

Intellectual-property environment in Chile

A report from the Economist Intelligence Unit
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Executive Summary

- Chile has a strong property-rights regime, and the legal framework for intellectual-property rights (IPR) is being reviewed to meet the requirements of the country's participation in numerous free-trade agreements (FTAs) and international conventions.
- Chile strengthened its intellectual property (IP) regime as part of its accession to the Organisation for Economic Co-operation and Development (OECD) in January 2010. A new law amending the existing IP law entered into force in May 2010.
- Chile is a signatory to all major international IP agreements. In March 2009, Chile became the 140th country to sign the World Intellectual Property Organisation's Patent Co-operation Treaty and to join the International Patent Co-operation Union.
- Enforcement of IPR remains lax, however, particularly with respect to piracy of copyrights and patent-protection.
- Chile's research and development (R&D) spending as a % of GDP is on-par with the Latin American average. Strengthening the competitiveness of exports has spurred R&D activity.
- Chile has placed emphasis on encouraging the development of human capital through quality education from primary through tertiary levels. This has served to foster R&D in higher-education institutions.
- Chile has a strong research base for R&D—there were approximately 832.5 researchers in R&D per one million people in Chile in 2004, up from 772.3 in 2003, and above the regional average of 495 in 2005. According to World Bank estimates, this level is also above the average for the majority of non-OECD countries.

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 intellectual property rights protection 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 Chile, for example, many technology and IP indicators are above the regional averages for Latin America and the Caribbean (LAC).

This report provides a broad overview of key aspects of the intellectual-property environment in Chile, with emphasis on the growing significance of the sector and an overview of the regulatory environment.



Recent performance of the Chilean economy

The Chilean economy withstood the global financial crisis in 2008 and 2009. Real gross domestic product (GDP) expanded by an annual average of 4.9% in 2004–08 before contracting by 1.5% in 2009, according to the central bank (Banco Central de Chile). With a total population of 16.9m in 2009, average GDP-per-capita (in terms of purchasing power parity) in Chile is US\$14,380, above the regional average of US\$11,000 in Latin America and the Caribbean, according to the Economist Intelligence Unit. The Economist Intelligence Unit forecasts GDP growth of 5% in 2010, with significant investment directed towards reconstruction efforts following the massive earthquake that struck south-central Chile in February 2010.

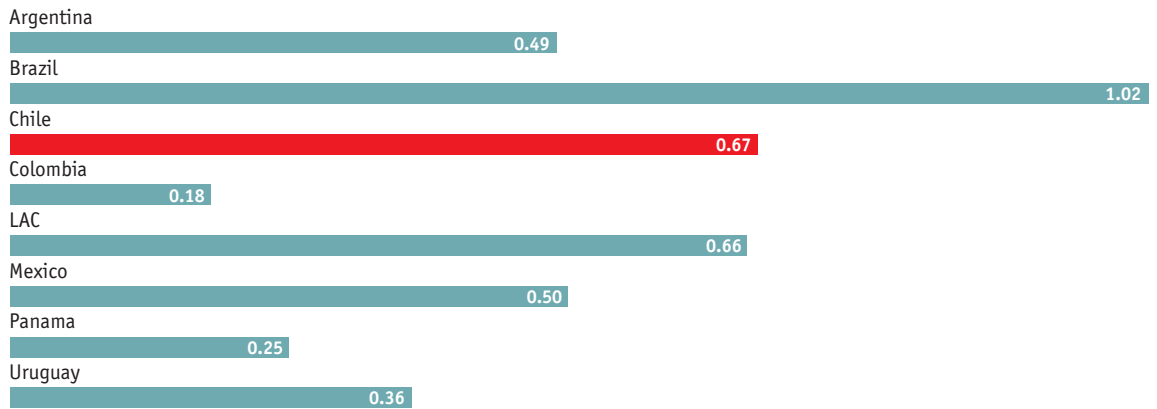
Chile is a small country that has opened its economy and actively pursued free-trade agreements (FTAs) to promote export-led growth. Exports accounted for over one-third (38%) of GDP at end-2009, according to the Economist Intelligence Unit. The country has an extensive network of free-trade agreements and bilateral-investment treaties. According to the government's General Directorate of International Economic Relations, as at end-2009, Chile had signed 52 investment treaties (including free-trade agreements, investment-protection treaties and various other trade accords) in total; of these, 47 were in force. These have broadened the country's network of trade partners and attracted new foreign investment. The agreements also serve to improve the legal framework for IP protection, and can thereby spur additional innovation investments in the private sector.

