TRADEMARKS IN LATIN AMERICA:

Economic Impact in 10 Latin America and Caribbean Countries

Argentina | Brazil | Chile | Colombia | Costa Rica | Dominican Republic
Guatemala | Mexico | Panama | Peru

Executive Summary
October 2019

ASIPI
Asociación Interamericana de la Propiedad Intelectual
Inter-American Association of Intellectual Property
Associação Interamericana da Propriedade Intelectual

INTA International Trademark Association

Trademarks in Latin America:

Economic Impact in 10 Latin America and Caribbean Countries

Argentina | Brazil | Chile | Colombia | Costa Rica | Dominican Republic | Guatemala | Mexico | Panama | Peru

Executive Summary

October 2019

ASIPI
Asociación Interamericana de la Propiedad Intelectual
Inter-American Association of Intellectual Property
Associação Interamericana da Propriedade Intelectual

INTA International Trademark Association

Executive Summary

According to the World Intellectual Property Organization (WIPO), "a trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises." Annually, WIPO reports on the trademark filings and registrations of 163 Intellectual Property Offices.

These WIPO reports demonstrate that international trends in trademark filings and registrations have been increasing annually since the mid-1970s. Starting in the 1980s, developing countries, including those in Latin America and the Caribbean (LAC) countries, joined the growing trend.

Trademarks are an effective mechanism to identify the origin and quality of goods and services, providing useful information to consumers and society as a whole. On the other hand, trademarks have become accessible business instruments, particularly for small and medium enterprises (SMEs) from developing countries. As compared to other intellectual property assets (i.e., patents), trademarks exhibit low costs of creation and registration. Moreover, several studies have analyzed the positive impact of the registration and use of trademarks by SMEs to access international markets. Empirical evidence shows that the main advantages of using trademarks by SMEs in developing countries derive from the fact that this use is not limited to high tech or knowledge-intensive sectors due to the cheaper registration costs.

Middle-income economies (many in the Latin America and Caribbean region) participate in the international system[1] of trademark legal protection and show intensive use of trademarks. Moreover, having effective systems for registering and enforcing trademarks has a positive potential contribution to the economic growth of developing countries in a globalized world because the identification of a product or service through trademarks enables both the promotion of exports and the participation in international value chains.

More recently, two relevant case-studies on trademarks have been developed for the United States of America and the European Union[2]. They illustrate the positive impact of trademark-intensive economic sectors in those economies. Both studies show that some industries within each economy are more trademark-intensive compared to others. Many of those industries are more intensive in the use of trademarks because they register more trademarks per employee or unit of sales as compared with the rest of the economy. According to the results of the analysis for these advanced economies, their trademark-intensive sectors make a vital contribution to the economic activity, employment, and external trade in their countries. They also pay a premium wage, i.e., they pay salaries that are systematically higher than those of the rest of the economy.

Taking into account the fact that trademarks have proved useful in developing countries and that the results for the United States and European Union show a positive contribution of trademark-intensive sectors to their economies, the natural question that followed from these two studies was whether trademark-intensive sectors also convey a positive contribution to the economies of developing countries. To answer this question, this study analyzed the case of 10 Latin-America and Caribbean countries: Argentina, Brazil, Colombia, Costa Rica, Chile, Dominican Republic, Guatemala, Mexico, Panama, and Peru.

In 2016, ASIPI and INTA successfully collaborated to conduct a study on the economic impact of trademark-intensive sectors in Chile, Colombia, Peru, Panama, and Mexico. This was the first study of its kind within the region, and the results showed[3] the importance of trademark-intensive sectors on the economic activity, employment, and international trade of these countries. It was clear to both associations that more could be accomplished within the region by studying similar data from other countries. Thus, in 2018, ASIPI and INTA expanded upon the first impact study to update the findings for the five countries analyzed in the original study and to gather findings for five additional countries, namely, Argentina, Brazil, Costa Rica, Guatemala, and the Dominican Republic to provide more insights more insights to policy maker, legislators and consumers at large on the value of trademarks and brands.

The main objective of the analysis is to measure the impact of trademark-intensive sectors, both foreign and nationally-owned, on the selected economies.

