

## **Faculty of Legal Sciences**

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Analysis of the trade balance of Colombia and Peru since their entry into the Pacific Alliance

Degree dissertation prior to obtaining the degree of Bachelor of Arts in International Studies.

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### **DEDICATION**

I would like to dedicate this work to all the people who have accompanied me along this path, especially my mother and my father, who have been fundamental pillars in my life.

#### **THANKS**

I would like to thank all the people who contributed to the completion of this thesis. To my family, for their unconditional support. To my friends for their company throughout the process. To my director for her teachings and advice. And finally, to all those who were part of my university life.

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#### 1. Abstract:

The main objective of this research is to analyze and examine in detail the evolution of the trade balance between Peru and Colombia since their entry into the Pacific Alliance, covering the periodfrom 2011 to 2022. The results obtained indicate that membership in the Pacific Alliance has yielded a positive effect on the trade balance of both countries. Specifically, a significant increase in exports has been observed since their entry, as well as a greater number of strategic partners in international trade. These findings substantiate the significance of economic integration and regional cooperation as pivotal to the economic growth and development of Peru and Colombia. Furthermore, they provide a solid foundation for future analyses.

Keywords: Pacific Alliance, exports, imports, integration, trade balance

#### 2. Resumen:

El objetivo principal de esta investigación es analizar y examinar en detalle la evolución de la balanza comercial de Perú y Colombia desde su ingreso a la Alianza del Pacífico durante el periodo 2011 - 2022. Los resultados obtenidos indican que el ser miembro de la Alianza del Pacífico ha generado un efecto positivo en la balanza comercial de ambos países. Específicamente, se ha observado un incremento significativo en las exportaciones desde el momento de su ingreso, así como un mayor número de socios estratégicos en el comercio internacional. Estos hallazgos respaldan la importancia de la integración económica y la cooperación regional como clave del crecimiento y desarrollo económico de Perú y Colombia; además de proporcionar una base sólida para futuros análisis.

Palabras clave: Alianza del Pacifico, balanza comercial, exportaciones, importaciones, integración



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# ANALYSIS OF THE TRADE BALANCE OF COLOMBIA AND PERU SINCE THEIR ENTRY INTO THE PACIFIC ALLIANCE

#### 3. Introduction

Over time, international trade has experienced significantly faster growth than world income. In particular, the share of manufacturing and services has increased significantly (Behar & Venables, 2010). At the regional level, trade growth is higher, as distance and political and cultural barriers remain obstacles to faster growth at the interregional level. This dynamic has led to the formation of regional agreements that underpin much of today's trade. In 2011, the Pacific Alliance emerged as a regional integration initiative. Its main objective is to promote free trade in goods, services, capital and people between Mexico, Chile, Colombia and Peru, in order to improve the trade capacities of these countries and take advantage of their comparative advantages. In addition, the Alliance seeks to establish alliances with other trade blocs and focus on the Asian coastal market as one of its main strategic objectives; likewise, it pursues trade articulation as a bloc among member countries with the purpose of improving regional competitiveness and having a positive impact on the exchange balance of each country (Pacific Alliance, 2017).

Thanks to the research conducted on the Pacific Alliance and various previous studies, a deep knowledge has been obtained about the challenges that this integration entails, particularly regarding the impact of trade agreements on the countries' balance of payments and their economic effect, whether positive or negative. Therefore, the objective of this research lies in understanding the effects that economic integration and free trade have on the economies of Peru and Colombia. By examining the factors that have influenced the economic performance of both countries and the policies that have had a positive or negative impact on bilateral trade, it will be possible to identify the evolution of the trade balance. In addition, this research will make it possible to evaluate the effectiveness of the Pacific Alliance in promoting trade and economic cooperation.

#### 3.1. Objectives

Analyze the commercial effects of Peru's and Colombia's entry into the Pacific Alliance.

- Identify the economic, political and social variants that drive the countries to join the Pacific Alliance.
- 2. Analyze the trade balance of Peru and Colombia as member of the Pacific Alliance.
- 3. Identify the effects on the trade balance of Peru and Colombia after joining the Pacific Alliance.

#### 3.2. Theoretical Framework

Regional integration processes show that the conjunction of collaborative efforts and the adoption of coordinated policies are indispensable elements to achieve objectives in the economic, commercial,

political and social spheres, with the purpose of satisfying existing needs and promoting collective well-being (CEPAL, 2014).

The Pacific Alliance emerged as an economic and development initiative between four Latin American nations: Chile, Colombia, Mexico and Peru. From its inception to the present, this alliance has become the center of a new way of doing business on the continent. It has a mechanism for political and economic articulation, cooperation and integration that seeks to create a space to promote greater growth and competitiveness in the four economies that make up the alliance. It is important to note that there are five types of regional integration, and the Pacific Alliance is classified as the first of these types, which is a free trade zone. This type of integration involves agreements to eliminate tariffs and non-tariff barriers to goods and services originating from any of the member countries of the agreement (Morales, 2018).

