	1.2
9220	News agency activities	0.1	0.1	0.1	0.1	0.1	0.1
9231	Library and archive activities	0.2	0.2	0.2	0.2	0.2	0.2%
9249	Other recreational activities	7.8	7.9	7.6	7.3	7.1	6.6%

Source: This study.

It is important to note that given the increase in the integration of activities on the part of companies, the figures presented in the previous table must be interpreted with caution, particularly concerning advertising activities, publication of newspapers, journals and periodicals and communication media, in which the operational incomes of the companies originate from activities which correspond to different sectors.

For example, newspapers, journals and periodicals generate a good proportion of their income from the sale of advertising and not only from the sale of the newspapers, journals and periodicals themselves. In addition, the inclusion of electronic media such as web pages is changing the way companies work and earn their income.

Advertising

On the advertising side, important changes have likewise occurred in recent years. Among those worth mentioning are the emergence of dedicated media centers, the change in advertising strategy and the search for alternative channels to reach clients, which have changed advertising activities. Until recently, the approach was more focused toward mass communication. Today, however, strategies are much more segmented to seek out more specialized markets and produce a more effective strategy.

One of the important changes in this business relates to the selection of appropriate means adapted to the objectives of every campaign or target market. Today, direct advertising using printed media (inserts), on-site campaigns (large areas and supermarket chains), the Internet and other innovative methods have led to substantial changes in this activity.

On the other hand, the opening of economies and free trade agreements are forcing local companies to strengthen their image and brands to face increasingly aggressive competition. This has led to major investment in advertising activities in order to maintain their markets.

In the coming years, the expansion of digital services in all activities related to publication and media will continue to entail change and generate new challenges for the adequate quantification and monitoring of some CBI activities.

The advertising sector is composed of relatively few companies (28 in 2005) and has exhibited significant growth in the period covered, with their operational income more than doubling in these years. This growth is associated with the performance of the economy for this period and with the expansion in the telecommunication and information technology sectors.

Television and Radio

The television and radio sectors have likewise shown a positive performance in the period studied. This sector has undergone major change, consolidation of two existing private television channels (Caracol and RCN), and an internationalization process through the establishment of affiliations with multinational companies (Telemundo, Univisión, Globo Television), which has converted Colombia into an exporter of content for the Latin-American and the Spanish-speaking market in the US. The companies mentioned, in addition to being proprietors of two existing private channels, are two of the biggest television producers, who, together with RTI and TELESET, form part of the top companies producing and exporting these types of products.

This activity will also see important changes in the coming years, given that the bidding process to increase the number of private channels in the country has started.

On the other hand, television companies by subscription or cable have shown dynamic growth in the last decade. It is estimated that for 2007, there were 1.6 million subscribers in Colombia, according to figures from the National Commission on Television, with a growth rate close to 300,000 in the past year.²⁴ The reason for this growth is the entry in the national market of the multinational TELMEX, which has acquired major companies in Colombia and has increased the additional services offered by these companies (Internet, information and telephony). Moreover, another Spanish multinational company, TELEFONICA, which acquired the government-owned TELECOM, began to compete in the market, generating price decreases and increasing the number and quality of the services offered. As a result, and in order to challenge competition from these multinationals, the other companies have responded by expanding their coverage and services that are protected by regulatory instruments, which seek to avoid a market monopoly.

In general, the entire telecommunication and information technology sector in Colombia, as in the rest of the world, has been one of the more dynamic sectors in recent years not only because of new technological developments, but also because of changes in the regulations, the increase in the privatization process, the participation of foreign capital investment and the increase in the use of these new technologies.

Publishing and Printing

The publishing and printing sectors are primarily composed of the following activities: publication of periodicals, publishing of books and printing. The first two activities are dominated by a small number of large companies (48 establishments in 2005) dedicated to the publication of major newspapers, journals and periodicals circulated nationally. Likewise, the book publishing and printing sector is made up of a small number of large companies (60 establishments in 2005), among others, the Carvajal Group, Panamericana, LEGIS and Editorial Planeta, capturing more than 70 per cent of the market.

Printing activities can be divided into two main groups of companies given their level of informality. On the one hand are the 170 major companies in 2005, including the Carvajal Group, which is the leading company in this sector in Colombia. Then there is the group composed of a large number of informal and small-scale enterprises.

The Computer Industry

There were 23 registered companies in the computer industry in 2005. In this group are representatives or subsidiaries of multinational companies such as UNYSYS, MICROSOFT, ORACLE, SAP, PEOPLE SOFT, among others. Most of the existing companies are dedicated to offering solutions to large and medium-scale companies and are not geared towards the mass market for household consumption. The computer industry market is characterized by the increase in consultancy services in information technology and by the decrease in software development, a sector in which competition against the large multinationals has become difficult. Increasingly, fewer companies are dedicated to the development of software applications and in contrast there is a growing market for advisory or consultancy services for the implementation of platforms developed by the main companies to satisfy the needs of large and medium-sized enterprises. The local companies engaged in software development do not have the means to make economies of scale to underwrite the enormous investment required by the dynamics of information technology.

Specialized Trade

One of the key activities in the core industries is specialized trade, which is associated with the performance and penetration of new information technologies in Colombian households and companies. The main

²⁴Up to four years ago it was not known exactly how many people received paid television. While studies of media consumption estimate up to 76 per cent, advertisers calculate this at 65 per cent and official figures place it at 50 per cent of Colombian households (*El Tiempo*, February 18, 2008).

companies in this sector are dedicated to the sale of computers, electronic equipment for domestic use and software. This sector has experienced significant growth during the period studied, as explained by increased computer usage, and the widespread penetration of information technology. Likewise, the continued appreciation of the local currency has led to a decline in relative prices of imported goods and has therefore increased the demand for these goods. Also, the rapid rate of obsolescence in technology has made this one of the most dynamic activities in the CBI.

In this sector, it is also important to emphasize the results of efforts against smuggling, which have led to a significant change in the structure of specialized trade. Until a few years ago, a formal trade specializing in domestic electronic equipment and computers was non-existent. However, due to the liberalization of the market, smuggling of this type of product is very low.

In general, rapid technological change and the strong market penetration of new information technologies were identified as the major factors revitalizing the core industries within the CBI. In the future, technologies such as the Internet, wireless connectivity, the integration of services and the decrease in the relative prices of technological and access services will determine the pattern of development and integration of the core activities. Likewise, the new technologies will generate permanent challenges for the monitoring of legal and illegal activities and the development of new ways of doing business.

4.6.2 The Interdependent Industries

In the interdependent industries, the production of pulp, paper, articles of paper and paperboard represented more than 60 per cent of the value added generated in 2005, as shown in Table 18. This composition differs from that of other countries where the manufacture of electronic devices and computers enjoys a significant share in this category. In Colombia, this activity is very limited because most electronic devices are imported.²⁵

It should be noted that the pulp, paper and paperboard production industry comprises 10 firms. In 2005, two of the firms in this group generated 81 per cent of the operational income of this industry: Propal (using sugar-cane fiber) and Carton de Colombia. The latter has a 70 per cent share in the group Smurfit Kappa, which is one of the largest producers of paper packaging and recycling in the world. The proportion of pulp (chemical wood pulp) is approximately 10 per cent of the total of this ISIC classification and this was not modified between 1997 and 2004.

In this group of industries, there is a difference in composition in Colombia compared with other countries like Mexico, where the production of electronic equipment and computers represents 66 per cent of the value added of the interdependent industries. In contrast, in Colombia, these activities have a share of less than two per cent. This wide difference originates from the slack development of these activities in the country, which explains the behavior of external trade in this type of product, Colombia being a net importer.

²⁵ For example, in Mexico in 2003, computers and equipment represented 66 per cent of this group (Márquez-Mees, Ruiz and Jaber, 2006), which is similar to Hungary in 2002, where the manufacture of computers and equipment, TVs and radios accounted for 89 per cent of the group (Penygey and Munkácsi, 2005).

Table 18. Value Added Composition of the Interdependent Industries, 2000-2005

		2000	2001	2002	2003	2004	2005
ISIC	<i>Interdependent Industries</i>	100	100	100	100	100	100
2101	Manufacture of pulp, paper and paperboard	41.6	42.8	40.3	40.3	39.6	38.0
2109	Manufacture of other articles of paper and paperboard	27.9	24.9	25.0	27.3	26.8	25.5
2429	Manufacture of other chemical products n.e.c	18.3	18.6	19.6	18.3	18.0	16.8
3210	Manufacture of capacitors except fixed and variable electronic capacitors	0.2	0.3	0.2	0.2	0.2	0.2
3220	Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	0.9	1.3	1.3	1.1	1.4	1.2
3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods	1.5	2.1	2.5	2.2	2.2	2.3
3320	Manufacture of optical instruments and photographic equipment	0.7	1.0	1.0	0.8	0.7	0.8
3692	Manufacture of musical instruments	0.0	0.0	0.0	0.0	0.0	0.0
5237	Retail sale of records, musical instruments and other household appliances and equipment	1.0	1.1	1.2	1.1	1.4	1.6
5244	Retail sale of books, newspapers, magazines, office supplies in specialized stores	7.5	7.8	8.6	8.1	8.3	11.4
7123	Renting of office machinery and equipment (including computers)	0.4	0.3	0.2	0.5	1.3	2.3

Source: This study.

In part, the absence of the electronic equipment industry explains the minor role of the CBI in the total value added of the country, in contrast to that of other countries, where this activity is highly relevant.

4.6.3 Partial Industries

The most important partial industries in terms of the generation of value added are the manufacture of fabricated metal products, manufacture of textiles and wooden articles. Of the entire value added of the partial industries, 70 per cent is concentrated on these three industries, as shown in Table 19. The activities are generally associated with small-scale enterprises and the informal sector, which plays an important role in the generation of employment.

Table 19. Value Added Composition of the Partial Industries, 2000-2005

		2000	2001	2002	2003	2004	2005
ISIC	<i>Partial Industries</i>	100	100	100	100	100	100
1720	Manufacture of made-up textile articles	0.4	0.5	0.5	0.5	0.4	0.4
1750	Manufacture of knitted and crocheted fabrics and articles	27.4	27.4	24.1	23.8	24.7	25.9
1810	Manufacture of wearing apparel	1.1	1.4	1.4	1.4	1.4	1.3
1921	Manufacture of footwear with uppers of leather, other than sports footwear	0.1	0.1	0.1	0.1	0.1	0.1
1922	Manufacture of footwear with uppers of textile materials, other than sports footwear	0.0	0.0	0.0	0.0	0.0	0.0

		2000	2001	2002	2003	2004	2005
ISIC	Partial Industries	100	100	100	100	100	100
1923	Manufacture of footwear with outer soles and uppers of rubber, other than waterproof footwear, sports footwear	0.0	0.0	0.0	0.0	0.0	0.0
1924	Manufacture of footwear with outer soles and uppers of plastics, other than waterproof footwear, sports footwear	0.0	0.0	0.0	0.0	0.0	0.0
1925	Manufacture of sports footwear, except skating boots	0.1	0.1	0.1	0.1	0.2	0.3
1929	Manufacture of footwear n.e.c.	0.0	0.0	0.0	0.0	0.0	0.0
2020	Manufacture of other wood products	7.9	7.3	6.8	7.3	8.1	6.8
2030	Builders' joinery and carpentry	2.4	2.4	2.3	2.3	2.1	2.1
2040	Packing cases, boxes, crates, drums and similar wood packaging	1.0	1.0	1.0	1.0	0.9	0.9
2090	Other wood products; articles of cork plaiting materials and straw	16.3	16.3	16.1	16.0	14.8	14.5
2610	Manufacture of glass and glass products	0.3	0.4	0.4	0.4	0.3	0.3
2899	Manufacture of other fabricated metal products n.e.c.	27.2	26.8	28.7	30.4	29.2	29.3
3611	Manufacture of furniture for households	3.3	3.3	3.2	3.2	3.0	2.9
3612	Manufacture of furniture for offices	0.2	0.2	0.2	0.2	0.2	0.2
3613	Manufacture of furniture for trade and services	0.2	0.3	0.3	0.3	0.3	0.4
3619	Manufacture of other furniture n.e.c.	0.5	0.6	0.6	0.6	0.7	0.9
3691	Manufacture of jewelry and related articles	0.3	0.4	0.7	0.9	0.7	0.7
3694	Manufacture of games and toys	2.8	4.2	4.1	4.1	4.6	4.2
7421	Architectural and engineering activities and related technical consultancy	4.1	3.2	4.3	3.6	4.4	4.6
7499	Other business activities n.e.c. (translation and interpretation)	2.4	2.2	3.3	2.0	2.2	2.5
9232	Museum activities and preservation of historical sites and buildings	1.8	1.8	1.7	1.7	1.6	1.5

Source: *This study.*

4.6.4 Non-Dedicated Support Industries

In the non-dedicated support industries, as expected, trade is the main activity in the generation of value added, accounting for 45 per cent of the total, and transport with 37 per cent (Table 20). In Mexico, these percentages are 43 per cent and 27 per cent, respectively (Márquez-Mees, Ruiz and Yaber, 2006), and in Hungary, 58 per cent and 42 per cent, respectively, although the latter includes communications (Penygey and Munkácsi, 2005).