R&D spending in line with regional average

Chile's spending on research and development (R&D), typically a major source of IP, has historically been on-par with the average in the Latin America and Caribbean (LAC) region, but it is still low relative to more-advanced economies. R&D investment as a share of GDP averages 0.66% in the LAC region and a higher 2.26% in OECD countries. In Chile, this ratio was 0.66% in 2007, according to UNESCO. According to estimates of the Economist Intelligence Unit, that level of R&D spending represented nearly US\$1bn.

R&D spending as a share of GDP

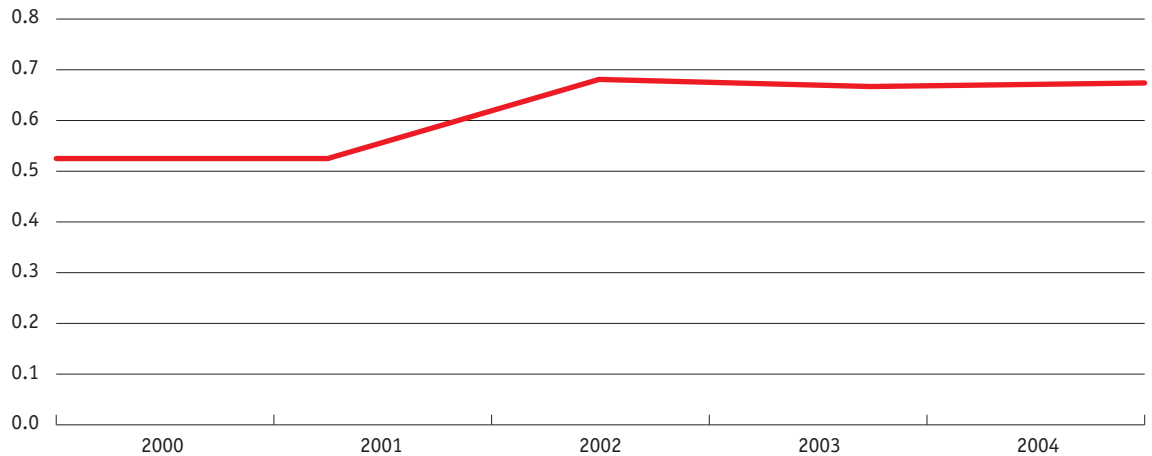
(%), 2005



Source: UNESCO.

R&D spending as a share of GDP

(%)



Source: UNESCO.

Chile's R&D investment has generally been driven by an economic structure that has consistently operated under a stable macroeconomic framework and reputable investment climate. Efforts to maintain the competitiveness of the country's exports have promoted R&D activity. In addition, Chile has placed emphasis on encouraging the development of human capital through quality education from primary through tertiary levels, which has served to foster R&D in higher-education institutions.

In Chile, business expenditure on R&D as a share of value-added in industry was just 0.4% in 2005, according to the latest information available from the OECD. In comparison, the OECD average was 2.4% in 2007. 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. A large part of R&D investments in Chile are financed by the public sector and higher-education institutions. This financing trend, in part, explains the focus of



Chilean R&D on research versus development.

There were approximately 832.5 researchers in R&D per one million people in Chile in 2004. This was up from 772.3 in 2003. The number of R&D researchers in Chile is above the regional average of 495 in 2005, according to the latest figures available from the World Bank, and is also above the average for the majority of non-OECD countries.

Technology-content of exports

Chile's export sector grew by an annual average of 6.68% in real terms in 2004–08, according to the central bank (Banco Central de Chile). Amid the slowdown in global trade activity and a fall in the prices of commodities from their peak in 2008, the value of exports declined by 5.6% in 2009. The total value of exports amounted to US\$50.9bn in 2009. The Economist Intelligence Unit forecasts export growth of 6.5% in 2010, led by mining exports. However, fruit, wine and cellulose exports—which account for around 13% of exports—will be strained, as these industries suffered severe damage in the February 2010 earthquake.