The main questions to be answered by this study are the following:

- What is the impact of trademark-intensive sectors on the economic activity of each selected country?
- What is the impact on total employment and wages in each of the selected countries?
- What is the importance of these sectors in the international trade (exports and imports) in each of the selected countries?

1 All the countries studied are members of the Paris Convention for the Protection of Industrial Property
2 See Economics and Statistics Administration and US Patent and Trademark Office, "Intellectual Property and the US Economy: Industries in Focus," March 2012 and Sept. 2016; European Patent Office and the Office for Harmonization in the Internal Market, "Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union," Sept. 2013; and European Patent Office and European Union Intellectual Property Office, "Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union," Industry-Level Analysis Report, October 2016, Second Edition.
3 See Inter-American Association of Intellectual Property and International Trademark Association's study on, "Trademarks in Latin America: A study of their economic impact in five countries in the region (Chile, Colombia, Mexico, Panama, and Peru)," September 2017.

Within the research, an economic sector is defined as trademark-intensive according to two alternative definitions:

- The number of annual registered trademarks per employee in the sector is higher than the average ratio corresponding to the whole economy.
- The number of annual registered trademarks per unit of sales in the sector is higher than the average ratio corresponding to the whole economy.

The researchers reviewed the available specialized literature, collected the relevant data, and elaborated on the corresponding estimates of the impact of the trademark-intensive sectors for each selected country.

For each country, the analysis shows the economic impact of trademark-intensive sectors on:

- The share of trademark-intensive sectors in employment and economic activity [Gross Domestic Product (GDP)].
- The share of trademark-intensive sectors in external trade (import and export flows).
- The wage average of trademark-intensive sectors as compared with the non trademark-intensive sectors, also known as a wage premium.

The Methodology of the Study

The methodology of the study consisted of three phases.

First, trademark and economic data (employment, sales, value-added, exports, and imports) were collected and rationalized under a common classification.

Trademark information is organized under the International Classification of Goods and Services also known as the Nice Classification. This Classification system was established by the Nice Agreement, and it is a system of classifying goods and services into 45 Classes for the purpose of registering trademarks. The classification system is specified by WIPO[4]. Simultaneously, economic information was classified using the International Standard Industrial Classification (ISIC) or its equivalent in the selected Latin America and Caribbean countries. To allow for a valid comparison between the two datasets, the products, and services contained in each Nice Class were linked to the corresponding economic activities in each country using a conversion table from Nice Classification into the International Standard Industrial Classification (ISIC). As a result, a dataset by country and Nice Classes that includes the average trademarks registered between 2013 and 2017 and the most recently available associated economic data was developed. Some of the primary sources for economic data were the National Census or National Accounts Bureaus for each of the countries studied. The WIPO database and National Intellectual Property Offices information were used for the most recent annual trademark registration data. The data on international trade was sourced from the International Trade Center (INTRACEN-Trade Map).

Second, trademark-intensive sectors were identified by the selected country.

Using the datasets mentioned above for of each country, two indicators for the Nice Classes were developed:

- Annual registered trademarks per employee.
- Annual registered trademarks per unit of sales (Gross Production Value).

The group of economic activities/sectors associated with each Nice Class is considered to be trademark-intensive if at least one of the above mentioned indicators is higher than the average of the corresponding indicator for all Nice Classes. Thus, each Nice Class is classified into one of the two categories: trademark-intensive or trademark non-intensive.

