Economist Intelligence Unit

The Economist

Intellectual-property environment in Colombia

A report from the Economist Intelligence Unit
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Executive Summary

- The intellectual-property (IP) environment in Colombia has strengthened over the past few years as economic growth had enabled increased spending on innovation and the development of the information-technology sector.
- The role and effect of IP on the Colombian economy is extensive, despite the fact that the country is not typically regarded as a high-technology leader.
- In expanding its network of trade partners to attract new foreign investment, Colombia has signed numerous regional- and bilateral-trade agreements and investment-protection agreements in recent years; these have improved the legal framework for IP protection and then supported additional investment in private sector innovations.
- Public sector research and development (R&D) funding constitutes 40% of total R&D funding. Government R&D investment is primarily directed towards activities carried out by higher-education institutions and private non-profit organisations.
- The private sector accounts for 27% of R&D funding and carries out 22.2% of total R&D expenditures. By comparison, the business sector in OECD countries accounts for 70% of total R&D expenditures.
- Despite comprehensive legislation and important progress in recent years, enforcement of intellectual-property rights (IPR) in Colombia generally remains lax and infringements are common.
- In January 2009 the government approved a law to transform the Colombian Institute for the Development of Science and Technology (Colciencias) into an administrative department, the Administrative Department for Science, Technology and Innovation.

Introduction

Intellectual property (IP) and intellectual assets, defined by the OECD as innovation-oriented activities that rely on research and development, patents, industrial designs and even education, have become important investment factors for companies and economies worldwide. Globalisation, the expansion of the services sector and new information technologies have changed the way companies operate and the way in which value is created. These phenomena have transformed corporate investment, expanded the role of intellectual property in economic development and expansion, and focused a spotlight on the subject.

Enforcement of IP regulations and protection of IP rights have become key issues for this important lever of economic growth. Even in countries not typically regarded as high-technology leaders, the role and effect of intellectual property is extensive. In Colombia, for example, while many technology and IP indicators lag behind the Latin America and Caribbean (LAC) averages, in general the trend for most such metrics in the country is positive. This report presents an overview of key aspects of the intellectual-property environment in Colombia, with emphasis on the growing significance of the sector and an overview of the regulatory environment.

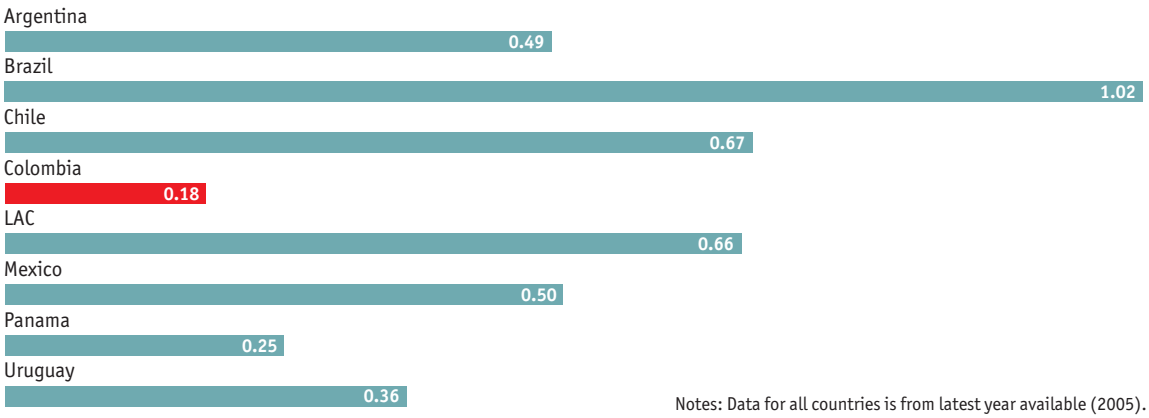
Recent performance of the Colombian economy

The Colombian economy was on a path of strong economic growth before the global financial crisis. Real gross domestic product (GDP) expanded by an annual average of 6.7% in 2005–07 before slowing to 2.4% in 2008 and 0.4% in 2009, according to the Colombian National Statistics Agency (Departamento Administrativo Nacional de Estadística—DANE). The Economist Intelligence Unit forecasts GDP growth of 2.4% for 2010. With a total population of 46.3m in 2009, average per capita GDP (in terms of purchasing power parity) in Colombia is US$8,700, compared to a regional average of US$11,000. To spur growth, the country is broadening its network of trade partners to attract new foreign investment and has signed numerous regional- and bilateral-trade agreements and investment-protection agreements in recent years. These agreements also serve to improve the legal framework for IP protection, and then additional innovation investments in the private sector.