Table 20. Value Added Composition of Non-Dedicated Support Industries, 2000-2005

		2000	2001	2002	2003	2004	2005
ISIC	<i>Non-Dedicated Support Industries</i>	100	100	100	100	100	100
5119	Wholesale on a fee or contract basis of products n.e.c.	0.0	0.0	0.0	0.0	0.1	0.2
5131	Wholesale of textiles, clothing and footwear	6.5	6.3	5.6	5.6	4.5	4.3
5132	Wholesale of clothing and fur articles	0.7	0.7	0.5	0.4	0.6	0.8
5133	Wholesale of footwear	0.6	0.7	1.4	0.8	0.6	0.7
5134	Wholesale of electronic and telecommunication parts and equipment	3.4	4.3	5.2	6.1	5.5	5.2
5137	Wholesale of paper and paperboard and their products	1.7	2.0	1.7	1.9	1.7	1.6
5139	Wholesale of other household goods	3.6	3.1	3.1	2.9	2.3	2.1
5154	Wholesale of textile fibers	0.0	0.0	0.0	0.0	0.3	0.2
5159	Wholesale of other intermediate products, waste and scrap	0.1	0.0	0.0	0.0	0.0	0.1
5163	Wholesale of office, accounting and computing machinery	6.7	5.8	5.0	7.5	4.4	4.2
5190	Other wholesale	36.2	34.0	32.5	26.3	27.1	26.0
6041	Local freight transport by road	0.9	1.0	0.9	0.9	0.9	0.7
6042	Interurban freight transport by road	1.1	1.2	1.1	1.0	1.0	0.9
6043	International freight transport by road	0.0	0.0	0.0	0.0	0.0	0.0
6111	International water transport	2.6	2.4	2.3	2.4	3.0	2.3
6112	Coastal water transport	1.4	1.4	1.3	1.3	1.6	1.3
6120	Inland water transport	2.9	2.7	2.6	2.6	3.3	2.6
6212	National freight air transport	0.1	0.1	0.1	0.1	0.1	0.1
6214	International freight air transport	1.1	1.2	1.1	1.1	1.2	1.1
6310	Cargo handling	13.3	15.9	14.8	15.0	15.2	13.8
6320	Storage and warehousing	2.8	2.4	2.4	2.7	2.8	3.6
6390	Activities of other transport agencies	6.1	4.0	6.7	7.3	9.8	10.6
6411	National post activities	0.0	0.0	0.0	0.0	0.0	0.0
6412	Courier activities other than national post activities	0.1	0.1	0.0	0.0	0.0	0.1
6421	Telephone services	2.7	4.1	5.7	3.5	1.0	0.6
6422	Network data transmission	1.0	1.3	1.4	2.4	1.2	1.3
6423	Radio and television transmission on a fee or contract basis	0.4	0.4	0.4	0.1	0.4	0.1
6424	Wired telecommunication carriers	0.0	0.2	0.3	0.6	0.5	0.6
6425	Other telecommunication services	2.6	3.0	2.8	5.7	9.0	10.8
6426	Telecommunication-related services	1.0	1.9	1.0	1.5	1.4	1.3
7240	Database activities and online distribution of electronic content	0.2	0.0	0.2	0.2	0.4	2.7

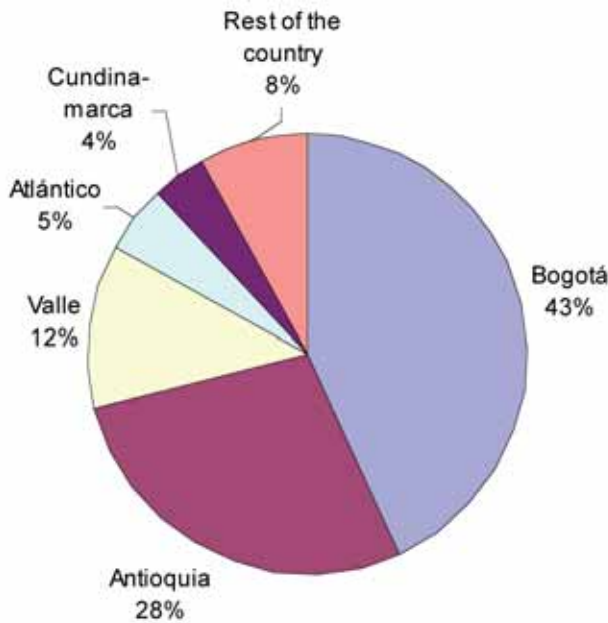
Source: This study.

4.7 Regional Structure of CBI Gross Value Added

Colombia is a country characterized by wide regional diversity resulting in the relative isolation of the different regions due to their terrain, geography and history. This section provides a brief description of the regional distribution of the GVA of the CBI. Colombia is divided into 32 departments and a capital district (Bogotá). However, four territorial sections contribute 88 per cent of the GVA generated by the CBI: Bogotá (43 per cent), Antioquia (28 per cent), Valle (12 per cent) and the Atlántico (5 per cent), as shown in Chart 10.

In the core industries, there is a major concentration in these areas, with Bogotá representing 71 per cent of the value added, followed by Antioquia 6 per cent, Atlántico 8 per cent and Valle 10 per cent.

Chart 10. Regional Distribution of GVA of the CBI, 2001-2005



Sources: This study, based on the Annual Manufacturing Survey of the DANE and Superintendency of Companies.

The concentration of the CBI activities is partly explained by the existence of the four largest metropolitan areas of the country (Bogota, Medellin, Cali and Barranquilla), which, altogether account for almost half of the population. Likewise, the CBI are associated with urban activities and their markets are associated with higher income regions.

Likewise, in the main cities, there is greater access to information technology and a major concentration of human resources, which form the basis for the development of this type of activity.

5. Employment Generation in the CBI

The process of production, distribution, trade and consumption of cultural goods and services involves multiple agents filling the diverse roles. As a result, the copyright-based industries represent an important source of employment for creators, performers, businessmen, employees and independent workers in manufacturing, industrial, media, wholesale and retail trade firms, advertising agencies, cultural institutions, etc. These employment possibilities extend to those involved in activities providing support and assistance to the different service links in the value chain.

To measure the CBI contribution to national and urban employment (since these activities are concentrated in the main cities) this study, following WIPO's methodological guidelines, considers employment from all CBI activities, i.e. the core, interdependent, partial and non-dedicated support industries.

5.1. Source of Information

The presence of diverse agents involved directly or indirectly in the CBI is a demonstration of the social division of labor in cultural production and can be captured through different collection methods designed and implemented by Colombia's National Statistics Department (DANE) and the private sector.

5.1.1. Household Surveys

The principal source of information for measuring the contribution of the CBI in employment is the Household Surveys conducted by the DANE. The main limitations of this source are: i) constant methodological changes since 2000 which impede comparisons; ii) the disaggregation of economic activities at four-digit ISIC only began in 2003; iii) the DANE's statistical reserve policy, which initially included only the Annual Manufacturing Survey and now covers the entire database, hindering the release of micro data to researchers. Researchers only receive the final tables but it is the DANE which processes the information. This phenomenon has caused a huge debate in the country.

In 2000, the DANE implemented a significant change in the methodology of household surveys. This change was consolidated during the second quarter of 2001 when a new system known as Continuous Household Survey (CHS) was implemented. Starting in 2003, the CHS included the economic activities at four digits. This explains why this study can calculate employment in the CBI for the period 2003-2006 only.

The general objective of the CHS is to provide basic information on the size and structure of the labor force (employment, unemployment) and allow the quantification of employment in the formal and informal sectors and of some socio-demographic variables in the country. The survey does not include the population of new departments (the 1991 Constitution), where approximately 4 per cent of the total population resides and whose occupations are mainly of a rural nature.

The other limitation in the household survey is that it does not allow the quantification of employment in copyright activities based on the international standard classification of occupations adopted for Colombia (ISCO-88), such as for composers, singers, musicians, writers, photographers, etc.²⁶ In addition, an alternative quantitative approximation of employment through the information provided by social security institutions is limited by the fact that half the people employed in Colombia are not affiliated to pension or health insurance schemes.

²⁶ The ISCO-88 is a technical instrument which describes the occupational structure of the country, based on the selection of jobs with similar tasks and characteristics to form the most representative occupations.

5.1.2. Annual Manufacturing Survey

For industrial activities, the Annual Manufacturing Survey was used but this only covers establishments employing 10 or more people. Therefore, all the informal enterprises (micro-enterprises) are excluded from this survey. This is an important constraint since 14 per cent of the informal sector workers are employed in the industry.

5.1.3. Secondary Sources

Finally, to refine the data, other sources of information such as firms' surveys (Association of Business Chambers and Chambers of Commerce) and studies on different sectors conducted by business trade organizations were utilized.

5.2. Some Characteristics of the Colombian Labor Market

According to the CHS, the country's population in 2006 was 45.2 million, with 74 per cent living in urban areas. In Colombia, social work is carried out by 18.8 million workers.

In June 2006, the CHS results showed that the labor force participation rate in the country was 60.9 per cent, similar to the rate for the same period in 2003. In contrast, the employment rate was 54.2 per cent, higher by two percentage points than that registered three years earlier.

Table 21. Labor Market Indicators

	2003	2004	2005	2006
Percentages				
Working age population	75.9	76.3	76.6	77.0
Labor force participation rate	60.9	59.6	58.9	60.5
Employment rate	52.2	51.2	52.1	54.2
Unemployment rate	14.2	14.1	11.4	10.5
Population (thousands)				
Total population	43,104	43,832	44,545	45,234
Working age population	32,725	33,436	34,139	34,819
Economically active population	19,932	19,937	20,095	21,060
Employed	17,096	17,133	17,797	18,857
Unemployed	2,836	2,804	2,297	2,203

Source: Continuous Household Survey for June 2001-2006, DANE.

The period of analysis is characterized by continuous growth in employment, leading to the creation of 1.8 million jobs (representing an accumulated figure of 9.5 per cent), 53 per cent of which were generated in the 13 major cities and metropolitan areas.

Table 22. Total National Employment

	2003	2004	2005	2006
Total	17,096,466	17,133,258	17,797,397	18,857,125
Employment in 13 cities and their metropolitan areas	7,721,525	7,720,228	8,137,200	8,665,391

Source: Continuous Household Survey, Colombia's National Statistics Department.