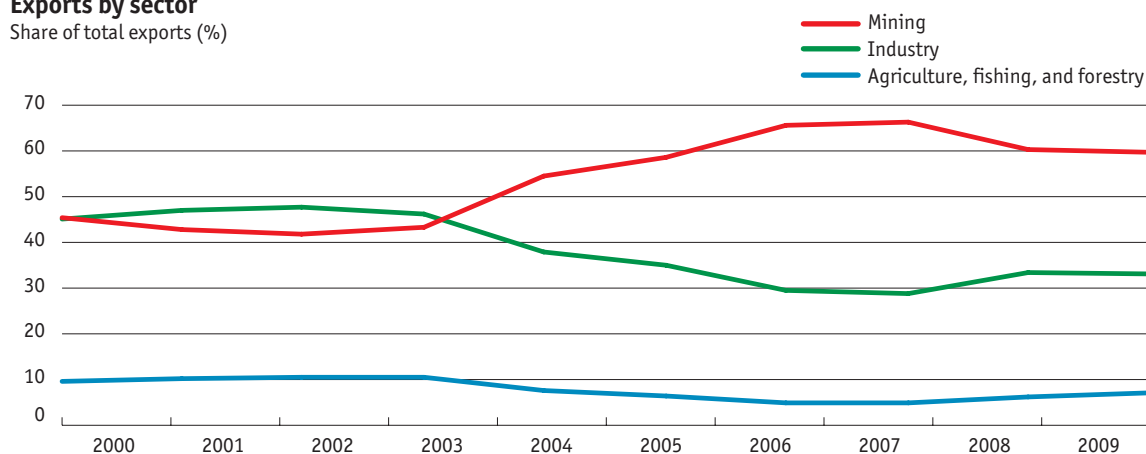
Chile's high-technology exports			
Indicator	2006	2007	2008
Exports of goods and services as a share of GDP (%)	45.77	47.25	44.79
Exports of goods and services, real annual growth (%)	5.09	7.57	3.11
High-technology exports as a share of total manufactured exports (%)	6.51	6.46	6.15
Value of high-technology exports (current US\$ m)	401.3	446.8	515.1
Value of high-technology exports as a share of LAC high-tech exports (%)	0.82	0.94	0.89

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

Chile's exports are led by commodities. Since 2004, Chile's exports have increasingly shifted towards mining and away from industry; indeed, by end-2009, mining accounted for 53.7% of total exports, up from 30.4% at end-2003, according to the central bank. Copper is Chile's principal mining export. Leading industrial exports include processed foods and beverages such as wine, salmon, cellulose and

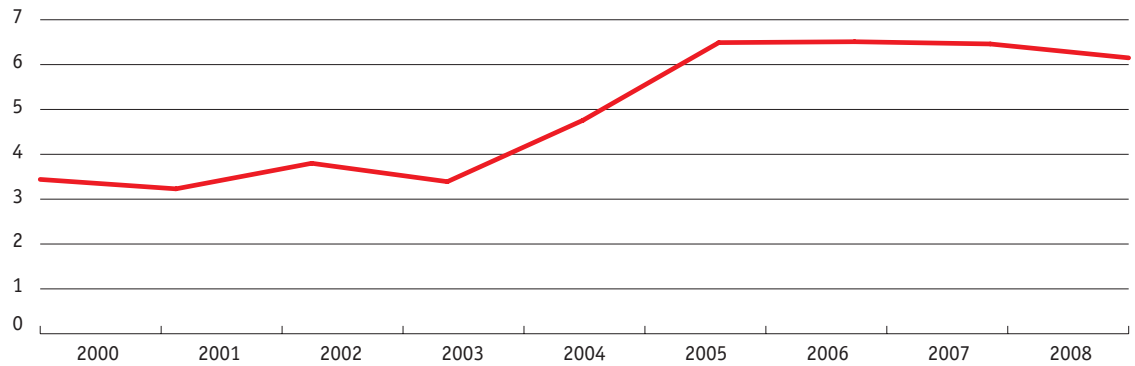
Exports by sector

Share of total exports (%)