R&D spending trails regional average

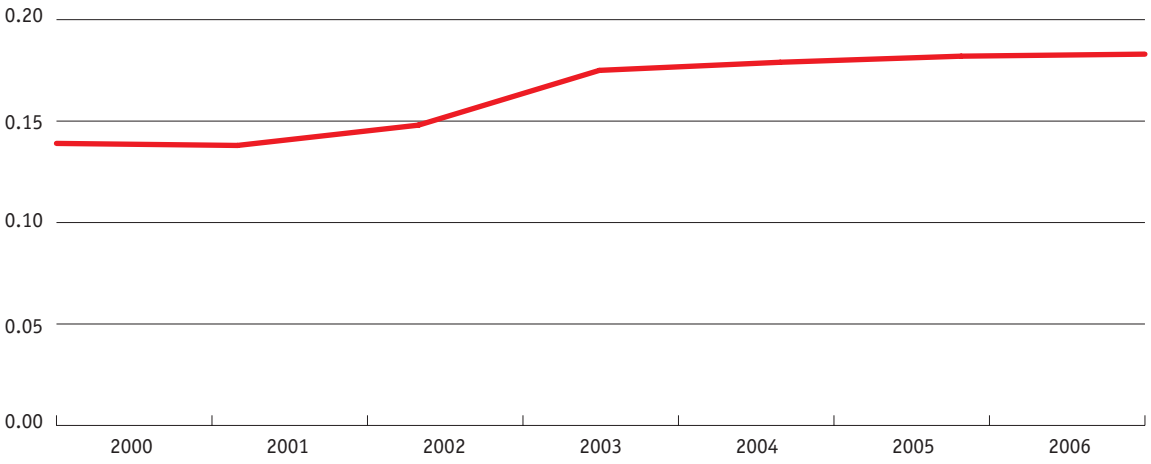
Research and development (R&D) spending, typically a major source of IP, has historically been low in Colombia compared to the regional average, and it has been given a lower priority relative to other corporate investment alternatives. The public sector leads the way in R&D investments funding as

R&D spending as a share of GDP
(%), 2005



Notes: Data for all countries is from latest year available (2005). Data for Chile is from 2004 and for Uruguay is from 2006.
Source: UNESCO.

R&D spending as a share of GDP
(%)



Source: UNESCO.

local companies have not allocated resources to developing the culture of innovation that creates new processes and products. Until now, companies have focused on operating in an environment of public-security concerns and macroeconomic instability, although this pattern appears to be changing.

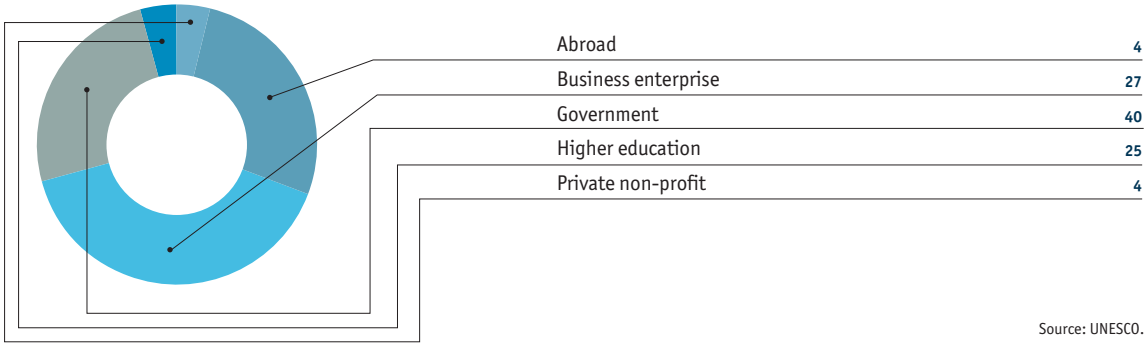
R&D investment as a share of GDP averages 0.66% in the Latin America and Caribbean (LAC) region compared to the OECD average of 2.26%. Although nearly US$300m in 2006 (Economist Intelligence Unit estimates), the intensity of Colombia's R&D spending trails both the regional average for LAC countries and the OECD average. Nonetheless, since 2005 Colombian investments in R&D have been positioned to rise as the macroeconomic and investment climate have improved; the legal framework has been strengthened to better protect investors; and inflows of foreign-direct investments (particularly in the export-oriented mining and hydrocarbon sectors), have followed an upward trajectory.

The public-sector is the leading source of R&D financing

The public sector funds most research and development in Colombia. Government investment in R&D is primarily directed towards activities carried out by higher-education institutions and private non-profit organisations. As the two charts below demonstrate, nearly 40% of R&D is financed by the Colombian government, but the public sector spends just 8.3% of this funding, according to figures from UNESCO. Higher-education institutions account for slightly over one-half of R&D spending in Colombia, but account for just 25% of total R&D investment in the country. The private sector accounts for 27% of R&D investment and carries out 22.2% of total R&D activity. By comparison, the business sector in OECD countries accounts for 70% of total R&D expenditures. According to the OECD, R&D expenditures made by the business sector are more closely correlated with the creation of new products and innovation of operations than R&D expenditures carried out by the public sector or higher-education institutions.