At the national level, 28 per cent of the total employed population is found in the rural sector and 72 per cent in urban areas. The distribution of this population according to the economic activity of firms where they are employed shows that in 2006 out of every 10 workers, six worked in the service sector. This sector together with the manufacturing industry which accounts for 14 per cent of the total employed population and construction with 5 per cent, cover almost the entire employment share of the country (79 per cent). The agriculture and livestock sector accounts for the balance of 21 per cent of total employment.

Table 23. Employment by Economic Activity, 2006

Economic Activity	Employment (Thousands)	Participation (%)
Total National Employment	18,857	100
Agriculture, hunting, forestry, fishing	3,995	21.2
Mining	241	1.3
Manufacturing	2,604	13.8
Electricity, gas, water	88	0.5
Construction	910	4.8
Wholesale, retail trade, restaurants and hotels	4,466	23.7
Transport, storage and communication	1,364	7.2
Financing, insurance, business and production services	215	1.1
Real estate activities	867	4.6
Community, social and personal services	4,106	21.8

Source: Continuous Household Survey, June 2006.

One of the characteristics of the labor market in Colombia is that 60 per cent of all jobs are unskilled, resulting in low productivity and low incomes. According to the results of the CHS as of June 2006, in the 13 metropolitan areas 58.5 per cent of the total employed population worked in the informal sector.²⁷ Of these, 47 per cent were self-employed workers and 30 per cent private laborers and employees in companies with fewer than 10 workers. The informal sector jobs are mainly concentrated in trade, restaurants and hotels (37.9 per cent), community, social and personal services (21.8 per cent) and industry (16 per cent).

Finally, it should be emphasized that during the period 2001-2006 the unemployment rate showed an accelerated reduction to 10.5 per cent in 2006, 4.6 percentage points lower than the rate registered for the same period in 2001. In actual numbers, this reduction meant that in five years there were 653,000 fewer unemployed people.

5.3. Employment in the CBI

In the following sections, the employment figures for the CBI for the period 2003-2006 based on the results of the CHS, and of some industrial activities based on the Annual Manufacturing Survey, are presented. The household being the source of information for the survey, data for formal and informal (self-employed and jobs at establishments with 10 or fewer employees) occupations are generated. Likewise, for partial industries and non-dedicated support industries, due to the high aggregation of economic activities as

²⁷ For the second quarter of 2006, there were 8.5 million workers in the 13 areas, of which 4,959,000 were in the informal sector and 3,520,000 were in the formal sector. Compared with the same period in 2005, the workers in the informal sector increased by 187,000 (3.9 per cent) while formal sector employment expanded by 163,000 (4.9 per cent).

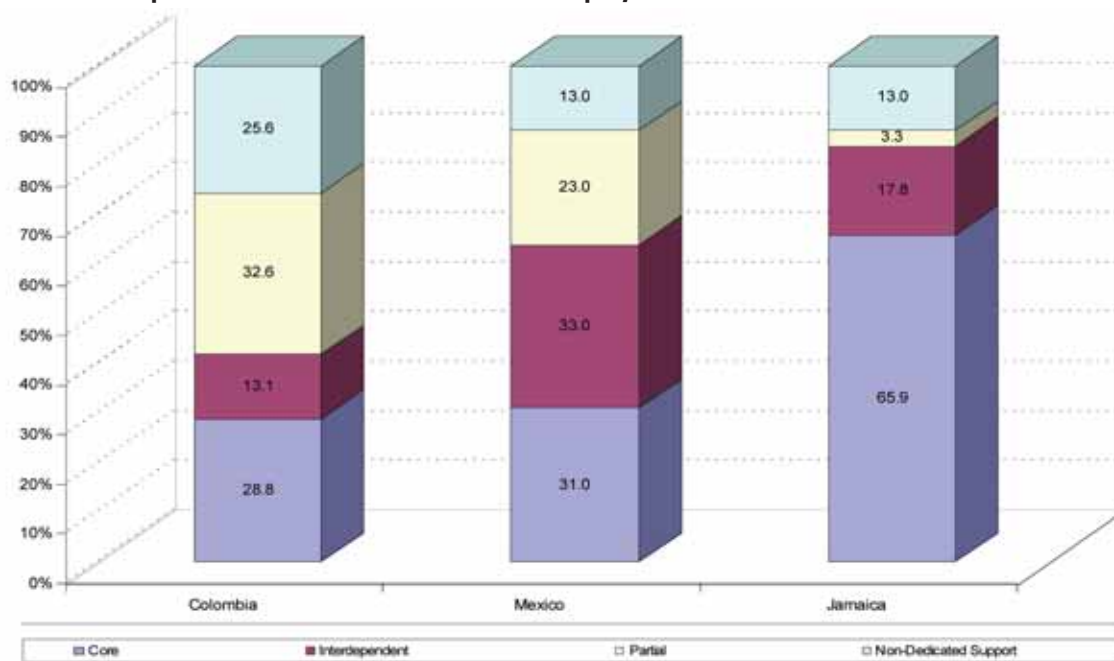
reported in the household survey (ISIS at four digits),²⁸ employment calculations were adjusted utilizing the same factors of share participation in the value added as described earlier.²⁹

In 2006, the CBI generated 1,097,430 jobs, representing 5.8 per cent of the working population and 12.7 per cent of the total employment in the 13 major cities. These figures show that the CBI make a higher contribution to national employment than traditional sectors such as construction, coffee and financial industries (Table 24).

In terms of the internal composition of CBI employment in 2006, the core contributed 29 per cent to the total and the interdependent industries contributed 12.8 per cent. Likewise, the partial industries accounted for the largest share of total employment at 32.1 per cent and the non-dedicated support industries also made a significant contribution at 25.7 per cent (Table 24).

The following chart shows the employment structures of the CBI in various countries, associated with the CBI contribution to the generation of value added.

Chart 11. Comparisons of the Distribution of CBI Employment



Source: This study, based on WIPO studies.

Table 24. Total CBI Employment (Numbers of Workers)

	2003	2004	2005	2006
Total	941,754	987,942	1,031,323	1,097,430
Core	270,850	289,573	301,299	321,846
Interdependent	123,521	128,684	132,471	140,606
Partial	306,544	318,997	332,873	352,426
Non-Dedicated Support	240,839	250,688	264,680	282,552

Source: This study.

²⁸ The basic question in the household survey to account for CBI employment was: "What is the main business of the company where you work?".

²⁹ Chapter 3, pp.36-39.

Table 25. Participation (%) of the CBI in Total National Employment

	2003	2004	2005	2006
Total	5.5	5.8	5.8	5.8
Core	1.6	1.7	1.7	1.7
Interdependent	0.7	0.8	0.7	0.7
Partial	1.8	1.9	1.9	1.9
Non-Dedicated Support	1.4	1.5	1.5	1.5

Source: This study.

Table 26. Distribution (%) of CBI Employment

	2003	2004	2005	2006
Total	100	100	100	100
Core	28.8	29.3	29.2	29.3
Interdependent	13.1	13.0	12.8	12.8
Partial	32.6	32.3	32.3	32.1
Non-Dedicated Support	25.6	25.4	25.7	25.7

Source: This study.

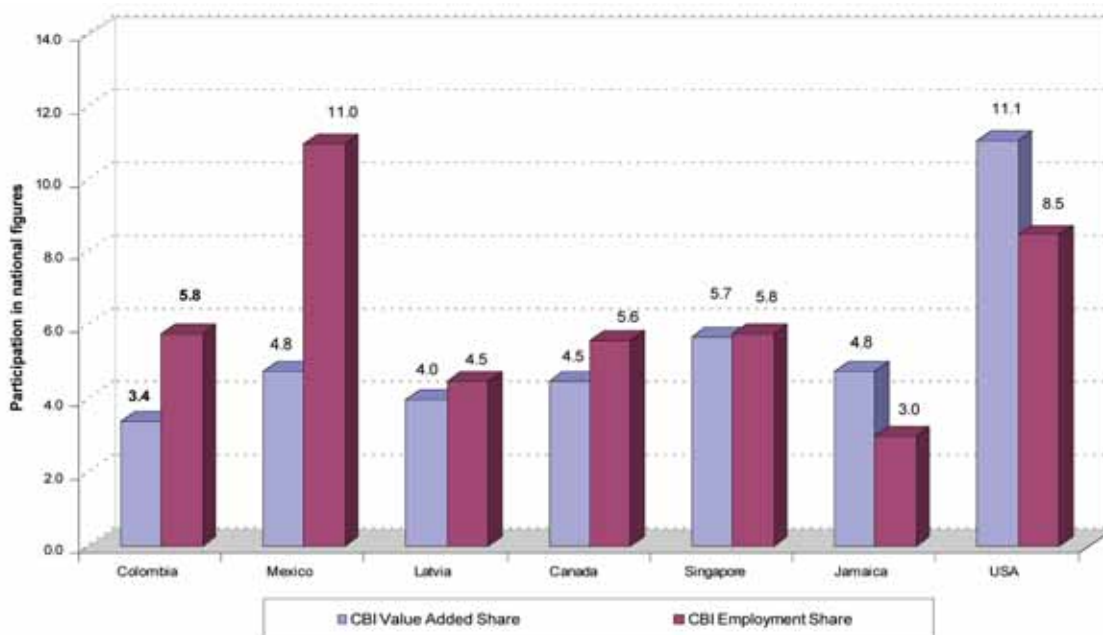
Table 27. Annual Growth (%) in CBI Employment

	2004	2005	2006
Total	4.9	4.4	6.4
Core	6.9	4.0	6.8
Interdependent	4.2	2.9	6.1
Partial	4.1	4.3	5.9
Non-Dedicated Support	4.1	5.6	6.8
Total National Employment	0.2	3.9	6.0

Source: This study.

The CBI participation in Colombia's total employment is lower than that of Mexico (11 per cent) and is similar to that of Canada and Singapore, at 5.6 per cent and 5.8 per cent respectively, although the CBI in these countries generate higher value added.

Chart 12. CBI Value Added and Employment Contribution in Selected Countries



Source: This study, based on WIPO studies and own calculations.

During the period 2003-2006, the CBI created 156,000 additional jobs, representing 8.8 per cent of all new jobs in the country and 16.5 per cent of the employment created in the 13 main cities and metropolitan areas. The accumulated growth during this period for CBI employment was 16.5 per cent, 6.2 and 4.3 percentage points higher than the accumulated growth rate for national employment at 10.3 per cent and for the 13 main cities at 12.2 per cent, respectively.

Table 28. Employment Creation during 2003 -2006

	Jobs Created
Total National Employment	1,760,659
13 main cities and their metropolitan areas	943,866
CBI	155,676

Source: This study.

Within the CBI, the main contributor to the generation of new jobs was the core group, which contributed 50,996 or 33 per cent of the total, i.e. four points higher than its relative participation in employment.

Table 29. Employment Creation by the CBI during 2003-2006

CBI	Jobs Created	Share
Total CBI	155,676	100
Core	50,996	33
Interdependent	17,085	11
Partial	45,882	29
Non-Dedicated Support	41,713	27

Source: This study.

In terms of the annual creation of employment, the CBI showed a stronger growth rate than the total economy during the three-year period of analysis (Table 30). However, compared with the growth rate of employment in the 13 main cities, the CBI growth rates were lower, except for 2004. During that year, while the country experienced zero growth in employment, the CBI achieved a growth rate of 5 per cent and the core group led with an increase of 7 per cent.