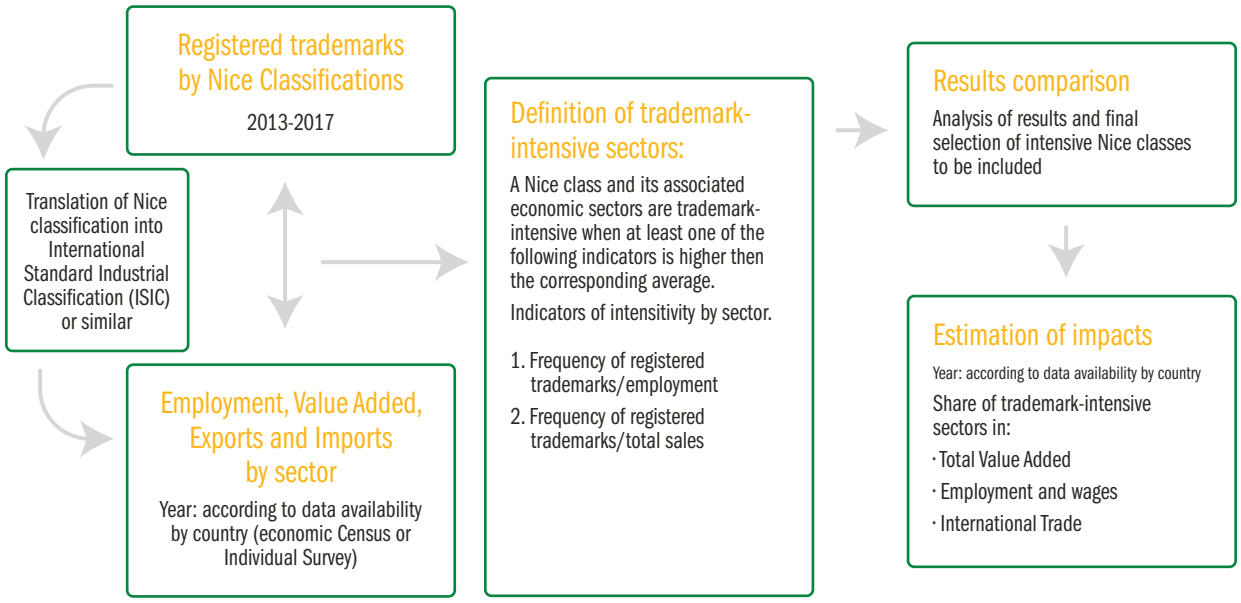
Third, the importance of the trademark-intensive sectors was estimated.

In each country, the total employment, value-added, export, and import figures were broken down into trademark-intensive, and non-intensive classes and the relative importance of trademark-intensive classes was calculated as a percentage of the total economy. In the case of wages, the average "wage premium," i.e., the percentage by which the average wage for trademark-intensive classes exceeds the corresponding wage for non-intensive classes was calculated.

Figure 1 schematically represents the methodology described above.

4 The Nice Classification is updated every five years and its latest 11th version of the system groups products into 45 classes (1 to 34 cover goods, and 35 to 45 cover services), and allows users seeking to register a trademark for a good or service to choose from these classes as appropriate. Since the system is recognized in numerous countries, this makes applying for trademarks internationally a more streamlined process.

Figure 1



Economic background of the selected countries

Considering the group of selected Latin America and Caribbean countries, Brazil is the largest economy by way of GDP, followed by Mexico, Argentina, Colombia, Chile, and Peru. Countries of Central America and the Caribbean are smaller in terms of GDP. The Dominican Republic and Panama were the most dynamic economies of this group over 2014–2017. Chile and Argentina exhibited the lowest growth rate, while Brazil underwent a significant economic recession in 2014–17.

In 2014–17, Peru and Panama showed increasing exports along with very dynamic export growth of the selected Central American countries. However, the rest of the selected countries suffered a reduction of their exports. The Dominican Republic showed exceptional export growth during this period. Regarding import performance, six countries showed a contraction while Argentina, Guatemala, Mexico, and the Dominican Republic increased imports.

Foreign direct investment (otherwise known as FDI or capital inflows) in Brazil and Mexico were significant in 2017, representing 41.4 percent and 19.6 percent of the total inflows in Latin America and the Caribbean, respectively. The rest of the selected countries show a lower level of participation in FDI (from 0.8 percent in the case of Guatemala to 9.6 percent in the case of Colombia).

Considering the size of the selected countries in terms of their population, Brazil is the largest country followed by Mexico, Colombia, Argentina, Peru, Chile, Guatemala, and the Dominican Republic. Panama and Costa Rica show a smaller population on average as compared to the previous group.

Chile has the highest per capita income of the 10 countries, followed by Panama, Argentina, Mexico, Costa Rica, the Dominican Republic, and Brazil. The countries with the lowest per capita income included in the selected group are Colombia, Peru, and Guatemala.

The leading economic indicators are shown in Table 1, on the following page.