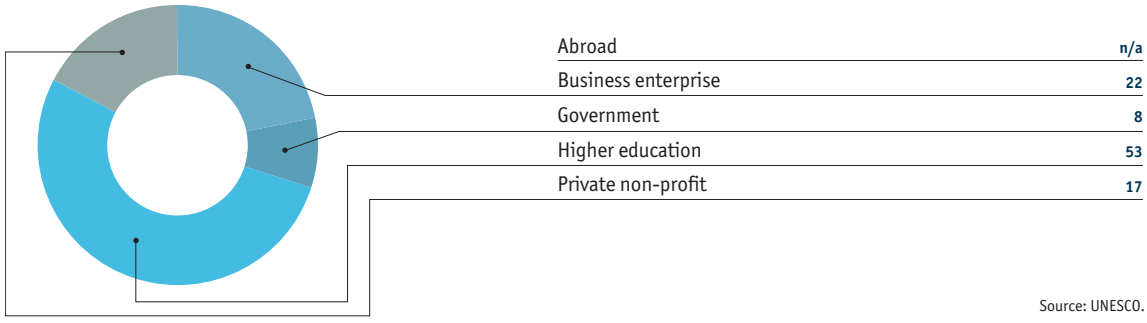
There were approximately 150 researchers in R&D per one million people in Colombia in 2006. This was up from 115 in 2004 and just 99 in 2002. However, the number of R&D researchers in Colombia still trailed

R&D investment in Colombia
(%)



Source: UNESCO.

R&D expenditure in Colombia
(%)



Source: UNESCO.

the regional average of 495 in 2005, according to the latest figures available from the World Bank.

IT spending in Colombia was estimated to reach US$4.1bn in 2009, growing by 9.4% over the previous year, according to the International Data Corporation (IDC). Along with this rise in spending, the IDC expects that some 600 new IT businesses and 48,000 new IT jobs will be created in the 2009-13 period.

In an effort to improve co-ordination of public-sector sponsored R&D, in January 2009 the government approved a law to transform the Colombian Institute for the Development of Science and Technology (Colciencias) into an administrative department, the Administrative Department for Science, Technology and Innovation (Law 1286). Under the mandate, the new administrative department—still referred to as Colciencias—oversees the R&D funds of all governmental bodies. It was announced in March 2010 that Colciencias will receive a US$500m loan from the Inter-American Development Bank and the World Bank, which Colciencias will direct towards improving the efficiency of its operations and boosting innovation in science and technology. Sectors determined by Colciencias as important to the development of a more innovative and competitive Colombian economy include clean energy (particularly biofuels) and creative industries.

Technology content of exports

Colombia's export sector grew by an annual average of 8.8% in real terms in 2004–08, rising by 52% from end-2003 through end-2008, according to DANE. However, the value of exports contracted by 8.2% in 2009, as a result of the global financial crisis, trade disputes with Venezuela and a fall in the price of oil from its peak in 2008. The Economist Intelligence Unit forecasts export growth of 6.8% in 2010, based on an increase in the global price of oil, an upturn in global trade activity and rising investments to export-oriented sectors. Approximately 80% of inflows of foreign-direct investment (FDI) to Colombia in 2009 went to mining and hydrocarbon projects, totalling a combined US$5.7bn, according to the central bank. In contrast, just 32% (or US$3.2bn) of FDI inflows was allocated to these sectors in 2005.