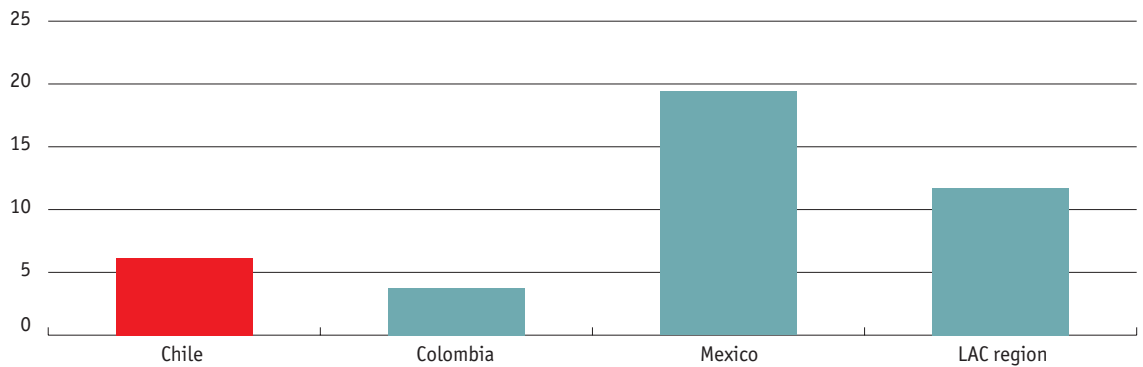
Source: Banco Central de Chile.

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.

manufactured metals. Fruits (particularly grapes), nuts and fish are also important agricultural export goods. According to the central bank, in 2008 exports went mainly to China (16.6% of total exports), the US (11.8%), Japan (10.9%) and South Korea (6.4%).

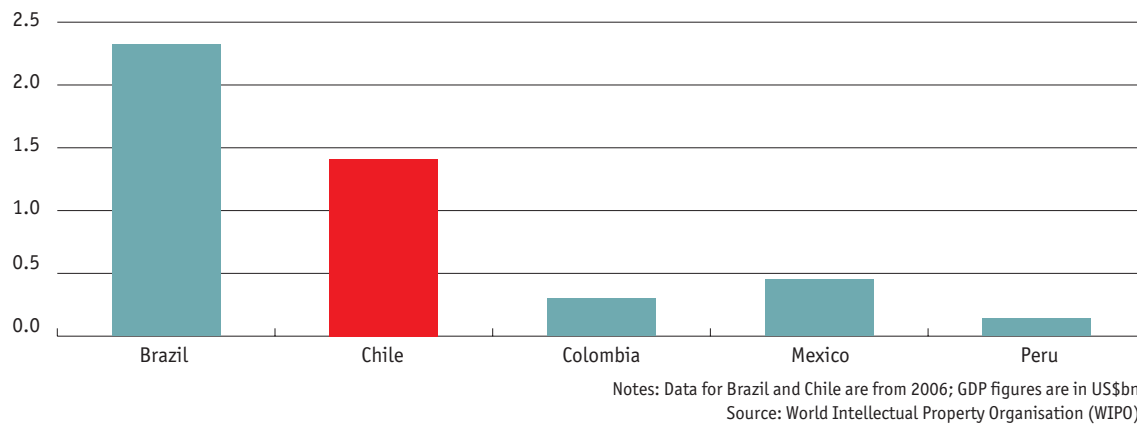
The technology content of manufactured exports has also been rising since 2004 and represented a ratio of about 6.15% in 2008. Still, the high-technology content of Chilean manufactured exports lags behind that of the regional average of 11.72%. By comparison, Mexico's manufactured exports have a higher technology content.