Table 1

Economic Indicators of Latin America and Caribbean Selected Countries: 2014–2018

	Argentina	Brazil	Chile	Colombia	Costa Rica	Dominican Republic	Guatemala	Mexico	Panama	Peru	Latin America & the Caribbean
Population (in millions) 1/	44.6	209.2	18.6	49.8	5.0	10.3	17.3	124.7	4.2	32..2	623.45
Share in Total Population of LAC (in %)	7.1	33.6	3.0	8.0	0.8	1.6	2.8	20.0	0.7	5.2	100.0
GDP (in USD Billions) 2/	637.6	2,055.1	277.0	314.5	58.3	76.1	75.6	1,151.0	61.8	214.2	5,514.6
Share in Total GDP of LAC (in %)	11.6	37.3	5.0	5.7	1.1	1.4	1.4	20.9	1.1	3.9	100.0
National Income per Capita (in USD PPP) 3/	20,270	15,160	23,670	14,170	16,100	15,290	8,000	17,840	21,890	12,890	15,312
Growth of GDP in real terms (in %) 4/	1.2	-2.0	1.7	2.2	3.7	6.1	3.3	2.7	5.4	3.3	2.5
Total Employment (In millions of workers - year 2018) 5/	17.6	86.2	7.8	22.4	2.0	4.4	6.1	51.7	1.8	14.6	264.1
Exports of Goods and Services (in % of GDP) 6/	12.4	11.9	29.8	14.9	32.8	21.4	20.3	35.3	42.6	22.6	20.7
Imports of Goods and Services (in % of GDP) 6/	13.8	12.3	30.3	20.2	34.7	28.9	31.6	38.0	48.2	23.6	22.9
Exports Growth (in %) 7/	-3.9	-1.6	-2.5	-9.3	1.6	8.0	0.6	1.4	0.5	5.0	-0.9
Imports Growth (in %) 7/	2.8	-11.7	-3.6	-9.4	-1.7	1.6	0.5	1.7	-3.2	-1.0	-3.3
FDI (in USD millions) 8/	1,1857	62,713	6,730	14,518	3,007	3,570	1,147	29,695	5,319	6,769	151,337
Share in Total FDI of LAC (in %) 8/	7.8	41.4	4.4	9.6	2.0	2.4	0.8	19.6	3.5	4.5	100.0

1/ 2/ Corresponds to 2018. World Economic Outlook Database. International Monetary Fund. https://www.imf.org/external/pubs/ft/weo/2018/02/weodata/index.aspx
3/ International prices. Corresponds to 2017. World Development Indicators Database. World Bank. http://datatopics.worldbank.org/world-development-indicators/
4/ Average rate 2014 - 2017. Own based on World Development Indicators Database. World Bank. http://datatopics.worldbank.org/world-development-indicators/. Corresponds a 2017.
5/ Includes self-employed workers. Own based on ILOStat http://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page3.jspx?MBI_ID=32
6/ Own based on World Trade Organization (https://www.wto.org/english/res_e/statis_e/statis_e.htm) y WDI World Bank. Corresponds to the average 2014-2017.
7/ Goods & Services. Annual rate. Own based on World Trade Organization. Corresponds to average rate 2014-2017.
8/ Foreign Direct Investment. inflows. Corresponds to 2017. World Investment Report 2018. UNCTAD. https://unctad.org/en/pages/publicationWebflyer.aspx?publicationid=2130

Trademark Activity in Latin America and Caribbean

Between 2007 and 2017, trademark applications grew overall by 3.3 percent per year in Latin America and the Caribbean. This growth is lower than the average trademark registrations worldwide, which is 8.3 percent per year. There is also an increase in the incidence of the trademarks requested by residents from 62 percent of the total to almost 70 percent, in contrast to those registered by non-residents. In 2017, the trademark applications of the Latin America and Caribbean region represented 5.8 percent of the world total, compared to 66 percent in the Asian region. Asia's high number of trademark applications is closely associated with the increasing business activity there.

The picture is similar in terms of the registrations, although the Latin America and Caribbean growth between 2007 and 2017 is even lower, 1.7 percent per year, compared with 6.6 percent worldwide.