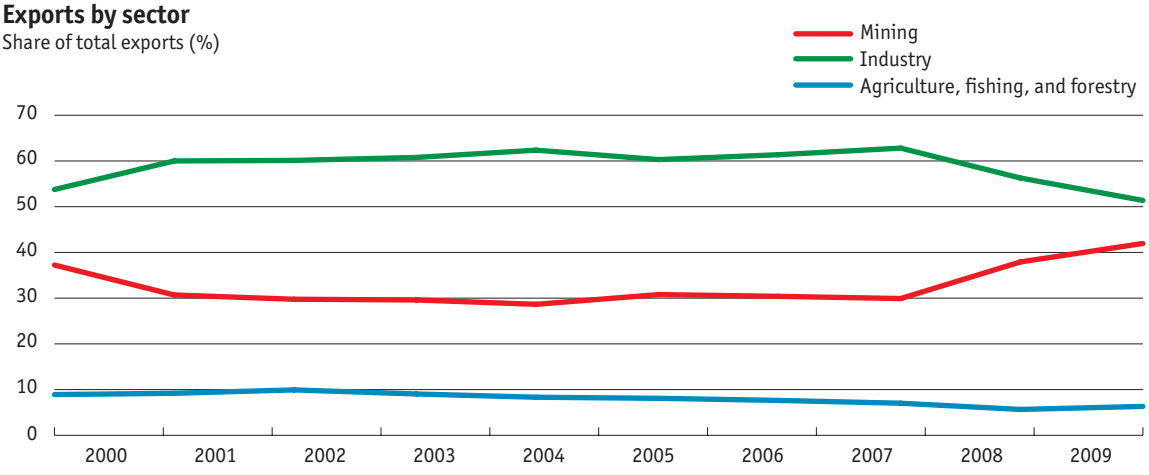
Colombia's high-technology exports

Indicator	2006	2007	2008
Exports of goods and services as a share of GDP (%)	17.83	16.87	18.24
Exports of goods and services, real annual growth (%)	7.98	11.39	7.25
High-technology exports as a share of total manufactured exports (%)	4.02	3.88	3.75
Value of high-technology exports (current US$ m)	348.9	338.5	444.9
Value of high-technology exports as a share of LAC high-tech exports (%)	0.71	0.71	0.77

Source: Economist Intelligence Unit; World Development Indicators, World Bank.

Since 2007, Colombia's exports have increasingly shifted towards mining and away from industry. Commodity exports comprise an important share of Colombia's trading activity. Exports of oil, coal, coffee and ferrous-nickel—the so-called "traditional exports"—accounted for 54.6% of total exports in 2009, according to DANE. Historically, the United States and the European Union have been the main destinations for traditional exports. Non-traditional exports are highly diversified, though dominated by standardised manufactures: chemicals, processed foods, apparel, plastics and basic metals. Non-traditional exports are usually destined for Latin American countries and the US.

Exports by sector
Share of total exports (%)

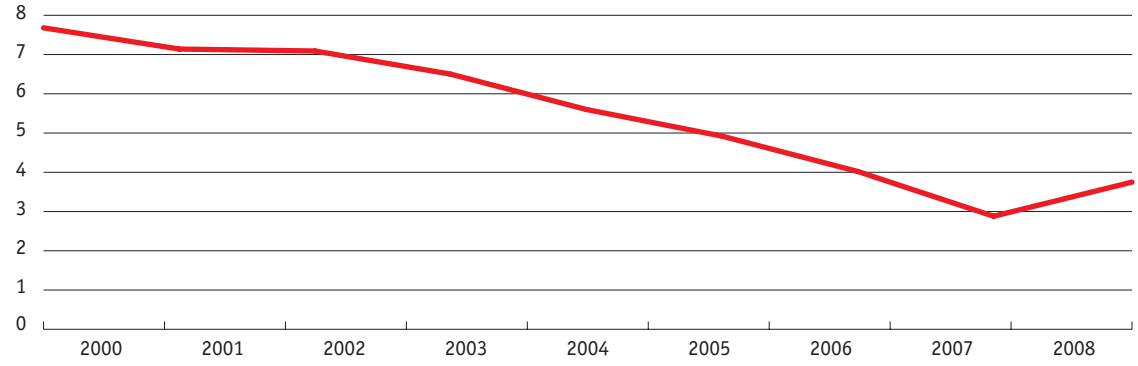


Source: Colombian National Statistics Agency (Departamento Administrativo Nacional de Estadística—DANE).

Colombia's top exports in 2009 were petroleum and petroleum products (valued at US$10.3bn, or 31.25% of total exports); coal (US$5.4bn, 16.49%); chemicals (US$2.5bn, 7.56%); food and beverages (US$2.3bn, 7.05%), coffee (US$1.5bn, 4.7%); and basic metallurgy (US$2.1bn, 6.3%).

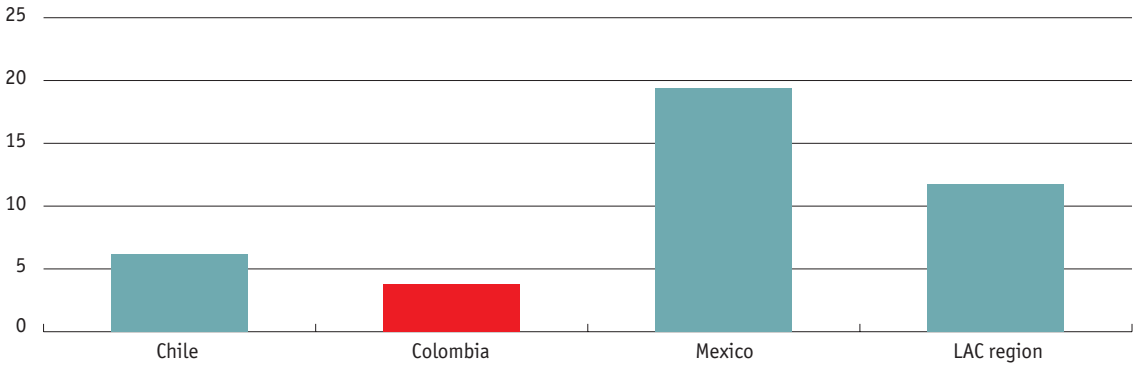
High-technology exports as a share of manufactured exports are beginning to rise gradually, reversing a declining trend from 2000–07, although this ratio remained relatively low, at 3.75% in 2008. The high-technology content of Colombian manufactured exports lags behind that of the regional average of 11.72%. By comparison, Mexico's manufactured exports have a much higher (19.4% in 2008) technology content.