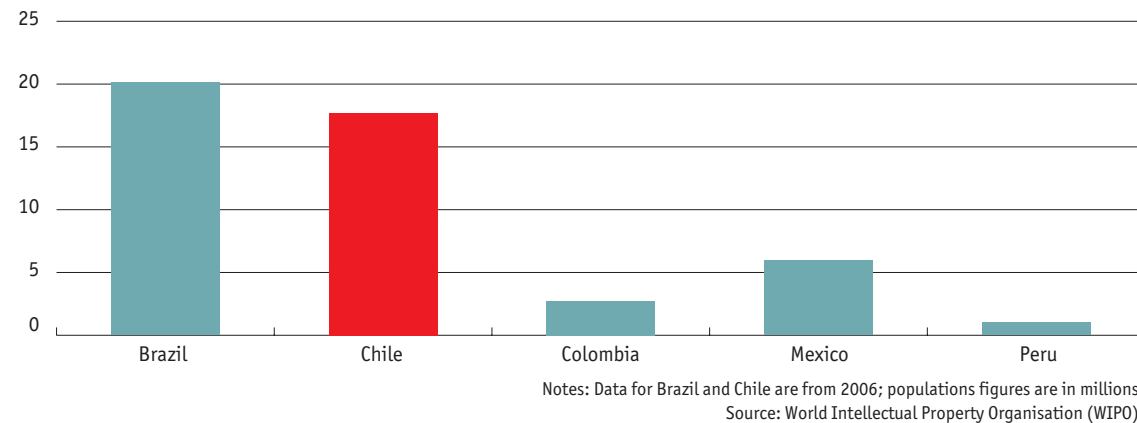
Patents

Nearly 4,000 patent applications, from residents and non-residents combined, were submitted in Chile in 2008, according to figures from the World Intellectual Property Organisation (WIPO). However, patents in Chile have a high concentration of foreign ownership, with most patent applications filed by—and granted to—companies or individuals based outside of Chile. Nearly 87% of patent filings in 2008 were submitted by foreigners.

Resident patent filings as a share of GDP (%)



Resident patent filings as a share population (%)



The intensity of patent filings submitted by residents, both in relation to the size of the economy and the population, is higher than in other Latin American countries. Resident patent filings as a share of GDP approximated 1.41% in Chile in 2007, behind Brazil's 2.32%, but exceeding 0.45% in Mexico, 0.30% in Colombia and 0.14% in Peru. Resident patent filings per one million people approximated 17.71% in Chile in 2007, trailing a share of 20.12% in Brazil, but still above 5.97% in Mexico, 2.75% in Colombia and 1.00% in Peru.

Patent filings in Chile	
Indicator	2007
Number of patent filings, total	3,215
Number of patent filings, residents	291
Number of patent filings, non-residents	2,924
Number of non-resident patent filings as a share of total patent filings (%)	90.9
Resident patent filings as a share of GDP in US\$ bn (%)	1.41
Number of patents granted, total	406
Number of patents granted, residents	58
Number of patents granted, non-residents	348
Number of non-resident patents granted as a share of total patents granted (%)	85.7

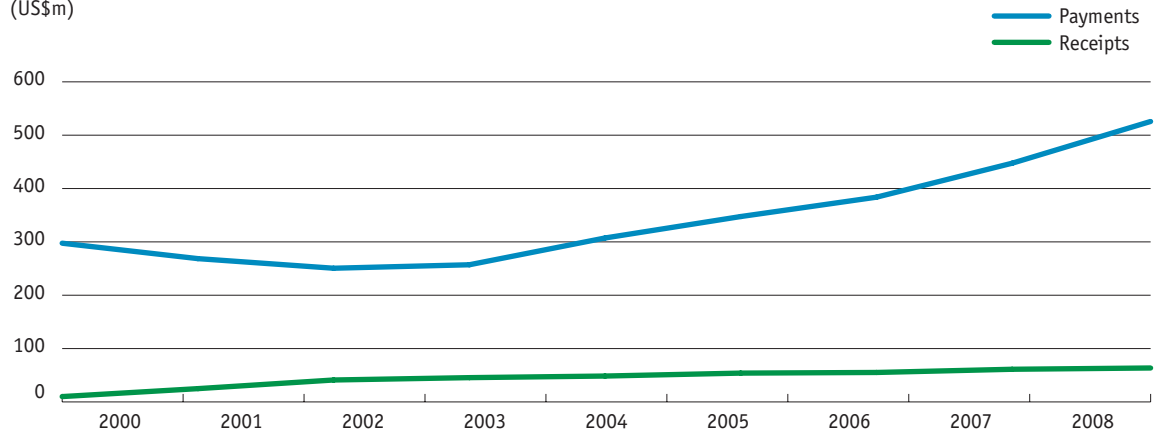
Source: World Intellectual Property Organisation (WIPO).

Licences

Licensing agreements are common, particularly for agreements in which Chilean companies obtain technology, knowledge or use of brand from companies in other countries. Chilean payments of royalties and licensing fees abroad totalled US\$525.7m in 2006, whereas receipts from abroad amounted to US\$63.6m, according to the World Bank. Agreements are common in industries that require deep knowledge of local consumers (including apparel, fast-food restaurants, hotels and many services).

Royalty and licensing fees

(US\$m)



Source: World Bank.



Overview of Chile's intellectual-property environment

Chile has a strong property-rights regime; however, the legal framework for intellectual-property rights (IPR) is less comprehensive, though it is gradually becoming stricter to meet requirements set forth in the country's numerous free-trade agreements (FTAs) and international conventions.