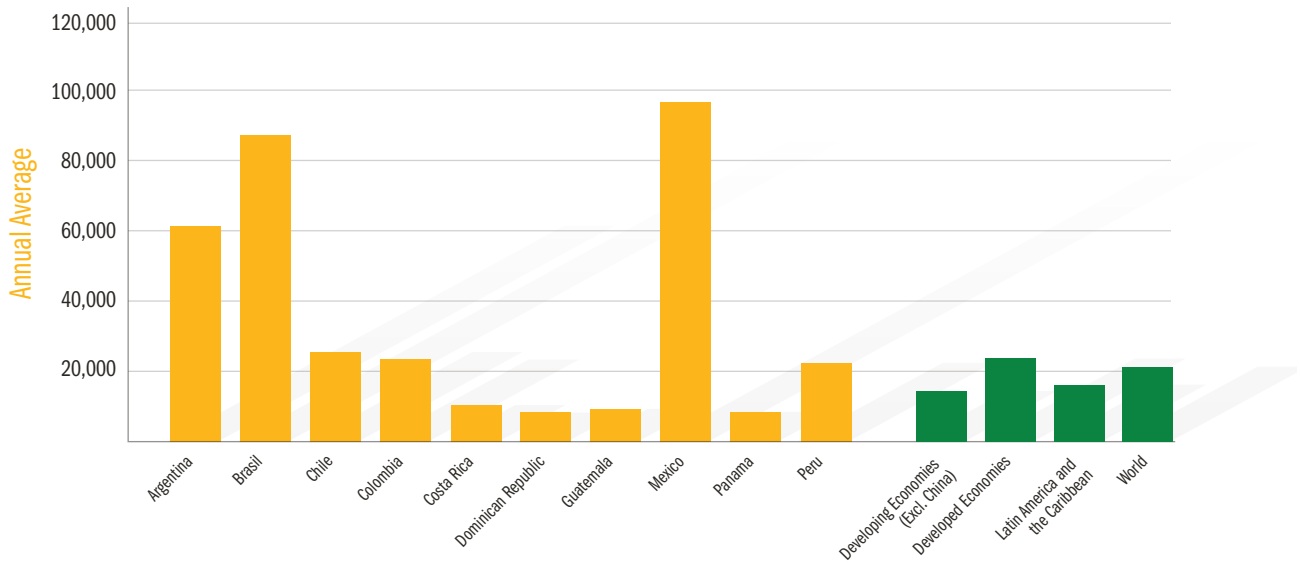
Mexico and Brazil are both characterized by high trademark activity, and their Intellectual Property Offices are among the top 20 with the highest application and registration activity in the world. When analyzing the intensity of trademarks in relation to the GDP (measured as the number of trademarks by unit of GDP), four of the selected countries: Chile, Brazil, Mexico, and Colombia are among the top 20 in the world in applications by residents per unit of product. When the intensity is calculated per inhabitant, the Latin American countries that are among the top 20 in the world are Argentina, Mexico, Brazil, and Ecuador (WIPO data for 2017).

The ranking of trademark applications for 2017 places the selected Latin America and Caribbean countries in the following positions: Brazil, 13; Mexico, 18; Argentina, 20; Chile, 30; Colombia, 36; Peru, 42; Costa Rica, 58; the Dominican Republic, 60; Panama, 61 and Guatemala, 64; over a total of 129 countries (WIPO, 2017). That said, all the selected countries are in the top half of the international ranking, attesting to an essential activity in the development and use of trademarks compared to other countries in the world.

Figure 2 completes the information indicated above on the relative importance of Latin America and Caribbean countries in trademark applications, showing the recent situation in terms of trademark registrations. As was the case with trademark applications, in the case of registrations, the countries of Latin America and Caribbean have an average slightly below the world average and below the developed countries. In the region, the disparities between countries are significant, as shown in the selection presented in this study.

Figure 2

Registered Trademarks by Country/Region (Annual Average 2013-2017)



Source: WIPO database and National Intellectual Property Offices of selected countries

Results of the study

The first step of our analysis was the identification of the trademark-intensive Classes for each country using the two following indicators: trademarks per employee and trademarks per unit of sales.

The results show that:

- Nice Classes (and their corresponding sectors) selected as trademark-intensive exhibit a are similar among all 10 countries.
- The selected Classes also partially coincide with Nice Classes identified by WIPO as being more frequent in registration.