According to Poicon (2018), international trade theory focuses on the patterns and effects of the exchange of goods and services between countries. Based on David Ricardo's theory of comparative advantage, it suggests that countries can gain benefits through specialization and exchange of products. In the context of the Pacific Alliance, this theory helps to understand how the incorporation of Colombia and Peru into the bloc has influenced their bilateral trade, as well as the development of exports and imports between the two countries.

Economic integration gives the member countries of an alliance the opportunity to significantly expand their domestic market, leading to greater potential for economic growth. By linking their markets and eliminating trade barriers, an environment is created that is conducive to increased foreign trade, which means greater possibilities for growth and development for companies. In addition, the elimination of trade barriers and the harmonization of regulations facilitate access to more advanced inputs and technologies, stimulating innovation and the adoption of more efficient production practices, thus improving the productivity and competitiveness of companies in integrated countries. Economic integration also encourages countries to specialize in areas where they have comparative advantages, allowing for a more efficient allocation of resources and maximization of economic benefits. Countries can focus on producing those goods and services in which they are most efficient and then exchange them with other members of the economic integration, taking advantage of economies of scale and generating mutual benefits. In addition, economic integration can strengthen cooperation and political stability among member countries because, by working together to achieve common goals, stronger ties are forged that contribute to peace and an environment conducive to sustainable economic development. In short, economic integration offers a number of potential benefits that can motivate a country to want to be part of an alliance.

The Pacific Alliance is seen as a platform for strengthening political and diplomatic relations between member countries, as well as promoting cooperation in various areas, such as security, education, science and technology, among others. In addition, regional integration can improve the position of member countries at the international level. Its focus on expanding trade and facilitating investment also boosts economic growth and sustainable development in the region, generating employment and opportunities for its citizens. This strategic alliance reflects the commitment of member countries to collaborate with each

other and strengthen their ties to address global challenges and leverage shared advantages in the Pacific region.

The Pacific Alliance also seeks to promote human and social development in member countries through cooperation in areas such as education, health, culture and sports. In addition, economic integration can generate employment and opportunities for the population, which can contribute to the reduction of poverty and inequality.

#### 4. Literature Review

Ulloa (2017) conducted research on trade between the Pacific Alliance countries. A gravity model was used, and bilateral exchange was analyzed with the objective of showing the evolution of Colombia's bilateral trade with the other three founding countries of the Alliance, within a framework of applying a gravity model for exchanges of goods. It was concluded that the volume of exports consistently has a direct relationship with the size of the market represented by the Gross Domestic Product (national production) and an inverse relationship with the physical distance and associated transportation costs.

Cazallo and Salazar (2018) conducted a macroeconomic analysis of the Pacific Alliance countries during the period 2011-2015. Their objective was to examine the macroeconomic situation of the Pacific Alliance member countries and to highlight the importance of the Pacific Alliance as a multilateral integration mechanism since its establishment.

Montoya, Gonzales and Duarte (2016) conducted research to analyze the situation and challenges faced by Colombia in terms of foreign trade as a member of the Pacific Alliance. They used the Balassa method and concluded that Colombia has maintained a certain stability and efficiency in its exports to Pacific Alliance countries.

Jara (2019), in his research on Peru's trade balance with Pacific Alliance member countries, adopted a quantitative approach. He concluded that the evolution of the trade balance between Peru and the Pacific Alliance countries has been negative, since the values of the trade balance have been negative, indicating that Peru has imported more than it has exported.

Seminario (2018) conducted a scientific study on logistics and export efficiency of the Pacific Alliance during the period 2010-2016. The objective was to examine whether there is a relationship between logistics efficiency and the value of Pacific Alliance exports during that period. The study was conducted using a quantitative approach and was based on documentary sources. It was concluded that there is a relationship between logistics efficiency and the value of Pacific Alliance countries' exports over the period 2010-2016, with exports having a positive impact. This suggests that as logistics becomes more efficient, the countries' export development will improve. Therefore, it is important to promote productivity in the logistics sector, as this sector plays a crucial role in securing revenues related to merchandise trade.

Acosta and Quiroz (2017) conducted a research entitled "The Impact of Corruption on the Pacific Alliance Economy between 2002 and 2016", with the objective of examining how corruption has affected the Pacific Alliance economy during the period between 2002 and 2016. The study is based on a quantitative approach and analysis of existing literature. It concluded that the level of Gross Domestic Product (GDP) in the Pacific Alliance economy shows similar growth in the four economies. However, during this period, Peru's growth has been higher compared to that of the other economies, suggesting that corruption has not affected the Peruvian economy and other economies in the alliance as much.

Del Valle (2013) in his study entitled "Perspectives of the Pacific Alliance in the Creation of Regional Productive Chains," aimed to examine the opportunities arising from the Pacific Alliance to foster the creation and consolidation of productive chains among its members. The author concludes that throughout the process of forming the Pacific Alliance, the willingness of all member countries to establish effective regional integration has been observed. In other words, the idea is to promote the creation of a platform that connects industry and trade in order to promote the economic development of each of the countries involved.