High-technology exports as a share of manufactured exports
(%)



Source: World Bank.

High-technology exports as a share of manufactured exports
(%), 2008



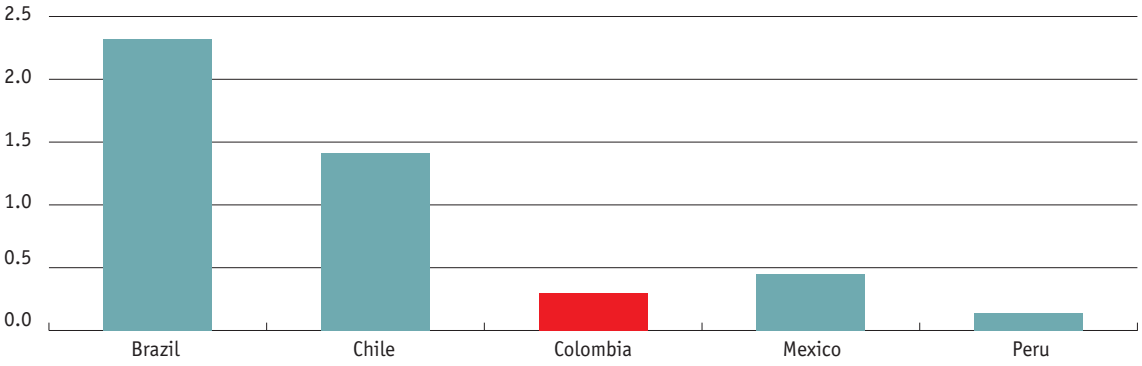
Source: World Bank.

Patents

Colombia has a relatively low number of gross annual patent filings; less than 2,000 applications—from residents and non-residents combined—were submitted in 2007, according to figures from the World Intellectual Property Organisation (WIPO). Patents in Colombia have a high concentration of foreign ownership, with most patent applications filed by—and granted to—companies or individuals based outside of Colombia. Almost 94% of patent filings in 2007 were submitted by foreigners.

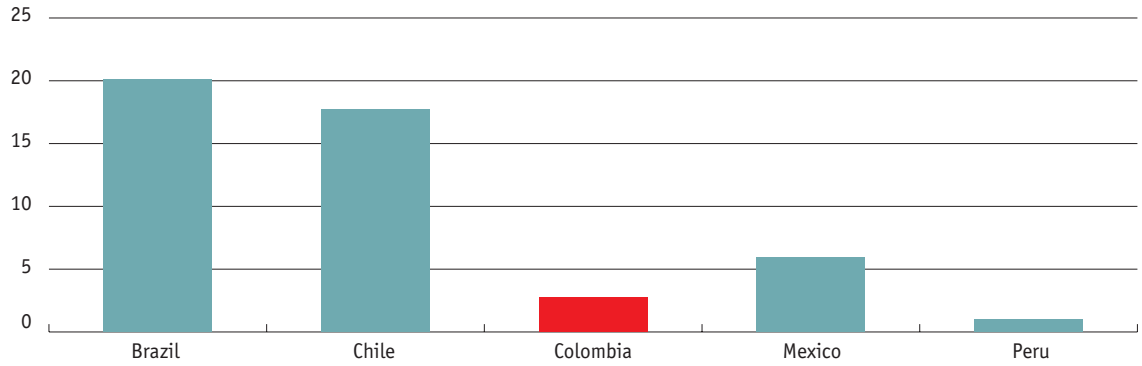
Accordingly, the intensity of patent filings submitted by residents, both in relation to the size of the economy and the population, is low. Resident patent filings as a share of GDP approximated just 0.30% in Colombia in 2007, compared with a higher 2.32% in Brazil, 1.41% in Chile and 0.45% in Mexico. Resident patent filings per one million people approximated 2.75% in Colombia in 2007, trailing a share of 20.12% in Brazil, 17.71% in Chile and 5.97% in Mexico.

Resident patent filings as a share of GDP
(%), 2007



Notes: Data for Brazil and Chile are from 2006; GDP figures are in US$bn.
Source: World Intellectual Property Organisation (WIPO).

Resident patent filings as a share population
(%), 2007



Notes: Data for Brazil and Chile are from 2006; populations figures are in millions.
Source: World Intellectual Property Organisation (WIPO).