Table 2 shows the number of selected trademark-intensive Classes of goods and services by country.

Table 2

Number of Nice Classes Identified as Trademark-Intensive by Selected Country

Number of Nice Classes identified as trademark-intensive	Goods	Services	Total
Argentina	12	5	17
Brazil	13	5	18
Chile	11	6	17
Colombia	15	4	19
Costa Rica	16	5	21
Dominican Republic	10	4	14
Guatemala	11	6	13
Mexico	13	6	19
Panama	10	5	15
Peru	11	4	15

Table 3, below, shows the detail of selected Nice Classes by country. The coincidence in Nice Classes between countries is explained by the fact that the degree to which a sector is trademark-intensive is an intrinsic characteristic of that industry, regardless of where it is located (EPO-OHIM, 2013). This fact also explains the coincidence between the selected classes in the Latin America and Caribbean countries and the Nice Classes that are the most frequent in world trademark registration (See the highlighted Classes in Table 4).

Table 3

Nice Classes Identified as Trademark-Intensive by Selected Country and Their Coincidence with Nice Classes Reported as More Frequent in Registration by WIPO

Selected Nice Classes according to identification of trademark intensity by sector	Denomination	Trademark-intensive classes by selected country									
		Argentina	Brasil	Chile	Colombia	Costa Rica	Dominican Republic	Guatemala	Mexico	Panama	Peru
Goods											
1	Chemical Products		x			x		x	x	x	x
2	Paints and anticorrosives	x	x	x							
3	Cosmetics and Cleaning Products	x	x	x	x	x	x	x	x	x	x
4	Industrial oils and fuels		x								
5	Pharmaceutical products	x	x	x	x	x	x	x	x	x	x
7	Machinery				x		x				
8	Hand tools	x			x		x		x		x
9	Scientific, digital equipment and software	x	x		x	x	x	x		x	x
10	Surgical Equipment	x	x		x	x	x		x	x	x
11	Household appliances					x		x			
12	Vehicles				x	x	x				
13	Firearms and fireworks				x						x
14	Precious metals and jewellery	x	x	x		x	x		x	x	x
15	Musical instruments				x						
16	Stationery		x	x		x	x	x	x		x
18	Leather and its substitutes	x	x	x	x	x			x	x	
19	Non-metallic Construction Material				x	x					
20	Furniture		x			x		x	x		
24	Textiles	x		x							
25	Clothing and footwear	x	x	x	x	x	x	x	x	x	
26	Haberdashery and decoration articles								x		
27	Carpets	x							x	x	x
28	Toys, games and sporting goods	x	x	x	x	x			x	x	x
30	Coffee, tea, cocoa and cereal preparations			x		x		x			
32	Beer and soft beverage					x		x			
33	Alcoholic beverage			x	x			x			
34	Tobacco and its products				x						
Services											
35	Advertising, commercial and business management services	x	x	x		x	x	x	x	x	x
36	Financial, insurance and real estate services					x	x				x
38	Telecommunications	x		x	x	x			x	x	
39	Transportation and Storage						x				
40	Treatment of materials	x	x	x	x				x	x	x
41	Educational, entertainment, sports and cultural services	x	x	x	x	x			x	x	
42	Scientific and technological services	x	x	x	x	x	x		x	x	x
43	Restaurants and hotels		x	x							
44	Medical, veterinary and agricultural services							x	x		
Total Number of Trademark-Intensive Sectors		17	18	17	19	21	14	13	19	15	15

Note: Highlighted Classes correspond to the Nice Classes identified by WIPO as more frequent in registration (WIPO, 2015). Each economic sector in the economy was associated with the corresponding Nice Class. Classes with indicators (trademarks/employment and trademarks/sales) higher than the average of the economy were considered trademark-intensive Classes.

The second step consisted of estimating the importance of trademark-intensive sectors in each selected economy.

First, the shares of the trademark-intensive Classes in the total employment and the GDP of these economies were considered. The results show that trademark-intensive sectors have an average participation in total employment of 18 percent, taking into account the shares of the countries under analysis. This average varies between 3 percent and 36 percent of total employment, depending on the country considered. The participation in the Gross Domestic Product is 22 percent on average in the countries analyzed, with a range of 10 percent to 42 percent.