Celis (2015), in his thesis entitled "The Pacific Alliance: between deep integration and cooperation," aimed to determine whether the discourse on deep integration in the Pacific Alliance is based on concrete facts or whether it is simply a new regional initiative focused on intergovernmental cooperation. It also sought to identify the purposes and prospects of this cooperation. The author concluded that the Pacific Alliance, being a free trade zone, intends to become a means of economic and trade integration, as well as a platform for projection towards the world, especially towards the countries of the Asia-Pacific region, which seek to take advantage of it to increase their bargaining power. In addition, it should be noted that the Pacific Alliance has special economic characteristics due to the affinities and similarities in the economic models of its member countries, which makes it one of the biggest commercial bets worldwide. Prospects indicate that it could become one of the main drivers of global growth in the next 10 years, surpassing the GDP of large economies such as Brazil, the United Kingdom, Japan and even Russia.

Therefore, the objective of this analysis is to examine the trade balance of Peru and Colombia in order to understand the benefits of being part of this Alliance.

#### 5. Methods

The research approach used for this work was quantitative in nature, which involves the collection and analysis of existing numerical data or through surveys. According to Gómez (2006), this approach allows obtaining answers to the research questions and testing the hypotheses previously established.

The research method used in this work is descriptive, which consists of collecting data to identify important factors and characteristics of the trade balance of Peru and Colombia, as well as the benefits obtained by

each country. This type of research describes situations or events in a population over a period of time. Gómez (2006) points out that descriptive studies seek to specify the properties, characteristics and relevant aspects of the analyzed phenomenon.

To carry out this study, a review of historical data that provide measurable figures on the trade balance of Peru and Colombia since their entry into the Pacific Alliance was carried out. The technique used for data collection is bibliographic, which implies the compilation of information from reliable secondary sources. Carrasco (2009) argues that this technique involves documentary study and obtaining data from reliable sources.

The sample selected for the study comprises data from Peru and Colombia obtained from sources such as the World Bank, the Central Bank of Peru, the Central Bank of Colombia and the Trade Map tool. These data cover the period from the entry of both countries into the Pacific Alliance to the present and was reviewed through the available literature.

#### 6. Results

6.1. Results of Peru's trade balance for the period (2011-2022)

**6.1.1.** Value of exports from Peru

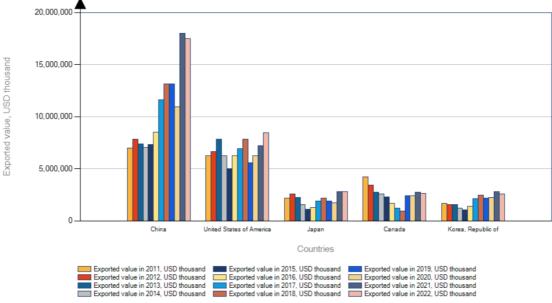
Peru is recognized for its wide variety of exported products, there are key sectors that stand out in the country's exports. These are fundamental to the Peruvian economy and have driven financial and job growth. Peru's abundance and diversity of natural resources have been a driving force for its export capacity. Sectors in which the country excels in exports include minerals and precious metals, agricultural products, fish and fishery products, textiles and apparel, as well as petroleum products. These sectors have allowed Peru to position itself in international markets by taking advantage of its natural resources and productive capacity. They have also generated employment and contributed to the country's economic development.

Figure 1 shows the value of Peru's exports during the period between 2011 and 2022, expressed in thousands of dollars (USD).

#### Figure 1

Peru's export value to other markets period 2011-2022





Source: Retrieved from Trade Map

Figure 1 shows five of the main countries to which Peru exports, in addition to the value exported in thousands of dollars from 2011, when Peru joined the Pacific Alliance, to 2022, which shows the most recent data.

We can observe that, in 2011, the values exported by Peru remained around US\$5,000,000 with most of these countries, with the exception of China. Since Peru joined this alliance, the main objective has been to establish business with China. Since 2011, a considerable increase in the value exported in thousands of dollars can be observed. The year 2021 registered the highest increase, reaching more than 15,000,000. This is evidence that the main objective of the Pacific Alliance has been met in this country and continues, as Peru's largest exports since 2011 have been to China.

**Table 1**Peruvian exports to the world (2011-2022)

Year	Value in	Variation
	Thousands of	(%)
	USD	
2011	\$ 46.386.022	-
2012	\$ 46.366.536	0,0%
2013	\$ 42.568.899	-8,2%
2014	\$ 38.645.855	-16,7%
2015	\$ 33.246.845	-28,3%
2016	\$ 36.039.994	-22,3%
2017	\$ 44.237.949	-4,6%
2018	\$ 47.223.269	1,8%
2019	\$ 45.135.222	-2,7%
2020	\$ 38.757.234	-16,4%

2021	\$ 56.260.115	21,3%
2022	\$ 58.172.424	25,4%

Note: Source: Trade Map

Table 1 shows that the value of Peruvian exports has experienced significant fluctuations in recent years. In 2011, the figure of US\$46,386.022 million was reached, although there was a slight decrease in 2012 to US\$46,366.536 million (-0.04%). The negative trend continued in the following years, with declines of 8.2%, 16.7%, 28.3% and 22.3% in 2013, 2014, 2015 and 2016, respectively. In 2017, a decrease of 4.6% to \$44,237.949 million was recorded. However, in 2018, Peruvian exports experienced a significant increase, reaching US\$47,223.269 million (+1.8%). In contrast, in 2019 and 2020, reductions of 2.7% and 16.4%, respectively, were observed, placing exports at US\$45,135.222 million and US\$38,757.234 million. The years 2021 and 2022 marked a positive change, with a substantial increase in exports. In 2021, exports reached US\$56,260.115 million (+21.3%), and in 2022, a value of US\$58,172.424 million (+25.4%) was recorded, representing the largest variation with respect to the previous year.