Chile 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).

In March 2009, Chile became the 140th country to sign the World Intellectual Property Organisation's Patent Co-operation Treaty and to join the International Patent Co-operation Union. After several years of delay, in October 2008, the legislature passed a law allowing the government to sign the PCT. Chile's trade agreements with the European Union and the United States required it to complete this process before the end of 2006, but strong lobbying by opposition groups delayed ratification.

Although Chile's national IP legislation has been gradually strengthened, enforcement remains lax—particularly with respect to piracy of copyrights and patent-protection. Music piracy has presented an increasingly large challenge to IP-rights enforcement. Also among key concerns in Chile's legal IP-rights regime is the deficient protection of pharmaceutical patents and test data.

Chile has one of Latin America's most liberal policies on licensing. The government authorises all types of licensing arrangements, including those between foreign subsidiaries and their parent companies. Most companies in the car-parts, chemical, electronics and metal-processing industries manufacture in part under foreign licences. The use of franchises has grown rapidly in Chile in recent years, particularly in the fast-food business.

Chile's soft IP regime had been called into question prior to the country's accession to the Organisation for Economic Co-operation and Development (OECD) in January 2010. One of the requirements for its membership was the strengthening of intellectual-property protection.

USTR Watch List

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

Nevertheless, the USTR cited recent improvements in IP-rights protection in Chile. These include the government's creation of a special police unit to monitor IP-related crimes. The Patent Co-operation Treaty also entered into effect in Chile in 2009, in accordance with the Chile–United States Free-Trade Agreement. The Chilean government initiated in 2008 a National Institute for Industrial Property to co-ordinate the supervision of IP rights. However, the country's commitments have not yet met some of the requirements of its multi-lateral and bilateral agreements, according to the USTR.

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, Chile ranked in 34th place overall, out of 125 countries. In terms of IPR specifically, Chile received a ranking of 49th place. On a regional level, Chile's IPR protection ranked fourth 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 Chile was 64% in 2009, down from 67% in 2008 and 66% in 2007. In comparison, the estimated average rate of software piracy in Latin America was 63% in 2009, down from 65% in 2008. Estimated financial losses from software piracy in Chile totalled US\$315m in 2009, up from US\$202m in 2008, and US\$187m in 2007.



Intellectual-property protection

Copyrights and industrial property, such as patents and trademarks, are legally recognised in Chile.

Industrial property, which includes patents, utility models, industrial designs and drawings, and trademarks, among others, are regulated by the Chilean Law of Industrial Property, Law 19,039 of January 25th 1991, as amended by Law 19,996 of March 11th 2005 and Law 20,160 of January 26th 2007. Chile is also a signatory of the Paris Convention for the Protection of Industrial Property (Stockholm Act) since 1991.

Copyrights are regulated in Chile by Law 17,336 (Copyright Act) of August 28th 1970, modified by Law 19,914 of November 19th 2003 and by Law 20,435 of May 4th 2010. This legislation protects rights over copyrighted materials, software and integrated circuits. Chile is also a signatory of the WTO's agreement on Trade-Related Aspects of Intellectual Property (TRIPs), and there are intellectual-property chapters in Chile's Association Agreement with the European Union (2003) and in its free-trade agreement with the United States (2004).

Law 20,435, which was enacted in May 2010, amended existing IP law—as set forth in Law 17,336 of 1970—to implement provision specified in the Chile-US FTA, which entered into force in November 2004. The 2010 amendments include new regulations concerning the civil and criminal enforcement of copyrights; exceptions and limitations to copyrights; the arbitration panel for royalties; and the limitation of liability of Internet service providers.

The government signed Law 20,160, which came into force in January 2007, extending the protection for patents and trademarks, including the possibility of extending the patent period of pharmaceutical products as a result of possible delays in the granting of sanitary permits for their commercialisation. However, this law fails to address the two main demands from international laboratories: giving proper protection to confidential test data and restricting the capacity of the Institute of Public Health (Instituto de Salud Pública—ISP) to grant sanitary permits to companies that reproduce—under different names—internationally copyrighted drugs without authorisation. The ISP routinely grants permits for such drugs to local laboratories, requiring them to pass physical and chemical tests confirming their pharmaceutical quality, but not demanding bioequivalence studies.