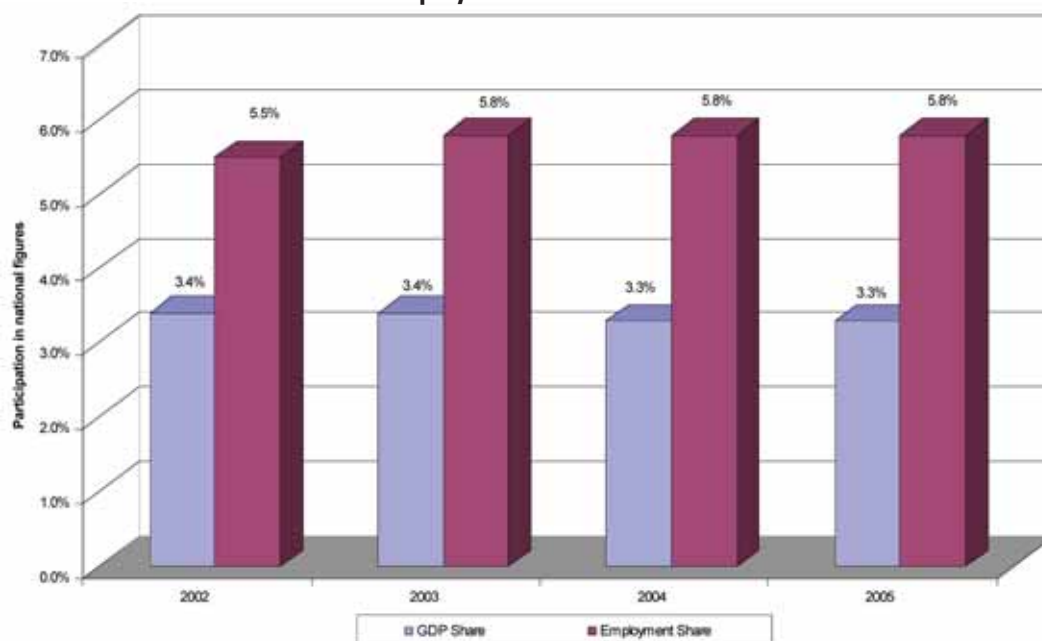
Table 30. CBI and National Employment Annual Growth Rates

	2004	2005	2006
Total National Employment	0.2	3.9	6.0
13 main cities and their metropolitan areas	0.0	5.4	6.5
CBI	4.9	4.4	6.4

Source: This study.

Unfortunately, the restricted employment series for this study do not allow a deeper analysis of the cyclical behavior of employment in the CBI. Chart 13 shows the correlation between the growth of value added and employment in the CBI, both characterized for their stability during the period 2002-2005.

Chart 13. CBI Value Added and Employment Contribution for Colombia



Source: This study, based on WIPO studies.

Finally, the relative productivity of workers in the CBI (compared with the average productivity of all workers which is equal to 1 in the different countries), registers the following values: 1.42 in the US; 1 in Latvia; 0.97 in Singapore and 0.94 in Hungary, among the high-income countries. In the middle-income countries, these figures are as follows: 0.43 in Mexico, 0.44 in the Philippines and 0.54 in Colombia. They show that only the relative productivity of the CBI in the US is higher than in the rest of the economy. This relative productivity is equal or slightly lower for Latvia, Singapore, and Hungary and lower in Mexico, the Philippines and Colombia, respectively.

6. The CBI in Colombia's Foreign Trade

6.1. Initial Considerations

Analysis of the external trade of the CBI shows the magnitude and the dynamism of the export and import markets and the foreign exchange net income generated for the country. Exports in general are an extension of the existing national market but imports represent competition to the domestic CBI and the consumption preferences in the national market.

6.2. Sources of Foreign Trade Information

Currently, the National Tax and Customs Office (DIAN) issues the foreign trade figures. The data is collected using standard formats designed for the purpose. In the case of exports and imports, these are registered using the NANDINA³⁰ Harmonized Tariff Code (eight-digit code) and follow the guidelines of the harmonized system. The exports are valued at FOB and the imports at CIF prices.

Although DIAN publishes the foreign trade figures to an aggregate level, the Central Bank and the National Statistics Department (DANE) process these data for their own purposes. In the case of DANE, aside from publishing aggregate figures, these transactions are also included in the national income accounts. On the other hand, the Central Bank uses and adjusts these data to include them in the balance of payments accounts and in the currency balance.

6.3. Structure and Trends of Colombia's Foreign Trade

The structure of Colombia's foreign trade has remained largely unaltered since the opening of the country's economy in the early 1990s. The non-factor goods and services account in the balance of payments shows that exports are mainly goods (89 per cent) and that a significant share of the service exports are linked to the foreign trade of goods. A similar pattern is observed for imports except that the share of services is higher (18 per cent).

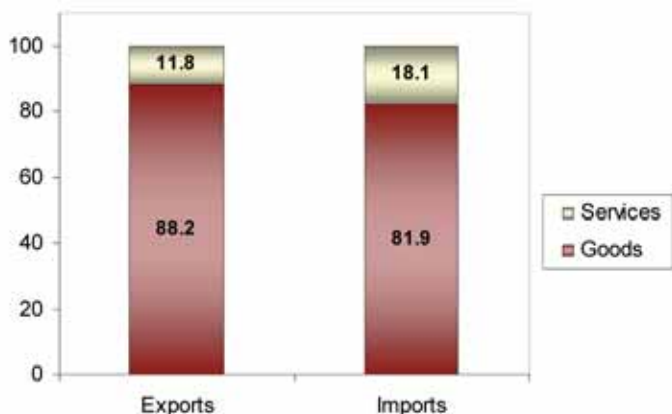
The supply of export goods is divided equally between traditional and non-traditional goods. Coffee, which had earlier been a main export product, now accounts for only 6 per cent, while mining accounts for 43 per cent of the total external sales (with petroleum at 26 per cent and coal at 12 per cent). The non-traditional exports are mainly industrial products (73 per cent). "Although the level of sophistication of Colombian industrial export products has increased over the last twenty years and is higher compared to that of Venezuela, Chile and Peru but these products are less sophisticated compared to the exports of countries like Brazil, Mexico and Malaysia".³¹ The basket of non-traditional goods is complemented by exports of the agriculture and livestock sectors (17 per cent, mainly flowers and bananas) and other mining products (9 per cent, especially gold and emeralds)

³⁰ Harmonized system adopted for ANDEAN member countries according to Decision 381 of 1995 of the Cartagena Agreement.

³¹ National Competitiveness Report 2007, the Private Council on Competitiveness, 2007.



Chart 14. Composition of Trade in Goods and Non-Factor Services

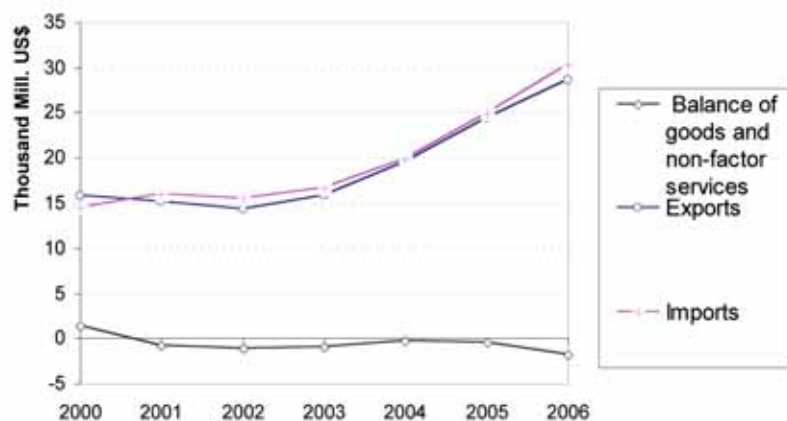


Source: This study.

On the other hand, 80 per cent of imports are comprised of intermediate goods (high level of chemical inputs) and capital goods (machines, vehicles and telecommunications) (44 per cent and 36 per cent, respectively). The balance is made up of consumer goods.

Finally, despite this consistent foreign trade performance in recent years, Colombia's trade balance has shown a favorable change in the last decade, due to the dynamism of the export sector. Exports grew by 9 per cent per annum during the period 1994-2006, while imports grew by 6.7 per cent per annum. During this same period, exports and imports of services showed a similar trend with an annual growth rate of 6.6 per cent. This has enabled the trade balance in goods to register a surplus since 1999 (balance of 322 million US dollars in 2006). However, the trade balance in non-factor services showed a deficit of 2,120 million US dollars in 2006 due to the fact that imports outperformed exports by a wide margin.

Chart 15. Balance of Payments of Goods and Non-Factor Services



Source: This study.

Table 31. Balance of Payments of Goods and Non-Factor Services

Millions of US dollars	2000	2001	2002	2003	2004	2005	2006
Goods and Non-Factor Services	1,374	-833	-1,197	-885	-334	-507	-1,798
Exports	15,771	15,038	14,183	15,733	19,479	24,393	28,554
Imports	14,397	15,871	15,380	16,618	19,813	24,900	30,352
A. Goods	2,633	579	239	555	1,346	1,595	322
1. General commerce	2,444	407	141	141	1,119	1,387	-47
i. Exports	13,099	12,233	11,794	12,933	16,442	20,818	23,930
ii. Imports FOB	10,655	11,826	11,653	12,792	15,324	19,431	23,976
2 Special foreign commercial transactions	189	172	97	414	227	208	368
i. Exports	624	615	522	879	782	911	1,251
ii. Imports	435	443	425	466	554	703	883
B. Non-Factor Services	-1,259	-1,412	-1,435	-1,439	-1,680	-2,102	-2,120
a. Exports	2,049	2,190	1,867	1,921	2,255	2,664	3,373
b. Imports	3,308	3,602	3,302	3,360	3,935	4,766	5,493

Source: *Balance of Payments, Central Bank.*

6.4. Foreign Trade in the CBI

It should be noted that traditional foreign trade statistics, not only in Colombia but worldwide, consider mainly goods (and in particular tradable goods), and in general do not take services into account. This limitation leads to the fact that registered statistics do not reflect the real value or in other words, they undervalue the scope of the CBI in some cases. For instance, the export of film (ISIC 9211 - production of films and video tapes) registers the sale of originals and copies of any production, but does not reflect the income per copy or exhibition rights generated in the foreign market. To ensure that such income is accounted for, it is necessary to create a system that periodically consults the firms that produce or trade these materials.

To quantify the foreign trade figures presented here, it was necessary to use a table to convert the NANDINA classification to the ISIC. Since the period of analysis covers the years 2000-2005 when some changes in the nomenclature were introduced, it is likely that these changes could affect the correlatives. However, evaluating the continuity of statistics, this phenomenon was unlikely to have affected the figures for the CBI.

An additional observation has to do with the globalization process, which has spread to many countries during the past decade. Under this scheme, "national" industries produce outside a country's borders; the most dramatic example being the dynamic growth that the Chinese economy has experienced. A significant number of foreign firms which have decided to locate to China to take advantage of what its economy offers are responsible for this growth. Although the production and external sales of these firms or industries are granted copyright protection in their country of origin (i.e. the US), it is impossible to take into account the sales of these figures in the national export statistics.

Table 32. Numbers of CBI Involved in Foreign Trade

Core	Interdependent	Partial	Non-Dedicated Support	Total
9	9	19	-	37

The figures indicate number of four-digit items.

Source: This study.

In 2005, CBI exports totaled 2,138 million US dollars and imports totaled 4,800 million US dollars. The net balance for the country shows that the value of imports is more than double that of exports. While CBI exports represented 16.7 per cent of the country's industrial exports and 10 per cent of total national exports, imports have a more substantial share (24 per cent and 22.6 per cent respectively).

This initial result indicates that the country is a net importer of CBI goods and services (2,200 million US dollars). However, this trade deficit is largely determined by imports of the interdependent industries. If only the trade transactions of the core industries are taken into account, the balance is positive, that is, the country is a net exporter of CBI goods and services. The following table shows the exports and imports of the CBI.