Figure 2

Peru's export value with China (2011-2022)

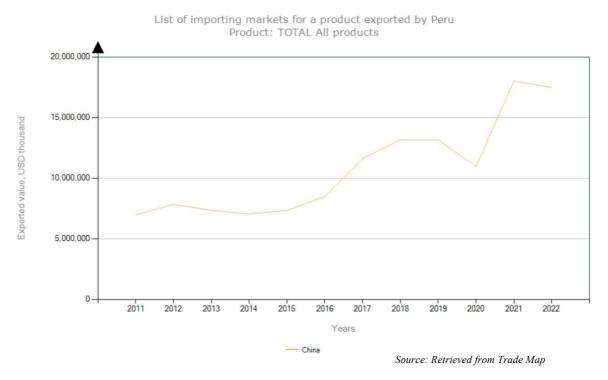


Figure 2 presents a detailed analysis of Peruvian exports to China, considering that China is Peru's main trading partner. A marked increase in Peruvian exports to this country can be clearly seen since Peru joined the Pacific Alliance. Peru's integration into this alliance has generated significant opportunities for bilateral trade with China. As Peru has strengthened its trade ties and established preferential trade agreements with China, it has experienced a remarkable growth in exports to this particular market. This increase in exports is mainly attributed to the benefits derived from the elimination of trade barriers and the facilitation of

access to the Chinese market. The Pacific Alliance has worked to reduce tariffs and simplify customs procedures, which has enabled Peruvian companies to export their products more efficiently and competitively. In addition, Peru's membership in the Pacific Alliance has promoted the promotion of Peruvian products in the Chinese market through trade missions, fairs and promotional events. This has contributed to increasing the visibility and demand for Peruvian products in China, thus stimulating export growth. It is important to note that this increase in Peruvian exports to China has not only benefited the export sector but has also had a positive impact on the Peruvian economy in general. The increase in exports implies an increase in foreign exchange earnings and contributes to economic growth, employment generation and the development of other sectors linked to exports.

Table 2 Values exported Peru with China (2011-2022)

Year	Value in	Variation (%)
	thousands of	
	USD	
2011	\$ 6,972,639	-
2012	\$ 7,843,946	12,5 %
2013	\$ 7,354,028	5,5 %
2014	\$ 7,042,587	1,0 %
2015	\$ 7,332,901	5,2 %
2016	\$ 8,483,938	21,7 %
2017	\$ 11,626,233	66,7 %
2018	\$ 13,167,721	88,8 %
2019	\$ 13,159,187	88,7 %
2020	\$ 10,963,064	57,2 %
2021	\$ 17,994,761	158,1 %
2022	\$ 17,489,368	150,8 %

Note. Source: Trade Map

Table 2 shows a significant growth in Peru's exports to China from 2011 to 2022. In 2011, exports reached \$6,972.639 million dollars, and over the years have experienced positive percentage variations. In 2022, the value exported to China amounted to \$17,489.368 million dollars, representing a positive percentage increase of 150.8%. These data indicate that since Peru joined this trade alliance, exports to China have shown steady growth, with percentage variations always in positive territory compared to the year of entry.

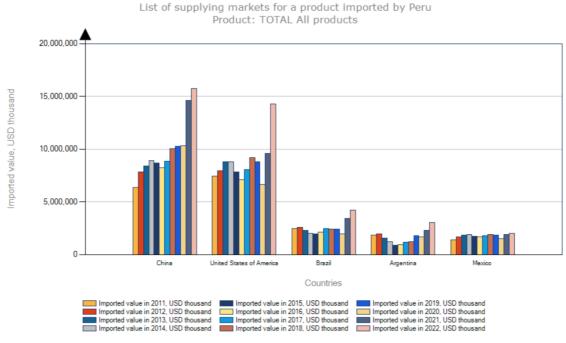
#### 6.1.2. Value of Peruvian Imports

Peru acquires a wide range of products through imports, which is essential to meet its domestic needs and strengthen its economy in a global context. The country depends on these imports to obtain goods and services that are not produced locally or to complement its current supply. Products imported by Peru include machinery, equipment, electronic products, energy resources, food, agricultural products, consumer goods, among others. These imports play a fundamental role in driving economic development, satisfying domestic demand and guaranteeing the availability of products that are not produced in sufficient quantities or of the same quality in the country.

The following table shows Peru's imports for the period 2011 - 2022, the value of imports is expressed in thousands of dollars (\$ USD).