These percentages are equivalent to 35 million jobs and US $1487 of added value per person/per year for all the selected countries (see Table 4).

Table 4

Share of Trademark-Intensive Classes in Total Employment and Gross Domestic Product

Employment and GDP Contribution	Share of Trademark-intensive Sectors in Total Employment (in %)	Share of Trademark-intensive Sectors in GDP (in %)
Argentina	18	12
Brasil	15	14
Chile	28	22
Colombia	13	20
Costa Rica	36	42
Dominican Republic	25	32
Guatemala	3	34
Mexico	20	15
Panama	13	16
Peru	8	10

The contribution of trademark-intensive sectors to international trade is 31 percent for exports and 34 percent for imports (average of the shares of the countries under analysis) with highly varying participation depending on the country.

For the set of the 10 countries studied, for each US $100 exported, US $17.8 corresponds to trademark-intensive sectors. Similarly, per each US $100 imported, US $28.7 corresponds to trademark-intensive sectors.

In six of the 10 countries studied, particularly those in South America, the incidence of trademark-intensive sectors on exports is lower than that of imports due to the difference in the trade tendencies. These countries export, in a high proportion, goods derived from natural resources that are sold in bulk (oil, mining, and agricultural products) and they import manufactured goods that use trademarks as an identification more frequently. In the countries of Central America and the Caribbean, with more significant international trade investment and very active free trade zones, the incidence of trademark-intensive activities is significantly higher in international trade (see Table 5).

Table 5

Share of Trademark-Intensive Classes in International Trade of Each Selected Country

Contribution to International Trade	Share of trademark-intensive sector Exports in Total Exports (in %)	Share of trademark-intensive sector Imports in Total Imports (in %)
Argentina	11	23
Brasil	23	50
Chile	12	17
Colombia	10	50
Costa Rica	49	50
Dominican Republic	55	37
Guatemala	43	30
Mexico	13	17
Panama	71	45
Peru	26	23

Note: All figures include Free Trade Zones transactions

To complete the comparison among the selected countries, relative wages between trademark-intensive and non-intensive industries were analyzed. On average, trademark-intensive sectors pay higher wages than other sectors. The wage premium between intensive and non-intensive sectors is positive and is 19 percent on average for the group of countries under study, varying between 5 percent and 57 percent.

Table 6

Wage Premium in Trademark-intensive Sectors of Latin America Selected Countries

Country	Wage Premium (AverageWage in trademark-intensive sectors / Average Wage in non-trademark-intensive sectors - in %)
Argentina	8
Brazil	18.9
Chile	20.9
Colombia	14.2
Costa Rica	57.1
Doominican Republic	9.5
Guatemala	9.3
Mexico	4.7
Panama	20.4
Peru	25.1

A final comparison between the results for the selected Latin America and Caribbean countries and the results available for the United States and the European Union is developed in Table 7.

Table 7

Trademark- Intensive Sectors: Economic Contributions by Group of Countries

Trademark-intensive industries as a share of:	Group of countries		
	Latin-America and the Caribbean (in %)	United States (in %)	European Union (in %)
Total Value Added	22	34.9	35.9
Employment	18	15.5	21.2
International Trade: Exports	31	52*	73.9
International Trade: Imports	34	59.3*	71.4
Wage Premium	19	38	48

Note: *Corresponds to all IP intensive industries (trademarks, patents and copyrights)

The average share of trademark-intensive sectors of Latin America and Caribbean countries in Total Value Added is generally lower than the corresponding ones in the United States and the European Union in their Total Value Added (around 35% for both cases). Several factors contribute to explaining the difference. First, commodities are relatively important for Latin America and Caribbean countries and these products are not intensive in trademark use (they are homogeneous products). Second, Latin America and Caribbean economies have a significant share of services in their GDP, and services are less frequent users of trademarks than manufacturing industries. The shares in Employment are more similar between all the compared cases (18 percent for Latin America and the Caribbean, 15.5 percent for the United States, and 21.2 percent for the European Union).