Table 33. Exports and Imports of the CBI, 2000-2005

Millions of US dollars

	Exports (FOB)					
	2000	2001	2002	2003	2004	2005
Core	172.4	212.6	189.7	188.1	218.8	232.8
Interdependent	226.6	282.9	283.5	327.6	392.8	433.5
Partial	903.6	987.0	950.1	1,033.4	1,377.4	1,471.5
Non-Dedicated Support	0.0	0.0	0.0	0.0	0.0	0.0
Total CBI	1,302.7	1,482.4	1,423.2	1,549.1	1,989.0	2,137.8

	2000	2001	2002	2003	2004	2005
Total National						
Total Exports	13,158	12,330	11,975	13,129	16,788	21,190
Industrial Sector	7,073	7,397	7,200	7,979	10,469	12,778
Participation of CBI in Total Exports (%)						
Total Exports	9.9	12.0	11.9	11.8	11.8	10.1
Industrial Sector	18.4	20.0	19.8	19.4	19.0	16.7

	Imports (CIF)					
	2000	2001	2002	2003	2004	2005
Core	117.1	178.9	106.7	102.4	109.4	131.2
Interdependent	1,844.0	1,962.7	2,032.7	2,330.1	2,641.9	3,804.7
Partial	597.1	621.6	611.4	591.1	733.9	864.5
Non-Dedicated Support	0.0	0.0	0.0	0.0	0.0	0.0
Total CBI	2,558.2	2,763.3	2,750.9	3,023.7	3,485.1	4,800.4

	2000	2001	2002	2003	2004	2005
Total National						
Total Imports	11,757	12,821	12,695	13,882	16,764	21,204
Industrial Sector	10,856	11,827	11,704	12,826	15,549	19,965
Participation of CBI in Total Imports (%)						
Total Imports	21.8	21.6	21.7	21.8	20.8	22.6
Industrial Sector	23.6	23.4	23.5	23.6	22.4	24.0

Source: This study is based on the trade figures from Colombia's National Statistics Department.

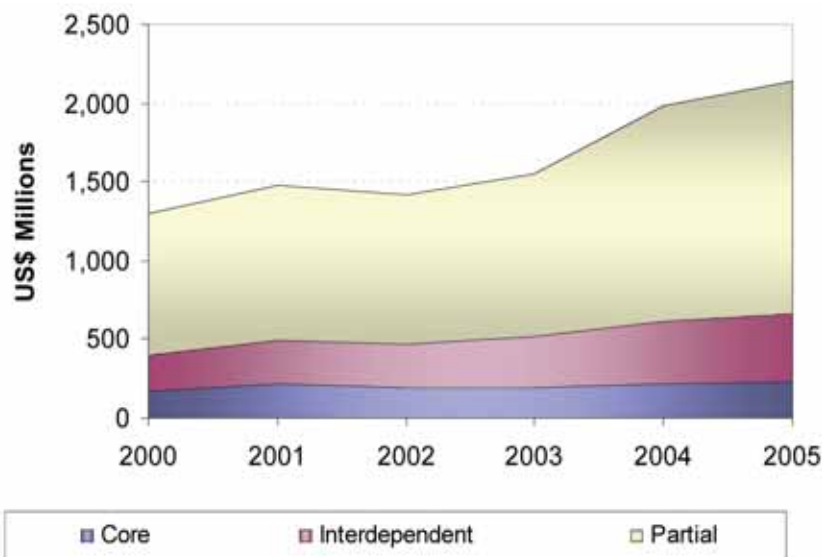
6.5. Exports

More than two-thirds of the value of the CBI exports during the period of analysis are concentrated in the partial copyright industries. While interdependent copyright industries account for 20 per cent, core industries account for 11 per cent of the total value of exports. On the other hand, the contribution of the non-dedicated support industries is zero, which is not surprising as the goods included in this sector are mainly non-tradable goods on the international market (local trade and transport or service activities).

It should be noted that the partial copyright industries include an important number of tradable items, mainly non-durable goods (textiles, clothing and shoes) but also durable products (furniture). The large share of these products in the consumer basket of goods clearly shows the importance of these products in trade. Likewise, it should be noted that it is not possible to separate the CBI component intrinsically involved in these activities, but it is obvious that all these activities demand CBI products, which is why the dynamism of these sectors increases the importance of the core industries. For their part, the interdependent industries somehow constitute the infrastructure for the development of the CBI; these include the sectors that produce machines, equipment and necessary inputs for the CBI or for their distribution.

The following chart shows the trend of CBI exports during the period 2000-2005 for the three groups of CBI that registered sales.

Chart 16. CBI Exports



Source: This study.

The exports of the core industries have grown at an annual rate of 6 per cent, reaching 232.8 million US dollars in 2005, a conservative rate when compared with the dynamic growth of industrial exports (13 per cent).

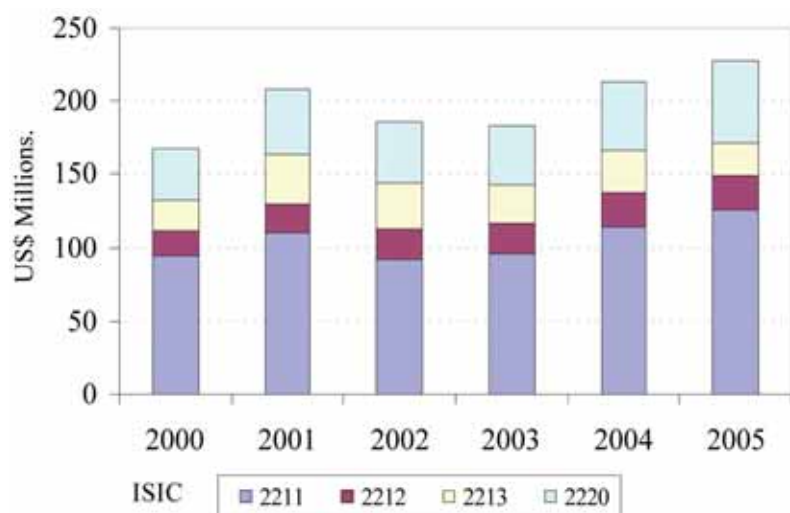
On the other hand, the external sales of the interdependent industries showed the best performance among the four groups, equivalent to an annual growth rate of 14 per cent, allowing these industries to surpass the exports of the core industries by almost 100 per cent in 2005, a far cry from 2000 figures when they only outperformed the core industries by 30 per cent. As will be shown in the following sections, this upward trend is explained by the importance of three sectors.

Finally, the partial copyright industries showed a commendable growth rate of 10 per cent and registered the major share of exports. This group includes products that are not only related to the core industries but

also serve as support for other industries, which explains why it is not possible in this study to separate the component in this industry related to the core industries. To do this requires the study of cases where the participation of the core industries in the wide spectrum of the partial copyright industries can be determined (such as the printing components, creative data processing component, or advertising).

6.5.1. CBI Exports by ISIC

Chart 17. Main Exports of the Core Industries



Source: This study.

The chart shows the core industries' main exports sectors and their evolution during the period of study. As expected, the publishing of books, brochures and other publications is the activity that has shown accelerated growth in recent years: foreign sales represent little more than 50 per cent of the total exports of this group.

Other activities that have also shown an upward trend and a significant value are: i) printing; ii) publishing of newspapers, journals, and periodicals; iii) music publishing.

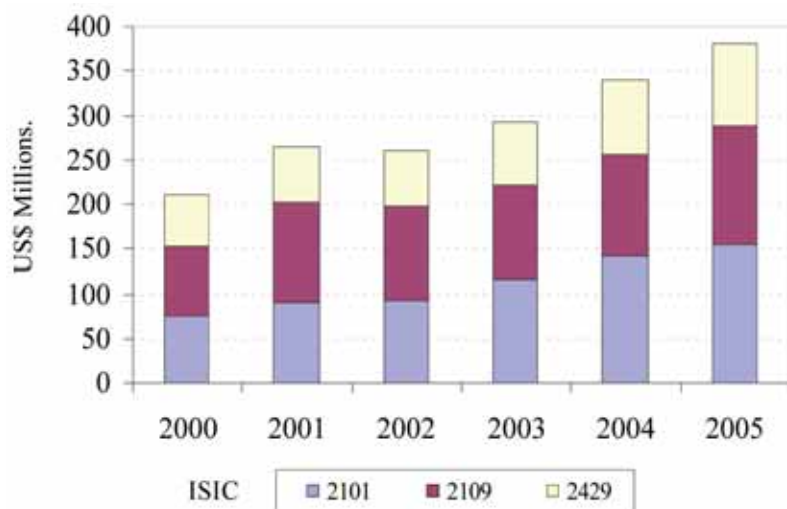
Table 34. Exports of the Core Industries

ISIC	Description	2000	2001	2002	2003	2004	2005
2211	Publishing of books, brochures and other publications	94.5	110.0	91.8	95.5	114.2	125.2
2212	Publishing of newspapers, journals, and periodicals	17.4	19.8	20.9	20.4	23.2	23.8
2213	Music publishing	19.9	33.3	31.3	27.2	28.8	22.9
2219	Other publishing	3.4	3.3	2.4	2.7	3.2	3.1
2220	Printing	35.5	44.8	41.3	40.3	47.3	56.1
2232	Photo mechanic and related	0.1	0.0	0.0	0.0	0.1	0.1
7494	Photographic activities	0.7	0.3	0.5	1.0	0.7	0.7
9211	Motion picture and video production and distribution	0.0	0.0	0.0	0.0	0.0	0.0
9214	Dramatic arts, music and other arts activities	1.0	1.0	1.6	0.9	1.3	0.9
Total		172.4	212.6	189.7	188.1	218.8	232.8

Source: This study.

In the interdependent industries, the major exports are from the following sectors: manufacture of pulp, paper and paperboard and the manufacture of other chemical products.

Chart 18. Main Exports of the Interdependent Industries



Source: This study.

Table 35. Exports of the Interdependent Industries

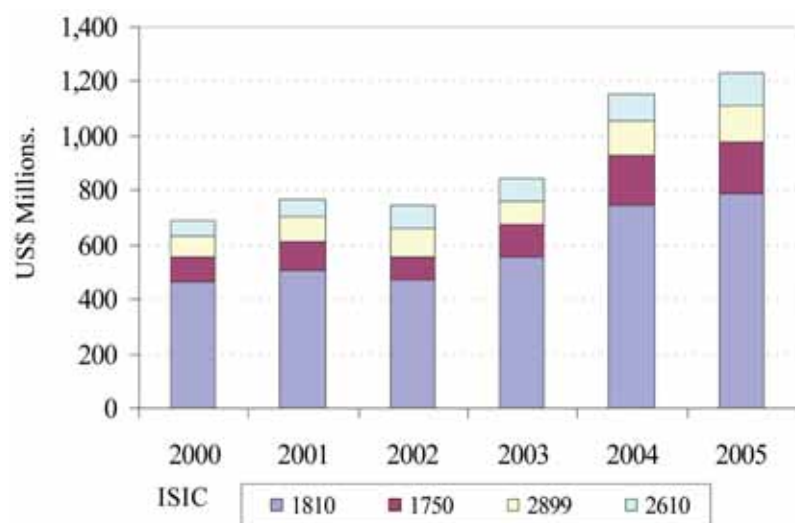
Millions of US dollars

ISIC	Description	2000	2001	2002	2003	2004	2005
2101	Manufacture of pulp, paper and paperboard	75.1	91.4	92.8	115.8	142.7	155.6
2109	Manufacture of other articles of paper and paperboard	77.3	111.5	105.0	106.1	113.2	132.2
2429	Manufacture of other chemical products n.e.c	58.4	60.8	62.2	69.6	84.9	91.8
3000	Manufacture of office, accounting and computing machinery	3.0	8.1	8.4	8.2	25.5	10.5
3210	Manufacture of capacitors except fixed and variable electronic capacitors	3.9	3.5	2.8	4.1	4.4	6.1
3220	Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	7.4	5.1	5.3	8.5	6.0	23.6
3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods.	0.9	1.8	6.3	14.6	15.1	12.4
3320	Manufacture of optical instruments and photographic equipment	0.6	0.6	0.7	0.6	0.8	1.2
3692	Manufacture of musical instruments	0.1	0.1	0.1	0.1	0.1	0.1
Total		226.6	282.9	283.5	327.6	392.8	433.5

Source: This study.