Of the more than 5,000 patents in force in Colombia in 2007, the US held the highest share of ownership over these inventions, followed by Germany and Switzerland, according to figures from WIPO. Foreigners held 95.7% of all patents granted as at end-2007. Colombians held just 236 patents in force, or about 4.3% of the total.

Patent filings in Colombia

Indicator	2007
Number of patent filings, total	1,981
Number of patent filings, residents	121
Number of patent filings, non-residents	1,860
Number of non-resident patent filings as a share of total patent filings (%)	93.9
Resident patent filings as a share of GDP in US$ bn (%)	0.30
Number of patents granted, total	227
Number of patents granted, residents	20
Number of patents granted, non-residents	207
Number of non-resident patents granted as a share of total patents granted (%)	91.2

Patents in force in Colombia (2007)

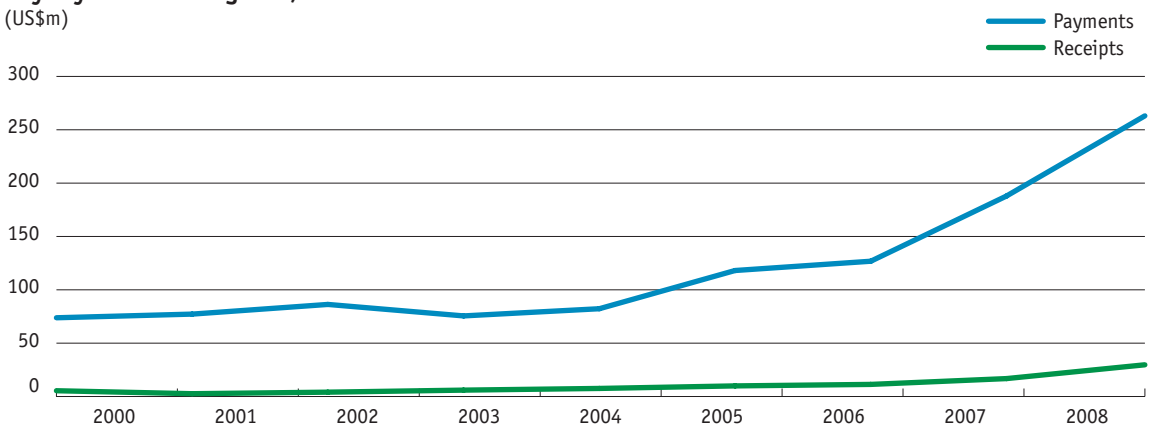
Country of origin (top 10)	Number
United States	2,762
Germany	396
Switzerland	317
Colombia	236
France	205
United Kingdom	156
Sweden	144
Netherlands	116
Brazil	87
Japan	79
Sub-total (10 countries)	4,498
Total patents	5,485

Source: World Intellectual Property Organisation—WIPO.

Licences

In the past, restrictions established by the Andean Community (Comunidad Andina de Naciones—CAN) on foreign investment and imports made licensing a favoured route for foreign companies doing business in Colombia. Licensing agreements are common, particularly where Colombian companies obtain technology, knowledge or brand transfer from companies in other countries. Colombian payments of royalties and licensing fees abroad totalled US$263m in 2008, whereas receipts from abroad amounted to US$30m, according to the World Bank. Licensing agreements covering trademarks or patents must be registered with the Superintendency of Industry and Commerce (Superintendencia de Industria y Comercio—SIC).

Royalty and licensing fees, Colombia
(US$m)



Note: Figures are from the balance of payments.
Source: World Bank.

Overview of Colombia's intellectual-property environment

Intellectual-property rights in Colombia are protected by a combination of national laws and international conventions and agreements. Colombia is a member of the World Trade Organisation (WTO) and the World Intellectual Property Organisation (WIPO). It has signed the Paris Convention for the Protection of Industrial Property, the Patent Co-operation Treaty (PCT) and the Union for the Protection of New Plant Varieties (UPOV).

Despite comprehensive legislation and important progress in recent years, enforcement of intellectual-property rights (IPR) in Colombia generally remains lax and infringements are common. Enforcement of IPR and prosecution of IPR infringers is still weak, owing to inefficiencies in the judiciary and limited budgets of enforcement agencies. Although the Colombian police have conducted raids, the judicial process is slow and cumbersome, and it fails adequately to punish infringers of IPR. Piracy and counterfeiting are rife in businesses such as software and apparel.

USTR Watch List

In its latest annual report released in April 2010, the US Trade Representative (USTR) kept Colombia on the official lower-level Watch List for high piracy levels (one notch below the Priority Watch List rankings). Latin American and Caribbean countries Argentina, Chile and Venezuela were put on the Priority Watch List, whereas Brazil, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Mexico and Peru were on the Watch List.