Figure 3

Imported values from Peru with the world (2011-2022)



Source: Retrieved from Trade Map

Figure 3 shows five of the countries from which Peru imports the most and the value imported in thousands of dollars from 2011, the year it joined the Pacific Alliance, until 2022, the latest data collected, including China, the United States, Brazil, Argentina and Mexico.

We can see that in 2011 the values imported by Peru remained between 5,000,000 US dollars and below with most of these countries except for China. Since 2011 we can observe that the imported value in thousands of dollars has been increasing considerably, being 2022 the year when the most considerable increase occurred, since the imported value reached more than 15,000,000.

Table 3

Imported values from Peru with the world (2011-2022)

Year	Value	in	Variation (%)
	thousands	of	
	USD		

2011	\$ 37,891,035	-
2012	\$ 42,162,927	11,3 %
2013	\$ 43,321,707	14,3 %
2014	\$ 42,177,198	11,3 %
2015	\$ 38,059,620	0,4 %
2016	\$ 36,129,331	-4,6 %
2017	\$ 39,763,959	4,9 %
2018	\$ 43,144,346	13,9 %
2019	\$ 42,364,042	11,8 %
2020	\$ 36,064,092	-4,8 %
2021	\$ 51,177,743	35,1 %
2022	\$ 60,246,491	59 %

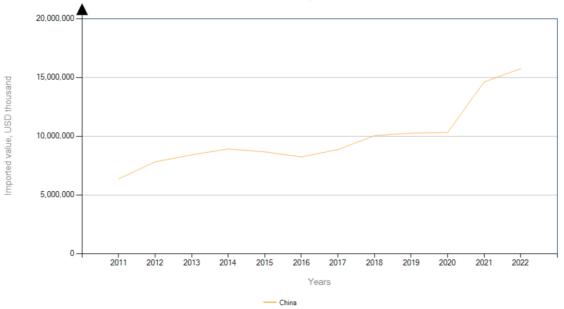
Note. Source: Trade Map

Table 3 presents a detailed representation of the value of Peruvian imports over the years, showing significant changes in these values. In 2011, imports reached US\$37,891.035 million. From that point, an increase of 11.3% was observed in 2012, reaching US\$42,162.927 million, followed by increases of 14.3% in 2013 and 11.3% in 2014. In 2015, imports experienced a slight decrease to \$38,059.620 million, with a percentage change of 0.4%. In 2016, imports continued to decline to US\$36,129.331 million (-4.6%). However, in 2017, there was an increase of 4.9% to \$39,763.959 million. In 2018, imports experienced a significant increase of 13.9% to US\$43,144.346 million. In 2019, imports stood at \$42,364.042 million, up 11.8%. However, in 2020, a decrease of 4.8% to US\$36,064.092 million was observed. The years 2021 and 2022 showed a considerable increase in imports, with values of US\$51,177.743 million (+35.1%) and US\$60,246.491 million (+59%), respectively; the latter being the year with the highest volume of imports recorded.

Figure 4

Imported value from Peru to China (2011-2022)

List of supplying markets for a product imported by Peru Product: TOTAL All products



Source: Retrieved from Trade Map

Import trade between Peru and China has experienced a sustained increase since 2011. The graphical analysis clearly evidences this notorious growth in trade, with the most significant increases observed from 2020 onwards. This upward trend has continued to the present, reflecting the growing relevance of trade relations between the two countries. This steady increase in bilateral trade underscores the growing importance of these trade relations and the benefits they have generated for the Peruvian economy.

Table 4

Imported values from Peru to China (2011-2022)

Year	Value in	Varition (%)
	thousands of	
	USD	
2011	\$ 6,364,754	-
2012	\$ 7,814,505	22,8 %
2013	\$ 8,413,580	32,2 %
2014	\$ 8,914,608	40,1 %
2015	\$ 8,660,462	36,1 %
2016	\$ 8,235,308	29,4 %
2017	\$ 8,861,241	39,2 %
2018	\$ 10,044,887	57,8 %
2019	\$ 10,255,204	61,1 %
2020	\$ 10,310,219	62 %
2021	\$ 14,611,643	129,9 %
2022	\$ 15,744,692	147,4 %

Note. Source: Trade Map

Table 4 presents the evolution of the value of Peruvian imports, showing a steady increase in most years, although with some variations. From 2011 to 2016, the value remained around US\$8,000,000. From 2017 onwards, a gradual increase was observed, exceeding US\$8,000,000 and reaching US\$10,000,000 in 2018 and 2019. In 2020, a slight increase to \$10,310,219 was recorded. The most significant growth is evident in 2021, with imports of US\$14,611,643, possibly driven by economic growth, increased demand for Chinese products in Peru and diversification of imports. In 2022, imports continued their upward trend, reaching US\$15,744,692. This steady growth reflects the importance of the trade relationship between Peru and China, as well as the positive impact on the country's economic development.