Given the diversity and the wide scope of the partial industries, there are various sectors in this group that are more important than those of the core industries. For instance, the manufacture of textiles is predominant because of its volume of sales.

Chart 19. Main Exports of the Partial Industries



Source: This study.

Table 36. Exports of the Partial Industries

Millions of US dollars

ISIC	Description	2000	2001	2002	2003	2004	2005
1720	Manufacture of made-up textile articles	58.5	58.4	47.4	51.0	73.8	83.4
1750	Manufacture of knitted and crocheted fabrics and articles	88.0	103.9	85.2	117.1	184.7	188.3
1810	Manufacture of wearing apparel	466.1	508.0	472.9	556.6	746.8	790.3
1921	Manufacture of footwear with uppers of leather, other than sports footwear	2.3	2.2	2.1	1.7	2.6	2.9
1922	Manufacture of footwear with uppers of textile materials, other than sports footwear	0.0	0.2	0.1	0.0	0.1	0.1
1925	Manufacture of footwear with outer soles and uppers of rubber, other than waterproof footwear, sports footwear	3.7	2.4	1.4	0.7	0.8	0.5
1929	Manufacture of footwear with outer soles and uppers of plastics, other than waterproof footwear, sports footwear	0.0	0.0	0.0	0.0	0.0	0.0
2020	Manufacture of sports footwear, except skating boots	14.6	13.5	17.0	14.7	16.1	16.0
2030	Manufacture of footwear n.e.c.	10.9	10.0	5.8	4.0	5.2	7.4
2040	Manufacture of other wood products	0.1	0.5	0.3	0.5	1.1	1.3
2090	Builders' joinery and carpentry	5.5	6.4	2.8	2.3	6.4	4.3
2610	Packing cases, boxes, crates, drums and similar wood packaging	55.4	65.1	87.5	86.6	98.0	118.9
2899	Other wood products; articles of cork plaiting materials and straw	78.5	92.4	100.5	84.0	124.1	134.5
3611	Manufacture of glass and glass products	5.7	8.1	5.7	5.4	7.6	11.1

3612	Manufacture of other fabricated metal products n.e.c.	4.7	7.7	5.0	3.0	5.9	8.1
3619	Manufacture of furniture for households	0.0	0.1	0.7	0.4	0.1	0.0
3691	Manufacture of furniture for offices	101.9	99.3	105.5	94.2	90.0	89.4
3694	Manufacture of furniture for trade and services	7.6	8.7	10.2	11.1	14.0	14.8
7421	Manufacture of other furniture n.e.c.	0.0	0.0	0.0	0.0	0.0	0.1
Total		903.6	987.0	950.1	1,033.4	1,377.4	1,471.5

Source: This study.

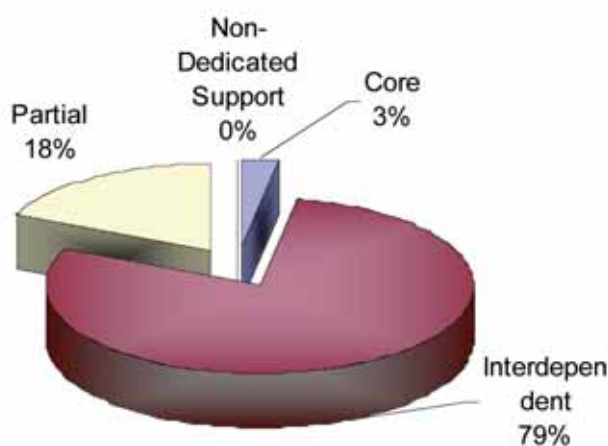
Finally, it should be noted that foreign sales of the non-dedicated support industries are practically zero.

6.6. Imports

The imports of CBI products complement the productive structure of the domestic market, because they cover the deficiencies of the market in some sectors. Given the characteristics of these imports, they are not considered as competing with domestic production, instead they support the local production activities of the CBI.

The imports of the interdependent industries are notable in that they contribute almost 80 per cent of the total value of the CBI imports.

Chart 20. Composition of the CBI Imports, 2005



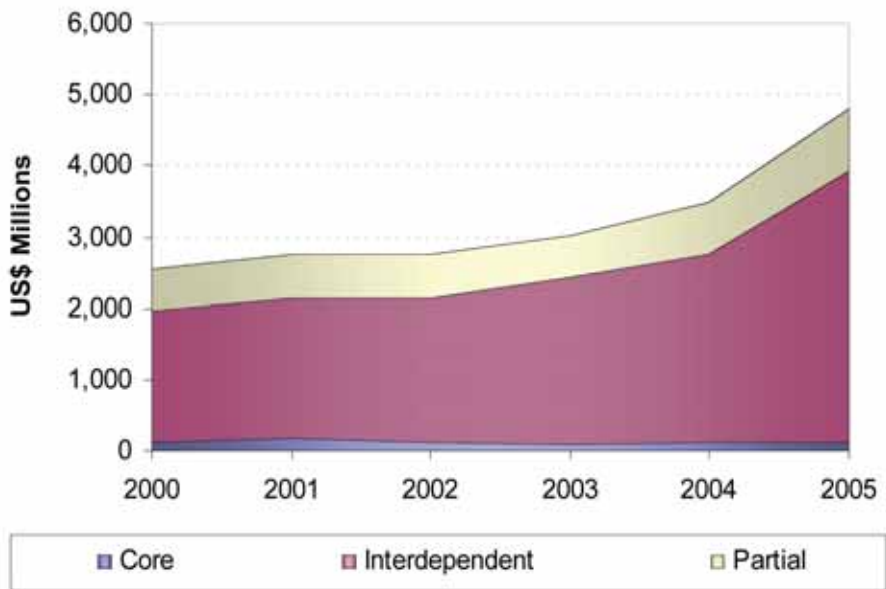
Source: This study.

The products in this group constitute part of the copyright output (such as raw materials for publishing) or involvement in their diffusion (such as TV and radio receivers).

On the other hand, the core industries show a reduced share of imports, which confirms the uncompetitive nature of legal imports of this group with the local industry, thus constituting a mechanism of "natural protection", since there are restrictions on the import of these goods and services.

Both the interdependent and partial copyright industries have shown an increasing trend since 2000 but, from the beginning of 2005, this tendency has become even more noticeable enabling these two groups to reach 4,600 million US dollars' worth of imports.

Chart 21. CBI Imports

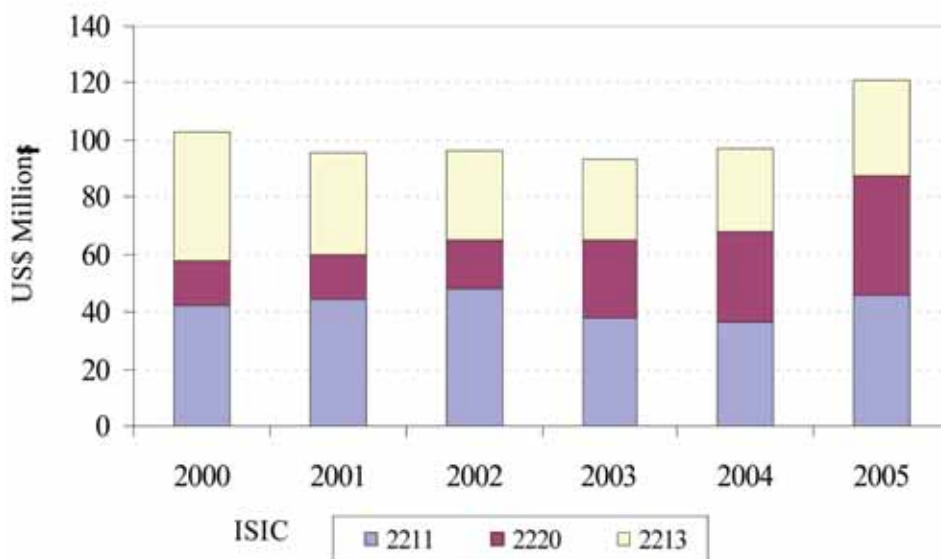


Source: This study.

6.6.1. CBI Imports by ISIC

The main products imported by the core industry (which are not in competition with local production since they are different from the national goods) are similar to those exported by this group, but they have a lower value (only 56 per cent of core industry exports), thus allowing this sector to show a positive trade balance.

Chart 22. Main Imports of the Core Industries



Source: This study.

Table 37. Imports of the Core Industries

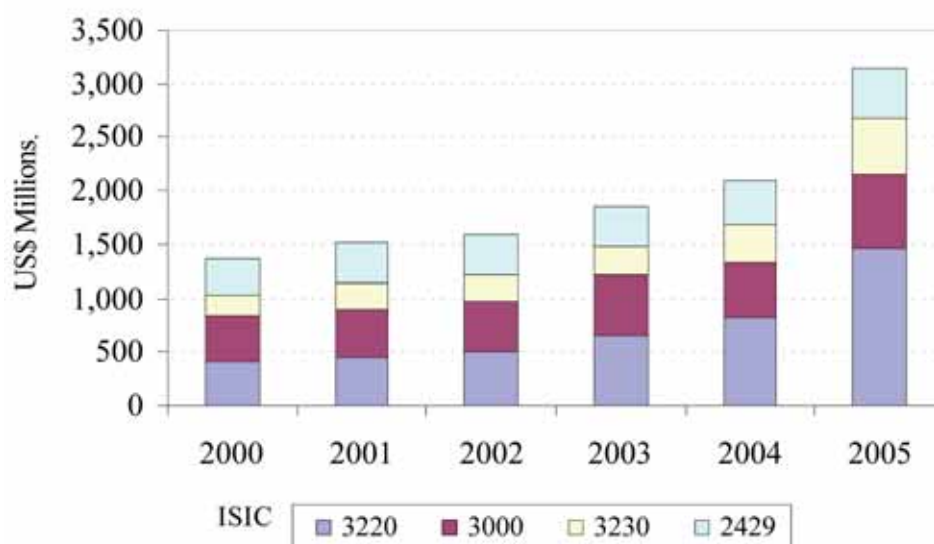
Millions of US dollars

ISIC	Description	2000	2001	2002	2003	2004	2005
2211	Publishing of books, brochures and other publications	42.5	44.2	48.0	37.9	36.4	45.6
2212	Publishing of newspapers, journals and periodicals	9.7	7.4	6.1	5.3	5.0	5.0
2213	Music publishing	45.5	35.2	31.6	28.7	29.0	33.6
2219	Other publishing	1.2	0.9	2.0	0.8	1.6	1.4
2220	Printing	15.2	15.9	16.5	26.7	31.3	42.1
2232	Art, design and composition	1.2	1.2	1.0	1.3	1.5	1.7
7494	Photo mechanic and related services	0.6	1.5	0.5	0.6	0.7	0.7
9211	Binding of printed sheets	0.4	0.4	0.4	0.5	0.5	0.6
9214	Finishing and laminating	0.8	72.2	0.5	0.5	3.4	0.5
Total		117.1	178.9	106.7	102.4	109.4	131.2

Source: This study.

The imports of the interdependent industries represent the highest values and have shown very dynamic trends, specially imports of television and radio transmitters and apparatus for line telephony and line telegraphy (3220); office, accounting, and computing machinery (3000); television and radio receivers, sound or video recording or reproducing apparatus, and associated goods (3230). All of these articles are used for reproducing what is produced by the core industries.

Chart 23. Main Imports of the Interdependent Industries



Source: This study.