The USTR cited Colombia's improvements in co-ordinating the enforcement of IP among several agencies, a move that will require additional resources and continued training efforts in order to be effectively sustained. The Colombian government has increasingly moved against IPR violations, including through raids to seize counterfeit goods and measures to reduce pharmaceutical counterfeiting. However, the USTR noted that the country still needs to reduce piracy of optical-media products. Colombia should also develop a system to prevent the issuance of market approvals for unauthorised pharmaceutical copies.

International Property Rights Index

In the 2010 International Property Rights Index (IPRI) created by the Property Rights Alliance (US) to compare the respect for physical- and intellectual-property rights among countries, Colombia ranked in

67th place overall, out of 125 countries. In terms of intellectual-property rights specifically, Colombia received a ranking of 50th place. On a regional level, Colombia's IPR protection ranked fifth out of 22 countries in Latin America.

Business software piracy

Business-software piracy is common, particularly among small and medium-sized companies. The Business Software Alliance (BSA) and International Data Corporation (IDC) estimate that the piracy rate in business software in Colombia was 55% in 2009, down from 56% in 2008. In comparison, the estimated average rate of software piracy in Latin America was 63% in 2009, down from 65% in 2008. Software piracy in Colombia resulted in estimated economic losses of US$244m in 2009, up from losses of US$136m a year earlier.

Intellectual-property protection

Copyrights, patents, trademarks, and industrial property are legally recognised in Colombia.

Colombia ratified its adherence to the World Trade Organisation's agreement on Trade-Related Aspects of Intellectual Property (TRIPs) in 1994. As a member country of the Andean Community (Comunidad Andina de Naciones—CAN), Colombia adheres to the community's uniform IP regime. Thus, it follows the Common Industrial Property Regime (CAN Decision 486, in force since January 2001) and the Common Regime on Copyrights and Related Rights (CAN Decision 351 of 1993).

CAN Decision 486 updated patent and trademark legislation for the four member countries (Bolivia, Colombia, Peru and Venezuela); added protection for integrated circuits; broadened the definition of industrial secrets; established border measures to prevent imports of counterfeit goods; maintained the term for patents at 20 years, but increased that for industrial designs from eight to ten years; protected trademarks and industrial secrets for ten years; allowed the patenting of generic drugs; banned second-use patents; and ruled that unmodified micro-organisms, genomes and biological material that can be isolated are still unpatentable (which some in the industry regard as contrary to the TRIPs agreement).

Since 2008, CAN member countries may exercise the option to adopt their own national intellectual-property standards (CAN Decision 689), in effect breaking-up the sub-regional common policy in this matter. This new measure amended Decision 486 in the following areas: it extended the term to submit patent registrations from 12 to 14 months; requires more-detailed information at the time of patent registration; established compensation for unjustifiable delays in issuing patent registration by the local authority; established the possibility to register multi-class trademarks; made the registration of licensing contracts optional; rejected the protection of a trademark when there is not enough clarity about its country of origin; and allowed the enactment of special intellectual-property regimes for border zones.

The intellectual-property chapter of the Colombia-US FTA requires Colombia's adherence to various international treaties on the subject, such as the Budapest Treaty and the Madrid Protocol. It also promotes innovation and technological development; the obligation to compensate the company filing for a trademark whenever the process takes more than five years; protection of ten and five years for the use of patents in agro-chemicals and pharmaceuticals, respectively; and stricter controls on enforcement against piracy and forgery. As at July 2010, however, the US Congress has yet to ratify the FTA.

Under Article 568 of the 1972 Commercial Code (Código de Comercio), courts can impose strict

Intellectual-property law

Conventions

Industrial property. Inter-American Convention on Trademark and Commercial Protection, 1929; International Convention for the Protection of New Plant Varieties, 1978; Paris Convention on Protection of Industrial Property, 1995.

Copyrights. Bern Convention, 1886; Pan-American Convention (Buenos Aires), 1910; Inter-American Convention on the Rights of Authors, 1946; Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations, 1961; Universal Copyright Convention (Geneva: 1952, 1971); Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent, 1977; Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, 1989; International Treaty on the Registry of Audio-visual Works, 1989; WIPO copyright and phonograms treaties, 1996.

Basic laws. Industrial Property Act of 1925, amended 1931; Commercial Code, 1972; Decree Law 1234, 1972; Law 170, 1994; Andean Community (Comunidad Andina de Naciones—CAN) Decision 345, 1993; CAN Decision 391, 1996; CAN Decision 486, 2000 (replaced Decision 344, 1993); Decree 2531, 2000; Resolution 35582 of the Superintendency of Industry and Commerce (Superintendencia de Industria y Comercio—SIC); CAN Decision 689, 2008 (amended Decision 486). For patents, CAN Decision 486; Decree 2153, 1992; and Decree 2591, 2000. For copyrights, Civil Code (Article 671), Law 23, 1982; Law 44, 1993; Law 603, 2000; Law 1032, 2006; and CAN Decision 351, 1993.