Regarding wage premiums and they are lower in the selected Latin America and Caribbean cases than in the European Union (48 percent) and the United States (38 percent) except for Costa Rica which is even higher than Europe and United States (57 percent). One possible explanation for a lower premium is that informal industries are under-represented or omitted in the data of Latin America and Caribbean countries (in 2018, 53 percent of workers in Latin America and the Caribbean are part of informal economies according to the International Labor Office information). Those sectors receive the lowest salaries in those economies and are non-intensive in trademarks.

International trade comparison shows that the incidence of the trademark-intensive sectors is lower for exports and imports of Latin America and Caribbean countries. This is mostly due to the differences between the commercial patterns of the Latin America and Caribbean countries and the relatively more developed countries. Latin America and Caribbean countries export, in a high proportion, goods derived from natural resources that are sold in bulk (oil, mining and agricultural products) which are not trademark-intensive.

Finally, the results of this study were compared with those of the initial 2016 study for the five countries in both studies.

Table 8 shows the comparison for the shares on employment and value added and the level of the wage premium. In all three cases, the results are similar between the 2016 and updated results. This is probably because the selected Nice classes for each country have not varied between the two periods focused on by the studies: 2010-14 and 2013-17, respectively.

Table 8

Summary of Result for Countries Studied in 2016 and 2019: Employment, Total Value Added and Wage Premium

Country	Share of trademark-intensive sectors in Employment (in%)		Share of trademark-intensive sectors in Total Value Added (in%)		Wage Premium (in%)	
	2016	2019	2016	2019	2016	2019
Chile	26	28	21	22	20	21
Colombia	13	13	17	20	14	14
Mexico	20	20	15	15	5	5
Panama	13	13	16	16	20	20
Peru	8	8	10	10	24	25

In the case of foreign trade (Table 9), the comparison between the two studies shows some changes. These changes correspond to variations in the composition of trade flows between the first and the second studies for all countries, and especially for those countries with significant activity in their free trade zones, where changes of trade composition are more frequent due to fluctuations in international demand and investment projects.

In the case of Panama, the current study omits the separation between the free trade zone and the rest of its trade as compared to what has been done in the previous study. Instead, trade flows of free trade zones are integrated to total country trade for all countries. Finally, a methodological improvement was introduced in the new study. While in the initial study the exports of some commodities (minerals) exported were not computed, in this study all exports were assigned within the Nice classes. The most visible effect is to increase the incidence of exports in trade. The case of Peru is the one that shows the most significant differences due to this change.

Table 9

Summary of Result for Countries Studied in 2016 and 2019: International Trade

Country	International Trade			
	Share of trademark-intensive sectors in Exports (in %)		Share of trademark-intensive sectors in Imports (in %)	
	2016	2019	2016	2019
Chile	9	12	13	17
Colombia	9	10	51	50
Mexico	14	13	19	17
Panama	20/75*	71	21/78*	45
Peru	5	26	21	23

Conclusion

In the 10 countries studies, the economic sectors that register and use trademarks intensively, on average, contribute 18 percent of employment, 22 percent of the GDP, 31 percent of exports, and 34 percent of imports. In addition, the trademark-intensive sectors pay higher wages than the rest of the economy, which denotes their higher productivity.

An emerging characteristic of the analysis has been that the new developing sectors of economic activity in each country, which exhibit greater dynamism of growth or are associated with international investment or international trade, show higher intensity in the use of trademarks in the selected countries. In contrast, well-established economic activity sectors with significant participation in the economy of these countries were often not selected as trademark-intensive sectors. This was due to their greater economic size in terms of employment and/or sales relative to the registration of new trademarks. This evidence suggests the existence of potential differences in the use of brands as business instruments by sector at the different stages of development of an economy.

Selected references

- Economics and Statistics Administration and US Patent and Trademark Office, "Intellectual Property and the US Economy: Industries in Focus," March 2012.
- Economics and Statistics Administration and US Patent and Trademark Office, "Intellectual Property and the US Economy: Industries in Focus," Sept. 2016.
- European Patent Office and the Office for Harmonization in the Internal Market, "Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union," Sept. 2013.
- European Patent Office and European Union Intellectual Property Office, "Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union." Industry-Level Analysis Report, October 2016 Second Edition.
- WIPO, World Intellectual Property Indicators, 2015. http://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2015-part2.pdf