Table 38. Imports of the Interdependent Industries

Millions of US dollars

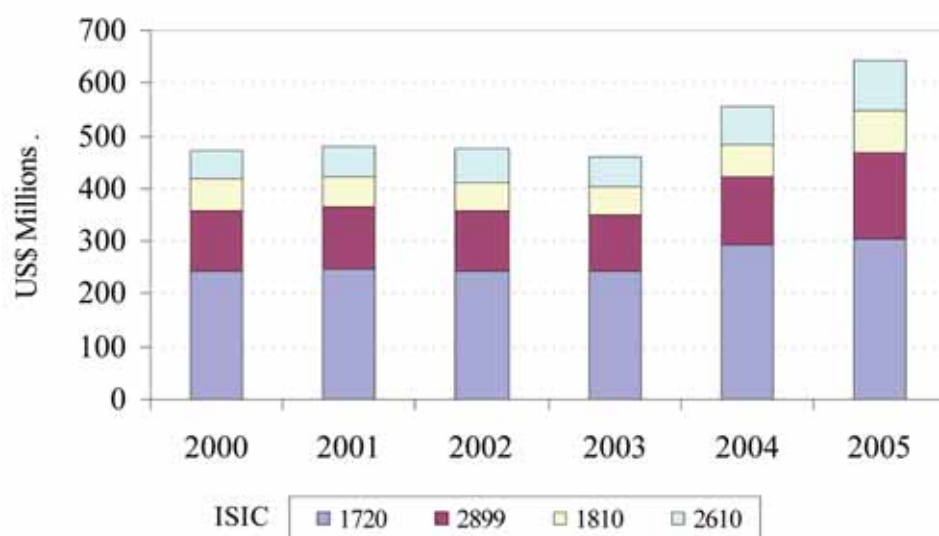
ISIC	Description	2000	2001	2002	2003	2004	2005
2101	Manufacture of pulp, paper and paperboard	351.9	328.8	321.0	336.2	384.8	443.8
2109	Manufacture of other articles of paper and paperboard	39.1	34.5	38.1	40.6	41.0	41.6
2429	Manufacture of other chemical products n.e.c	341.8	360.2	364.6	387.2	421.8	480.4
3000	Manufacture of office, accounting and computing machinery	426.2	447.8	461.5	563.7	512.7	690.6
3210	Manufacture of capacitors except fixed and variable electronic capacitors	38.3	44.1	36.5	37.6	54.9	97.0
3220	Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	420.4	442.8	503.5	656.5	820.6	1,461.4
3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods	176.9	257.2	253.3	251.0	348.2	517.7
3320	Manufacture of optical instruments and photographic equipment	44.5	42.7	49.4	51.6	52.8	65.0
3692	Manufacture of musical instruments	4.9	4.8	4.9	5.6	5.1	7.3
Total		1,844	1,963	2,033	2,330	2,642	3,805

Source: This study.

Source: This study.

On the other hand, the imports of the partial industries include a wide range of articles which are not only required by the core industries but also by other sectors. In fact the two main imports of this group do not seem to have close connections with the core industries except for aspects related to design and ownership rights of certain production processes.

Chart 24. Main Imports of the Partial Industries



Source: This study.

Table 39. Imports of the Partial Industries

Millions of US dollars

ISIC	Description	2000	2001	2002	2003	2004	2005
1720	Manufacture of made-up textile articles	242.4	247.9	244.5	245.4	294.1	303.2
1750	Manufacture of knitted and crocheted fabrics and articles	29.2	31.2	28.2	32.0	50.3	47.6
1810	Manufacture of wearing apparel	59.1	55.5	55.9	52.3	59.1	80.8
1921	Manufacture of footwear with uppers of leather, other than sports footwear	0.8	0.7	0.7	0.6	0.7	0.7
1922	Manufacture of footwear with uppers of textile materials, other than sports footwear	0.2	0.6	0.1	0.0	0.1	0.0
1925	Manufacture of footwear with outer soles and uppers of rubber, other than waterproof footwear, sports footwear	25.0	29.0	21.4	17.3	18.1	20.0
1929	Manufacture of footwear with outer soles and uppers of plastics, other than waterproof footwear, sports footwear	0.0	0.0	0.0	0.0	0.0	0.0
2020	Manufacture of sports footwear, except skating boots	13.7	15.9	21.0	20.9	28.4	40.4
2030	Manufacture of footwear n.e.c.	3.0	4.6	3.4	4.6	8.8	10.2
2090	Builders' joinery and carpentry	2.7	3.5	3.9	3.8	5.8	6.3
2610	Packing cases, boxes, crates, drums and similar wood packaging	54.0	57.5	63.4	57.2	71.6	96.4
2899	Other wood products; articles of cork plaiting materials and straw	116.5	118.3	111.7	105.1	129.9	163.0
3611	Manufacture of glass and glass products	0.6	0.5	0.7	0.4	0.5	1.7
3612	Manufacture of other fabricated metal products n.e.c.	1.7	1.8	2.2	1.4	0.5	0.8
3619	Manufacture of furniture for households	0.3	0.4	0.3	1.1	6.2	11.7
3691	Manufacture of furniture for offices	3.1	5.0	4.7	5.6	7.0	9.8
3694	Manufacture of furniture for trade and services	42.9	47.6	47.7	42.1	52.3	71.5
7421	Manufacture of other furniture n.e.c.	0.0	0.0	0.0	0.0	0.0	0.0
Total		597.1	621.6	611.4	591.1	733.9	864.5

Source: This study.

Finally, it should be emphasized that the non-dedicated support industries are not involved in importing.

6.7. Trade Balance of the CBI

The net balance of the CBI shows that imports totaled 4,800 million US dollars (CIF), more than double the figures for exports of 2,138 million US dollars (FOB). Whereas the CBI exports contribute 16.7 per cent to the total industrial exports and 10 per cent of the total Colombian exports, imports account for 24 per cent of total industrial imports and 22.6 per cent of total imports.



Table 40. Trade Balance of the CBI

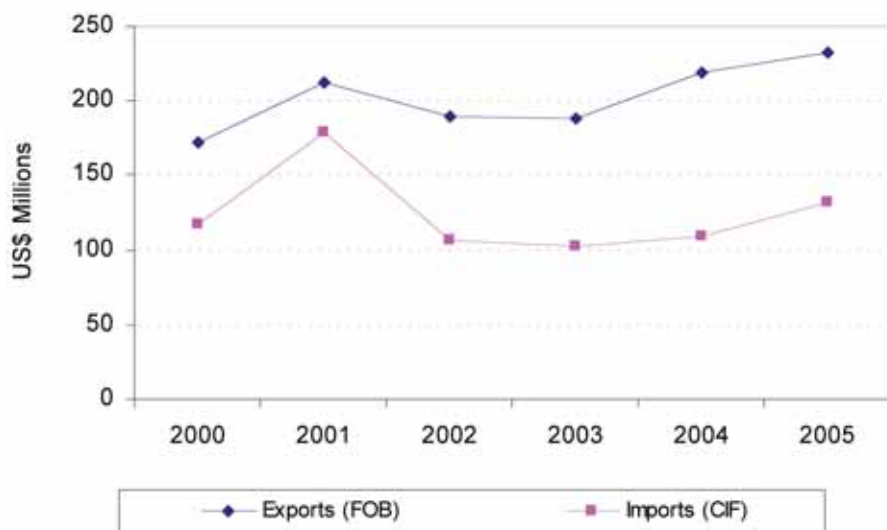
Millions of US dollars

	2000	2001	2002	2003	2004	2005
Core	55.4	33.7	83.0	85.7	109.4	101.5
Interdependent	-1,617.3	-1,679.8	-1,749.2	-2,002.5	-2,249.1	-3,371.2
Partial	306.4	365.4	338.6	442.3	643.5	607.0
Non-Dedicated Support	0.0	0.0	0.0	0.0	0.0	0.0
Total CBI	-1,255.6	-1,280.8	-1,327.6	-1,474.6	-1,496.1	-2,662.6

Source: This study, based on external trade figures from Colombia's National Statistics Department.

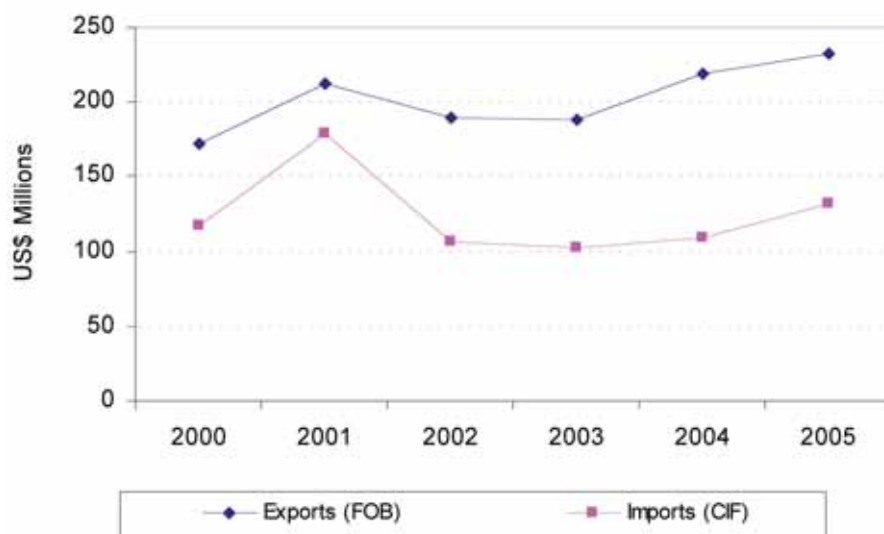
This general analysis indicates that the country is a net importer of the CBI goods and services (Chart 25). However, this trade deficit is greatly influenced by the huge imports of the interdependent industries because, if only the transactions of the core group are considered, the trade balance is positive, i.e. Colombia is a net exporter of CBI goods and services (Chart 26).

Chart 25. Trade Balance of the CBI



Source: This study.

Chart 26. Trade Balance of the Core Industries



Source: This study.

6.8. CBI Service Exports

The following table shows the value of exports and imports of CBI services.

Table 41. Foreign Trade in CBI Services

	2000	2001	2002	2003	2004	2005	2006
CBI Non-Factor Services	-281	-289	-288	-305	-348	-415	-498
i. Exports	252	255	228	252	343	429	586
ii. Imports	533	544	515	556	691	844	1,084
Information technology services	-42	-33	-23	-56	-49	-98	-108
i. Exports	4	8	6	16	17	21	35
ii. Imports	46	40	29	72	66	119	143
Telecommunication services	4	5	3	2	3	5	4
i. Exports	14	14	11	10	14	16	19
ii. Imports	9	9	8	8	11	11	15
Professional and technical services to business	-17	-19	-16	-15	-20	-20	-24
i. Exports	3	3	3	5	7	10	18
ii. Imports	20	21	19	20	28	31	42

	2000	2001	2002	2003	2004	2005	2006
CBI Non-Factor Services	-281	-289	-288	-305	-348	-415	-498
Personal, cultural and recreational services	-3	-2	-1	2	8	-2	-12
i. Exports	23	25	27	31	39	41	46
ii. Imports	27	27	28	29	31	44	58
Audiovisual and related services	-15	-3	-3	-8	-5	-17	-25
i. Exports	12	24	24	20	26	24	28
ii. Imports	26	27	27	29	31	41	53
Other personal, cultural and recreational services	11	1	2	10	12	15	12
i. Exports	12	1	3	11	13	17	18
ii. Imports	1	1	1	1	1	3	5

Source: Based on non-factor services in the balance of payments (BOP), Central Bank figures.

For all services, the values that appear in the BOP are considered, except for telecommunications and professional services. For these items only 7.5 per cent of the declared value has been taken into consideration.

The CBI service exports and imports correspond specifically to the transactions in the non-factor services, which refer to those transactions that are not derived from production factors but from the offer of services resulting from the possession of real goods or financial products.