#### 6.2. Results of Colombia's trade balance in the period (2011-2021)

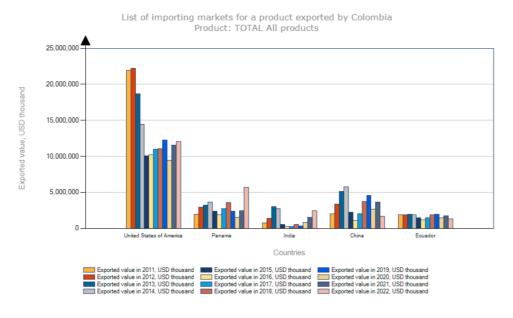
#### **6.2.1.** Value of Colombian exports

Colombia is a country that has managed to diversify its export offer over time, presenting a wide range of products for commercialization. Thanks to its abundant biodiversity and the quality of its products, Colombia stands out in several sectors, allowing the country to maintain a significant presence in international markets. From traditional products such as coffee and flowers, to oil and coal exports, Colombia has demonstrated its ability to adapt to global demands and expand its participation in various industries. In addition, the country has emphasized the development of the textile and apparel industry, as well as the export of gold and tropical fruits, consolidating its position as a relevant player in international trade.

The following table presents Colombia's exports for the period 2011 - 2022. The value of exports is expressed in thousands of dollars (\$ USD).

Figure 5

Exported value from Colombia to other markets, period 2011-2022



 $Source: Retrieved from \ Trade \ Map$ 

Figure 5 shows information on the five main destination countries for Colombian exports, as well as the value exported in thousands of dollars from 2011 to 2022 (the latest available record). These countries include the United States, Panama, India, China, and Ecuador.

Analyzing the data, we can observe that, in 2011, Colombia's exports exceeded US\$20,000,000. During 2012, they remained around this figure. However, as of 2013, they began to decrease and since 2015 they have experienced fluctuations, with periods of increases and decreases in exported values.

Table 5 Exported Values of Colombia to Other Markets (2011-2022)

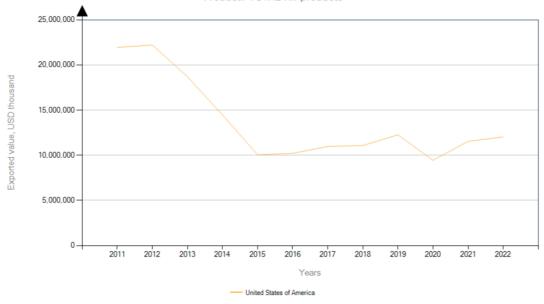
Year	Value in	Variation (%)
	thousands of	
	USD	
2011	\$ 56,953,516	-
2012	\$ 60,273,618	5,8 %
2013	\$ 58,821,870	3,3 %
2014	\$ 54,794,812	-3,8 %
2015	\$ 35,690,767	-37,3 %
2016	\$ 31,095,444	-45,4 %
2017	\$ 37,770,123	-33,7 %
2018	\$ 41,769,699	-26,7 %
2019	\$ 39,496,225	-30,7 %
2020	\$ 31,045,676	-45,5 %
2021	\$ 40,488,600	-28,9 %
2022	\$ 38,950,952	-31,6 %

Note. Source: Trade Map

Table 5 provides information on the values of Colombia's exports to other markets showed a downward trend during the period from 2011 to 2022. There was a 5.8% increase in exports in 2012, reaching a value of \$60,273.618 million dollars. However, starting in 2014, exports experienced consecutive declines, with significant decreases in 2015, 2016 and 2020. Overall, the data reveal a negative trend in Colombian exports, with some fluctuations in growth and decline.

Figure 6 Exported Value of Colombia with the United States (2011-2022)

List of importing markets for a product exported by Colombia Product: TOTAL All products



Source: Retrieved from Trade Map

Over the years, Colombia has maintained an important trade relationship with the United States. This country stands out as one of Colombia's main trading partners, both in terms of exports and imports. Looking at Figure 5, it can be noted that the years 2011 and 2012 recorded the highest export values, exceeding US\$20 billion. However, since that time, a decrease in exports to the United States has been observed.

Since 2013, exports have experienced a steady downward trend, reaching an average of close to US\$10 billion in 2015. Since then, this figure has remained relatively stable through 2022, showing no significant recovery. Despite this downward trend in exports to the United States, it is important to note that the trade relationship between the two countries remains strong and current.

**Table 6**Exported Values of Colombia to the United States (2011-2022)

Year	Value in	Variation (%)
	thousands of	
	USD	
2011	\$ 21.948.535	-
2012	\$ 22.216.238	1,2 %
2013	\$ 18.692.895	-14,8 %
2014	\$ 14.470.697	-34,0 %
2015	\$ 10.052.617	-54,2 %
2016	\$ 10.215.894	-53,4 %
2017	\$ 10.975.962	-49,9 %
2018	\$ 11.080.579	-49,5 %
2019	\$ 12.265.471	-44,1 %
2020	\$ 9.442.028	-56,9 %
2021	\$ 11.549.621	-47,3 %
2022	\$ 12.033.530	-45,1 %

Note. Source: Trade Map

Table 6 presents a detailed breakdown of Colombia's exports to the United States during the period between 2011 and 2022. In general, a downward trend in these exports is observed over time. Although a slight recovery was observed in certain periods, exports experienced a steady decline starting in 2013, reaching their lowest level in 2015. From 2016 onwards, exports remained stable, with some minor fluctuations. In 2020, there was a considerable drop, but there was a partial recovery in 2021 and 2022. In summary, the table shows a decrease in Colombia's export values to the United States since joining the Pacific Alliance, with some variations and a partial recovery in certain periods.