As in its previous version, Law 19,996 includes penalties for piracy. The range for the minimum fine for violations of industrial property rights was expanded from 100 to 400 UTM's under the previous law to 25 to 1,000 UTM's. (UTM stands for *unidad tributaria mensual*, an inflation-indexed unit of account,

with one UTM worth Ps36,679, or about US\$72). The maximum fine for first-time offenders increased from 500 UTMs to 1,000 UTMs, and pirated goods and the equipment used to produce them are subject to confiscation. For those caught a second time, the fine cannot be less than double the first fine, up to a maximum of 2,000 UTMs.

The Law of Industrial Property No. 19,039 extended the protection period for patents to 20 years, starting from when the patent is requested, from the previous 15 years, starting from the date of patent registration. The law created a specialist tribunal for cases involving industrial-property rights (Tribunal de Propiedad Industrial), which comprises the following: three specialist judges nominated by the Ministry of the Economy every two years; three alternates belonging to the State Defence Council (Consejo de Defensa del Estado); and three replacement judges nominated by the Santiago Court of Appeals. To speed up the examination of patent applications, 12 new examiners were contracted, adding to the previous nine.

The law includes benefits for small companies and individual inventors. Individuals and small firms are allowed to defer payment of registration fees until the registered invention begins to yield profits. In addition, they are eligible for loans from the state development agency (Corporación de Fomento—Corfo) to finance the expenses required to register patents both at home and abroad.

A request for a patent should be presented to the National Industrial Property Institute (Instituto Nacional de Propiedad Industrial—INAPI) within 180 days of the authorisation to market the product in the country of origin. Patents are considered public documents, and legal counsel must handle any challenges to patentability. Appeals go to the Industrial Property Tribunal (Tribunal de Propiedad Industrial), which is expected to reduce litigation time (which reached up to three years under the previous system). Nevertheless, applicants will still be able to appeal against the tribunal's rulings to the Supreme Court.

Trademark protection is available for new words and those including generic terms if the word combination is novel. Trademark registration is a simple process and does not require agents or lawyers. The applicant must file a form at the INAPI, which conducts the appropriate search after approving it for publication in the official gazette, *Diario Oficial*. To discourage piracy, the law requires that a lawyer conduct all actions to challenge or defend a trademark. Challenges are accepted within 30 days after publication of a mark in the *Diario Oficial* (at a cost of about US\$75). If there are no challenges, INAPI then accepts the application. Rejected applicants may appeal against the decision.

The trademark-registration process takes between 6–8 months. Registration costs 3 UTMs for each applicable section of the industrial classification system. The trademark office receives some 25,000 trademark applications each year and accepts about 95% of them.

The Industrial Property Law also includes an industrial-design category. The fee for registering industrial designs is similar to that for utility models. A special expert-assessment fee applies for industrial designs and utility models.



Registering property

A patent application must be made in Spanish, with a power of attorney filed with the National Industrial Property Institute (Instituto Nacional de Propiedad Industrial—INAPI). Applications and payments can be made online. Applicants who file online can check the status of their applications and receive e-mails on pending procedures. About 3,000 applications are filed each year. In 2010, INAPI aims to cut processing times for industrial patents from 36 months to 22 months.

Following a preliminary examination and the preparation of an examiner's report, which can take up to 60 working days, the invention's title and a short description are published in the *Diario Oficial*. Opposition is legal for up to 45 working days after publication. If there is opposition, the applicant has up to 45 working days to answer in writing the objections raised. If the latter are pertinent and substantial, INAPI examines them in detail and resolves the matter in a process that can take up to 45 working days. This resolution may be appealed within the following 15 working days before a specialist tribunal (Tribunal de Propiedad Industrial—TPI). The TPI's verdict may be appealed before the Supreme Court.

Trademark applications are made to INAPI where they are checked for exclusivity. INAPI processes about 30,000 trademark registrations each year. Publication in the *Diario Oficial* is required. If there are no objections, the trademark is accepted provided INAPI does not reject it on other grounds. The entire process takes up to four months.

Copyrights are registered with the Intellectual Property Registry (Registro de Propiedad Intelectual). About 20 applications for authors' rights are received each day.

Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsors of this report can accept any responsibility or liability for reliance by any person on this white paper or any of the information, opinions or conclusions set out in the white paper.

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