The balance of services in relation to the CBI is negative: this is derived from the imports of information technology services, which have tripled during the period 2000-2006. On the other hand, audiovisual and related services are Colombia's main service exports in this group with sales more than doubling during this period of analysis. Likewise, the exports of information technology services and professional and technical services to businesses have gained importance due to their recent dynamic performance during the period 2005-2006.

7. Conclusions

The present study has aimed to measure the economic scope, in aggregate terms and at the macro level, of the CBI in Colombia. It has also shown that the function of copyrights and related rights can be examined, like any other rights, in economic terms.

Likewise, this study has emphasized that these industries, within the framework of cultural heritage, constitute a potential source of economic growth and development.

- The CBI make an important economic contribution to the country. In 2005, they contributed 3.3 per cent to GDP; generated 1,031,323 jobs representing 5.8 per cent of total national employment; accounted for exports worth 2,138 million US dollars.
- These industries exhibited more robust growth rates than traditional sectors of the Colombian economy.

The quantitative analysis done in this study shows that these industries: i) mobilize huge resources, generate wealth, employment and foreign exchange; ii) have close economic, industrial, and technological relations with other sectors of the economy; iii) occupy an important place among the best growth performing sectors; iv) present greater economic value compared to many industries engaged in the production of traditional goods and services.

In a globalized world, and with the opportunities offered by the new economy based on the interaction of information and communication technology (ICT), the competitive advantages of the country are not based so much on the abundance of natural resources and the production of non-tradable goods, but on the introduction of components for technological and organizational innovation and strategic information (elements of knowledge).

The CBI include dynamic sectors associated with the ICT which, aside from opening new fields of application for copyright and related rights, will in the immediate future generate new investment, increasing their participation in the economy.

The purpose of quantifying the economic contribution of the CBI to the value added, national employment, and foreign exchange income is to make these industries “visible” to the public and to potential investors and financiers (the public sector, firms and private investors).

From the point of view of public policy, the purpose of this study is to direct specific action which will enable the consolidation and expansion of this sector. This means to encourage implementation of policies which will influence the allocation of resources to generate production capacity at the national or local levels; enhance human resource training through the promotion of professional and technical training; promote the generation of systems of information; diffusion and appropriation of technology.

In Colombia, the CBI are important with their high rate of production and they are characterized for their heterogeneity and different levels of development. They include dynamic sectors associated with the ICT which, aside from opening a range of applications of copyright and related rights, will generate new investments elevating their participation in the economy in the future.

Following global trends in the coming years, the CBI will receive major levels of private investment and will increase their productivity and competitiveness, especially if the right investment climate exists, and this

depends primarily on the effective protection of intellectual property and in particular of copyright and related rights.

Therefore, it is clear that to grant a higher effective protection to these rights provides the conditions necessary to enhance the economic contribution of the activities of creation and innovation in the country. It is, however, evident that the development of some core industries is impeded by piracy.

Against the new demands of the economic environment defined by new technologies in information and communication, value creation and globalization and free trade agreement negotiations, the development of CBI will depend primarily on the capacity of firms to modernize their productive processes, develop synergy and differentiated products, improve market access and create business opportunities.

In this context and considering the rapid development of communication systems, it is fundamental to ensure the strengthening and the modernization of organizations that work collectively to respond to new market conditions and to guarantee in a transparent manner the benefits that should be granted to holders of copyright and related rights.

The results of this study and their supporting methodology are important inputs to strengthen the efforts initiated in the country to set up a satellite account for culture. Likewise, this study lays the foundation for measuring the economic contribution of the CBI to the national economy with a unified methodology and in a sustainable way.

The current satellite account is broad and open, and allows for “ the possibility of additional future research to improve the quality of the measurements already taken and to enrich the forms of measurement of some phenomena specific cultural activities.” (DANE, 2000)

One of the major difficulties in ensuring the adequate monitoring of the structure and performance of the CBI is caused by the dispersion and heterogeneity of information in them, especially in those activities that cannot be measured directly with physical products. It is important that organizations mandated to protect copyright and related rights promote the creation of standardized information systems for the continuous monitoring of the CBI among the associations of related activities.

8. Annexes

Annex 1. The CBI in Colombia

Table 42. International Standard Industrial Classification (ISIC) of Copyright-Based Industries (CBI) adapted for Colombia

ISIC	ISIC Copyright-Based Industries
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1. Core 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

2. Interdependent 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.

3. Partial 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

4. 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

Annex 2. Manufacturing Employment in the CBI, 2000-2005

Table 43. Manufacturing Employment in the Core Industries

	2003	2004	2005	2006
Core Industries	270,850	289,573	301,299	321,846
2211 Publishing of books, brochures and other publications	14,376	15,168	17,360	18,774
2212 Publishing of newspapers, journals and periodicals	12,537	15,213	11,203	22,407
2213 Music publishing	825	704	702	710
2219 Other publishing	215	146	221	325
2220 Printing	42,884	47,046	52,487	49,731
2231 Art, design and composition	2,077	2,525	1,713	7,217
2232 Photo mechanic and related services	2,337	2,509	2,342	3,382
2233 Binding of printed sheets	4,604	9,253	10,492	10,327
2234 Finishing and laminating	6,720	6,879	7,051	6,608
2239 Other publishing related services n.e.c.	145	221	264	352
7210 Consultancy on information systems	1,322	1,522	1,530	1,567
7220 Production of information software	19,924	20,764	20,915	21,571
7230 Data processing	22,752	18,895	16,524	17,053
7430 Advertising	28,163	23,450	25,345	26,233
7494 Photographic activities	19,302	20,410	21,421	21,954
9112 Activities of professional organizations	795	665	680	715
9211 Motion picture and video production and distribution	870	2,992	3,010	3,211
9212 Motion picture projection	1,725	2,637	3,343	3,411
9213 Radio and television activities	13,348	11,110	14,453	16,197
9214 Dramatic arts, music and other arts activities	31,183	35,198	36,225	36,377
9219 Other entertainment activities n.e.c.	10,198	10,587	11,122	9,143
9231 Library and archive activities	1,749	3,226	1,101	1,410
9249 Other recreational activities	32,799	38,453	41,795	43,171

Source: This study.

Table 44. Manufacturing Employment in the Interdependent industries

	2003	2004	2005	2006
Interdependent Industries	123,521	128,684	132,471	140,606
2101 Manufacture of pulp, paper and paperboard	7,472	7,708	7,977	8,032
2109 Manufacture of other articles of paper and paperboard	13,675	13,937	15,603	15,931
2429 Manufacture of other chemical products n.e.c	10,866	10,056	9,165	9,921
3210 Manufacture of capacitors except fixed and variable electronic capacitors	2,630	2,694	2,715	3,214
3220 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	4,121	4,501	4,829	5,348
3230 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods.	2,309	2,415	2,678	3,354
3320 Manufacture of optical instruments and photographic equipment	1,419	1,954	2,756	3,004
3692 Manufacture of musical instruments	2,425	2,598	2,194	2,622
5237 Wholesale of office, accounting and computing machinery	28,454	32,725	37,124	40,082
5244 Retail sale of books, newspapers, magazines, office supplies in specialized stores	49,155	49,068	46,272	47,297
7123 Renting of office machinery and equipment (including computers)	995	1,028	1,158	1,801

Source: This study.

Table 45. Manufacturing Employment in the Partial Industries

	2003	2004	2005	2006
Partial Industries	306,544	318,997	332,873	352,426
1720 Manufacture of made-up textile articles	19,316	20,867	21,028	22,300
1750 Manufacture of knitted and crocheted fabrics and articles	27,340	24,151	25,103	25,979
1810 Manufacture of wearing apparel	37,767	38,044	35880	36,433
1921 Manufacture of footwear with uppers of leather, other than sports footwear	6,716	6,196	6,207	6,527
1922 Manufacture of footwear with uppers of textile materials, other than sports footwear	186	146	138	159
1923 Manufacture of footwear with outer soles and uppers of rubber, other than waterproof footwear, sports footwear	24	33	30	31
1924 Manufacture of footwear with outer soles and uppers of plastics, other than waterproof footwear, sports footwear	263	342	462	525
1925 Manufacture of sports footwear, except skating boots	308	383	488	495
1929 Manufacture of footwear n.e.c.	6,508	7,557	7,673	8,008
2020 Manufacture of other wood products	1,100	1,425	1,055	1,461
2030 Builders' joinery and carpentry	6,381	6,635	7,355	8,214
2040 Packing cases, boxes, crates, drums and similar wood packaging	2,820	1,027	1,471	1,587
2090 Other wood products; articles of cork plaiting materials and straw	44,292	49,733	55,145	56,220
2610 Manufacture of glass and glass products	2,699	4,607	4,570	5,670
2899 Manufacture of other fabricated metal products n.e.c.	12262	13,885	14,012	15,416
3611 Manufacture of furniture for households	7,134	7,616	7,681	7955
3612 Manufacture of furniture for offices	4,240	5,011	5,583	6,728
3613 Manufacture of furniture for trade and services	1,204	1,091	1,609	3260
3619 Manufacture of other furniture n.e.c.	114	176	183	211
3691 Manufacture of jewelry and related articles	11,376	12,941	14,458	16,525
3694 Manufacture of games and toys	22,126	8,889	10,799	12,007
7130 Wholesale and retail sale of music and video recordings	21,484	28,315	29,362	32,521
7421 Architectural and engineering activities and related technical consultancy	17,989	20,328	20,211	20,916
7499 Other business activities n.e.c. (translation and interpretation)	49,458	56,079	58,763	59,161
9232 Museum activities and preservation of historical sites and buildings	3,441	3,525	3,611	4,121

Source: This study.

Table 46. Manufacturing Employment in the Non-Dedicated Support Industries

	2003	2004	2005	2006
Non-Dedicated Support Industries	240,839	250,688	264,860	282,552
5119 Wholesale on a fee or contract basis of products n.e.c.	66	71	105	114
5131 Wholesale of textiles, clothing and footwear	1,732	1,734	1,546	1,668
5132 Wholesale of clothing and fur articles	4,733	5,315	5,212	5,218
5133 Wholesale of footwear	774	2,164	1,615	1,673
5134 Wholesale of electronic and telecommunication parts and equipment	1,058	1,145	1,926	2,166
5137 Wholesale of paper and paperboard and their products	3,208	5,556	6,188	5,493
5139 Wholesale of other household goods	5,214	4,562	5,558	5,086
5154 Wholesale of textile fibers	636	824	633	822
5159 Wholesale of other intermediate products, waste and scrap	968	972	1,171	1,154
5163 Wholesale of office, accounting and computing machinery	2,314	2,638	2,693	2,519
5190 Other wholesale	3,962	5,306	3,638	3,826
6041 Local freight transport by road	26,152	24,826	24,793	25,264
6042 Interurban freight transport by road	30,822	38,730	47,132	47,657
6043 International freight transport by road	623	820	799	458
6111 International water transport	346	1,069	151	111
6112 Coastal water transport	1,358	2,464	2,556	2,678
6120 Inland water transport	7,659	1,912	1,500	2,081
6212 National freight air transport	248	244	182	107
6214 International freight air transport	517	478	418	650
6310 Cargo handling	31,300	23,444	23,589	23,660
6320 Storage and warehousing	1,998	2,065	3,080	3,600
6390 Activities of other transport agencies	7,211	9,837	3,180	4,107
6411 National post activities	2,194	1,913	1,873	2,315
6412 Courier activities other than national post activities	28,108	26,263	26,548	27,114
6421 Telephone services	60,152	63,910	72,904	81,651
6422 Network data transmission	1,349	5,038	9,881	11,778
6423 Radio and television program transmission, on a fee or contract basis	1,562	1,753	1,122	1,710
6424 Wired telecommunication carriers	8,061	8,491	8,762	11,451
6425 Other telecommunication services	228	262	156	313
6426 Telecommunication-related services	4,378	4,933	3,842	3,954
7240 Database activities and on-line distribution of electronic content	1,913	1,952	2,111	2,158

Source: This study.

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