#### **6.2.2.** Import Value of Colombia

Colombia, in its quest to meet domestic demands and strengthen its economy, has expanded its range of imported products. With sustained economic growth, the country has experienced an increase in demand for goods and services from abroad. This growth encompasses various sectors, from the acquisition of state-of-the-art machinery and equipment to boost industry, to the import of specialty chemicals for production and research. The importance of electronics imports has increased significantly, as access to advanced technology has become essential for Colombian society. In addition, Colombia continues to import fuels and mineral oils to meet its energy needs. In conclusion, Colombia has established a solid import network that allows it to supply domestic demands and strengthen its economy in the current global context.

The following table shows Colombia's imports for the period 2011 - 2022. The value of exports is expressed in thousands of dollars (\$ USD).

Figure 7

Imported Value of Colombia with Other Markets (2011-2022)

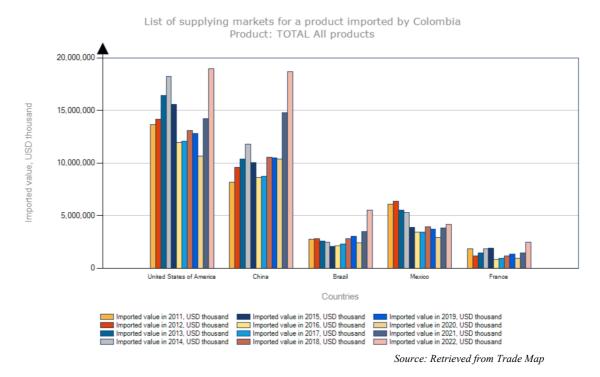


Figure 7 presents information on the top five countries from which Colombia imports, along with the value imported in thousands of dollars during the period from 2011 to 2022, spanning from Colombia's integration into the Pacific Alliance to the most recent data collected. These countries include the United States, China, Brazil, Mexico and France.

It can be clearly seen that the year 2022 recorded the highest volume of Colombian imports from each of the countries. This significant increase in imports reflects the growth of Colombia's international trade and its outstanding position in the global market.

Table 7

Imported Values of Colombia with the World (2011-2022)

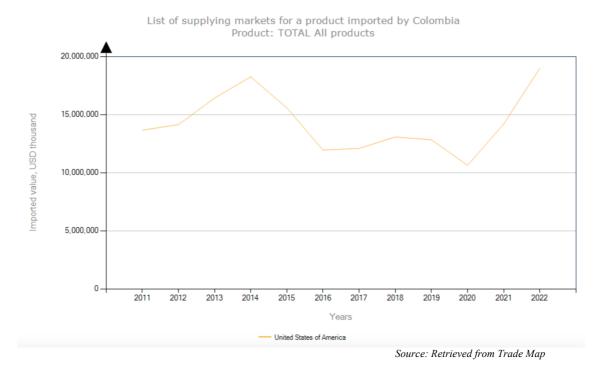
Year	Value in	Varition (%)
	thousands of	
	USD	
2011	\$ 54.674.822	-
2012	\$ 58.087.854	6,2 %
2013	\$ 59.381.197	8,6 %
2014	\$ 64.027.610	17,1 %
2015	\$ 54.057.599	-1,1 %
2016	\$ 44.889.367	-17,9 %
2017	\$ 46.075.705	-15,7 %
2018	\$ 51.232.805	-6,3 %
2019	\$ 50.413.025	-7,8 %
2020	\$ 43.488.662	-20,5 %
2021	\$ 61.101.362	11,8 %
2022	\$ 77.413.351	41,6 %

Note. Source: Trade Map

Table 7 provides information on Colombia's imports with the rest of the world during the period between 2011 and 2022. During this period, significant figures were observed in Colombian imports. Initially, there was a steady increase in the first years, reaching peak values in 2014. However, starting in 2015, there was a decrease in imports, followed by a downward trend in 2016 and 2017. From 2018, a slight increase was recorded, although again decreasing in 2019 and 2020. However, in 2021 and 2022, notable increases in imports were observed. These data reveal fluctuations in the values imported by Colombia with the rest of the world throughout the period analyzed, indicating years of growth followed by years of decrease in imports.

Figure 8

Imported Value of Colombia with the United States (2011-2022)



Colombia's imports from the United States have maintained a constant level since 2011, fluctuating between US\$10,000,000 and US\$15,000,000 million. This range of imports reflects a stable and significant trade relationship between the two countries over the past several years. The consistency in imported value demonstrates the confidence and continued demand for U.S. products in the Colombian market, as well as the strength of trade ties and economic collaboration between the two nations.