Patents

Types and duration. A patent is valid for 20 years and is non-renewable. Patents on industrial models or designs are granted for ten years and are non-renewable.

Novelty. The Superintendency of Industry and Commerce (Superintendencia de Industria y Comercio—SIC) assesses novelty on the basis of three conditions: (1) the non-existence of the invention under the current state of the art; (2) the opinion of an expert who can verify that the invention would not have been the result of the state of the art; and (3) the applicability of the invention in industrial uses.

Unpatentable. Items deemed not to be new or highly inventive or not having a significant effect on industry. Also among unpatentable items are scientific theories; computer software (protected by copyrights only); animal or vegetable varieties; and inventions contrary to health, hygiene, public security or morality.

Compulsory licensing. Anyone may apply for a compulsory licence if a patent is not worked within four years of application or three years after granting (whichever is later); if working is suspended for a year or does not satisfy local demands as to quality, quantity or price; or if the patentee is unwilling to enter into a licensing agreement on reasonable terms.

Trademarks

Types and duration. The types of trademarks are nominative, figurative, mixed, sonorous, olfactory and three-dimensional. Registration is valid for ten years and is renewable for ten-year periods.

Legal effect. Registered trademarks grant proprietary rights.

Not registrable. Marks ineligible for protection include those confusingly similar to previously registered marks or involving generic indications.

Copyrights

Types and duration. CAN Decision 351 provides for copyrights of literary, scientific and artistic creations of any form, including visual; books and written materials; speeches; recordings; and computer software. Duration is the author's lifetime plus 50 years, or 50 years for corporate authors.

Legal effect. Registration conveys moral rights as well as ownership.

penalties for patent infringements: heavy fines and the removal of machinery used to produce the goods in question. The Criminal Code (Código Penal) defines copyright infringement as a crime and provides for prison sentences of 4–8 years. A special unit under the Attorney General's Office (Fiscalía General de la Nación) is exclusively dedicated to IPR issues.

Law 603 of 2000 requires Colombian corporations to submit reports of their compliance with copyright laws to the Colombian Tax and Customs Administration (DIAN) along with their annual financial reports. The DIAN, which treats the use of pirated software as a form of tax evasion, reviews software licenses during routine tax inspections. In 2009, the Colombian Attorney General's Office and DIAN established that

companies determined to be in violation of software piracy will be referred to the Attorney General's special IPR unit. As of 2010, more than 35 companies were facing charges of copyright infringement in the special IPR unit. According to the International Data Corporation (IDC), IT-related operations in the Colombian economy were estimated to contribute US$491m in tax revenues for the government in 2009. The IDC forecasts that IT activities could generate new tax revenues in the amount of US$481m in 2009-13.

Circular 002 of 2010, issued by the Superintendency of Corporations (Superintendencia de Sociedades), clarifies the responsibilities of corporate management in reporting IPR compliance. The circular mandates that the management carry out reviews of adherence to IPR and include this assessment in the annual report required to be filed by Law 603. Fines of up to US$50,000 can be imposed for misrepresentations of information.

Law 488 of 1998 stiffened penalties for contraband. It provides that contraband worth 50–150 minimum wages is punishable by a prison sentence of 3–5 years; contraband worth more than 150 minimum wages is punishable by a prison sentence of 5–8 years.

Registering property

The procedures to register property are outlined in Andean Community (Comunidad Andina de Naciones—CAN) Decision 486 and in locally issued Decree 117 of 1994 and Ruling 210 of Colombia's Superintendency of Industry and Commerce (Superintendencia de Industria y Comercio—SIC).

The SIC oversees the protection of copyrights, intellectual-property rights, patents and industrial secrets. The Services and Technology Committee (Comité de Tecnología y Servicios) of the Ministry of Trade, Industry and Tourism (Ministerio de Comercio, Industria y Turismo) reviews licensing agreements.

The registration process is generally the same for all types of intellectual property. The company must file with the SIC and pay a nominal fee. All patent and trademark agreements must be registered with the central bank (Banco de la República—Banrep) for accounting purposes. Once the information is verified, the application is published in the *Industrial Property Gazette* (*Gaceta de Propiedad Industrial*, published by the SIC).

The registration of new patents is a longer procedure, since experts must study applications and there is a large backlog of applications pending approval. The registration-approval time was reduced to less than five years in 2009, from over six years previously, according to the USTR. Reducing the amount of time required for patent-approvals is among one of the requirements of the US-Colombia FTA, which was still awaiting ratification by the US Congress in July 2010.

According to the SIC, some 20,054 trademarks were issued in 2009, compared with 21,697 in 2008 and 24,049 in 2007. The most active sectors in obtaining trademarks are pharmaceuticals, cosmetic products, processed foods, advertising and clothing. Trademarks may be registered via the SIC website (www.sic.gov.co).

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