Table 8

Imported Values of Colombia with the United States (2011-2022)

Year	Value in	Varition (%)
	thousands of	
	USD	
2011	\$ 13.663.338	-
2012	\$ 14.140.116	3,5 %
2013	\$ 16.428.423	20,2 %
2014	\$ 18.256.281	33,6 %
2015	\$ 15.583.375	14,1 %
2016	\$ 11.946.833	-12,6 %
2017	\$ 12.096.143	-11,5 %
2018	\$ 13.075.918	-4,3 %
2019	\$ 12.832.603	-6,1 %
2020	\$ 10.634.174	-22,2 %
2021	\$ 14.191.638	3,9 %
2022	\$ 18.990.693	39 %

Note. Source: Trade Map

Table 8 shows that during the period between 2011 and 2022, Colombia's imports from the United States experienced changes. Initially, a gradual increase was observed in the first years, peaking in 2014. However, starting in 2015, a decrease in the value of imports was evident, followed by a downward trend in 2016 and 2017. Starting in 2018, there was a slight increase, although decreases were again present in 2019 and 2020. In 2021 and 2022, there were notable increases in imports. These data reveal fluctuations in the values imported by Colombia from the United States during the period analyzed, with years of growth followed by years of decrease in imports.

#### 7. Discussion

The Pacific Alliance has generated important changes in the trade balance of its member countries, as evidenced by the results of this study, which analyzes the exports and imports of Colombia and Peru since their incorporation into the regional bloc. These results support the findings of various authors and theories, present in the literature review, on the impact of economic integration and logistics efficiency on international trade.

Ulloa (2017) highlights the direct relationship between the size of the market represented by GDP and the volume of exports. In the case of Peru, this phenomenon is evident with its steady growth in exports to China, its main trading partner. The Peruvian sector has managed to diversify its export offer, standing out in areas such as minerals, agricultural products, fisheries, textiles and oil derivatives. In 2022, Peruvian exports reached US\$58,172 million, a significant increase of 25.4% over the previous year.

On the other hand, Colombia has faced challenges in its exports. Although the country has managed to diversify its exportable supply in sectors such as coffee, flowers, oil, coal, textiles, gold and tropical fruits, it has experienced a downward trend since 2011, with occasional fluctuations. Colombian exports have hovered around US\$10 billion in recent years, and the United States remains its main trading partner, although exports to that country have declined since 2012.

The gravity model theory, applied by Ulloa (2017), highlights the importance of physical distance and associated transportation costs in international trade. In this sense, the Pacific Alliance has sought to reduce these logistical barriers to promote greater trade exchange among its member countries. Logistics efficiency, as Seminario (2018) mentions, has a positive impact on the value of exports. Therefore, it is essential to promote productivity in the logistics sector to boost merchandise trade in the context of the Pacific Alliance.

Regarding corruption, Acosta and Quiroz (2017) find that GDP growth in the economies of member countries has been similar, but highlight Peru's higher growth, suggesting a lower affectation by corruption compared to other economies in the alliance. The fight against corruption is crucial to strengthen the trade balance and ensure a stable and transparent economic environment.

The study also highlights the importance of fostering the creation of regional productive chains among Pacific Alliance members, as mentioned by Del Valle (2013). This strategy allows taking advantage of the similarities and affinities in the economic models of the member countries, promoting effective economic integration and the economic development of each one. Celis (2015) highlights that the Pacific Alliance seeks to become a means of economic and trade integration projected towards the world, which demonstrates its relevance in the global context.

In conclusion, the analysis of the trade balance of Colombia and Peru since their entry into the Pacific Alliance supports the importance of this regional integration mechanism. Both countries have managed to diversify their exports and expand their destination markets, although they face specific challenges. The reduction of logistical barriers sustained economic growth, logistical efficiency and the fight against corruption are key aspects to enhance the benefits of regional integration and strengthen the trade balance within the framework of the Pacific Alliance.

#### 8. Conclusion

In summary, the analysis of the trade balance of Colombia and Peru since their incorporation into the Pacific Alliance has made it possible to achieve the objectives established in this research. First, it was possible to identify the economic, political and social factors that led both countries to join the Pacific Alliance. It was shown that the search for market diversification, the promotion of regional integration, the attraction of foreign investment and increased competitiveness were the main drivers of their participation. Second, a detailed analysis of the trade balance of Peru and Colombia as members of the Pacific Alliance was carried out. Significant growth in exports from both countries to the other members of the Alliance was observed, as well as an expansion of their destination markets. In addition, sectors such as agribusiness, manufacturing and services were identified as particularly benefited by it. Finally, the effects on the trade balance of Peru and Colombia after joining the Pacific Alliance were evaluated. It was found that being part of this alliance had a positive impact on reducing their dependence on raw material exports, strengthening their position in the regional value chain. In addition, it was noted that it boosted the attraction of foreign investment, the transfer of technology and the improvement of the business environment.

In conclusion, the incorporation of Peru and Colombia into the Pacific Alliance has generated significant trade effects. Both countries have managed to diversify and increase their exports, improve their competitiveness and strengthen their trade relations with other countries in the region. These results support the importance of the Pacific Alliance as a regional integration mechanism and its capacity to boost the economic and commercial development of its members.

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