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Spain intra-industry trade in Latin America a bilateral analysis 2011 - 2021

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SPAIN INTRA-INDUSTRY TRADE IN LATIN AMERICA A BILATERAL ANALYSIS 2011 - 2021

ABSTRACT

The analysis and impact of international trade have been taking on great importance as a factor of macroeconomic prosperity; in the same way, the pattern of trade impacts the competitiveness of the country's industries. In this sense, the simultaneous exports and imports of the same sector that determine intra-industrial trade impact on the sectoral competitiveness trough the generation of international trade of industries and products belonging to the same statistical category; then not based on the comparative advantages of international trade; but on the competitive advantages derived from the differentiation of products and added value. Under this focus, the study of intra-industry trade between Spain and Latin America during the period 2011-2021 is the basic objective of this working paper.

Keywords: Competitiveness, Exports, Free Trade, International Trade, Import, Intra-Industry Trade, Trade Balance

RESUMEN

El análisis e impacto del comercio internacional ha ido tomando gran importancia como factor de prosperidad macroeconómica; de la misma manera que el patrón de comercio impacta la competitividad de las industrias de un país. En este sentido, las exportaciones e importaciones simultáneas de un mismo sector que determinan el comercio intraindustrial impactan en la competitividad sectorial al generar comercio internacional de sectores y productos pertenecientes a la misma categoría estadística; es decir, no basados en las ventajas comparativas del comercio internacional; sino en las ventajas competitivas derivadas de la diferenciación de productos y el valor añadido. Bajo este enfoque, el propósito básico de este documento de trabajo es el estudio del comercio intraindustrial entre España y Latinoamérica en el período 2011-2021.

Palabras clave: Exportaciones, Libre Comercio, Comercio Internacional, Comercio intraindustrial, Balanza Comercial

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1. INTRODUCTION

International trade is one of the key factors in the macroeconomic prosperity of any country. In addition, globalization and trade have increased considerably in recent decades. However, some of the aspects of international trade are still not fully investigated, as well as their effects on the competitiveness and wealth of a country. In fact., a country's pattern of trade can determine both its level of wealth and its level of international competitiveness (Dudovskiy, 2022).

Nevertheless, it is not easy to get a precise concept of competitiveness. Mancha et al. (2016) define competitiveness as the ability to compete in markets, a concept acceptably clear when is referred to firms (microeconomic sphere), but ambiguous and imprecise when it comes to applying to an economy, whether they are considered at a national or regional scale (macroeconomic perspective). On the other hand, OECD (1992) quote that: "Competitiveness can also be defined as the degree to which, under open market conditions, a country can produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding real national income". Thus, similar exports and imports of the same good (intra-industry trade) can occur in an environment where characteristics and qualities highly differentiate the goods. This high level of differentiation originates from implementing innovation processes of products and services at the local level.

Johnson and Taylor (2009), explain that intra-industry trade increases the variety of products in the same industry, which benefits both firms and consumers. This benefit is possible because today's product range from the same industry can be highly differentiated, and intra-industry trade will provide the opportunity of having a vast range of differentiated products within the markets of trading partners.

In this context, the main objective of the paper is the analysis of intra-industrial trade between Spain and Latin America, considering both the strategic importance of markets with significant cultural, social, and economic similarities. Then, the framework of this paper is the following after this introduction. The second section is focused to the contextualization of trade relations between the two areas studied during the period 2011 -2021. The third section explains the extent and the nature of the intra -industry trade theory. The fourth section is devoted to the analysis of methodological aspects related to the measurement of intra-industrial trade. Finally, the fifth section presents the main results of the measurement of intra-industry trade between Spain and Latin America for the above referred years. A final section closes the paper with the conclusion remarks.

2. THE COMMERCIAL CONTEXT BETWEEN SPAIN AND LATIN AMERICA

According to the European Parliament (2016: 5), "…economic relations with Latin America are rich in diversity and scope. Since the 1990s, the EU has been Latin America's top investor, second trading partner, and main provider of development funds. EU trade and investment ties are especially significant with the largest economies in the region".

In fact, "With the second wave of regionalism in the 1990s, the movement of unions and regional integration agreements, elimination of customs barriers to imports and the liberalization of markets access were favoured by changes in development models in Latin America". (Moscoso, 2013:13). In this context, a key trigger for the EU and its new trade strategy in the region was the leading role of the United States in the establishment, firstly, of the North American Free Trade Area (NAFTA) and, second, in the unfortunate project of the Clinton Administration to build a Free Trade Agreement. Area of the Americas (FTAA). (Rodil et al., 2016).

Table 1: Trade Agreements and their Abbreviations

Partner Country	Name of Agreement	Short Name (included year signed)
Mexico	Economic Partnership, Political Coordination, and Cooperation Agreement	MX_EP97
Chile	Association Agreement	CL-AA02
Cariforum	Couture Agreement	CF-CA00
Cariforum	Economic Partnership Agreement	CF-EPA08
Central America	Association Agreement	CA-AA12
Peru/Colombia (also Ecuador and Bolivia)	EU-Andean Community Political Cooperation Agreement	AC-PCA03
Peru/Colombia	Trade Agreement	PECO-TA12

Source: European Parlament (EP), 2016.

For these reasons, the economic relationships between the European Union and Latin America were articulated in two main fields: trade and direct investment. In fact, in the 1990s, the European Union (EU) tried to negotiate partnerships and trade agreements with the different trading blocks in the region, following the so-called Strategy "Global Europe".

However, trade negotiations were on a 'bloc-to-bloc' basis. The results of this strategy were different and depended on each country's political and economic interests or trade bloc in Latin America (See: Table 1).

The EU has negotiated and signed various agreements with the region: in the case of Mexico, the so-called Economic Association, Political Coordination and Cooperation Agreement was signed; the Association Agreement is consolidated with Chile; with Cariforum an Economic Association Agreement; an Association Agreement with Central America; and finally with Peru/Colombia a Trade Agreement. Finally, on June 28, 2019, a political agreement was reached on the new commercial framework, which will form part of the Association Agreement between the European Union (EU) and the four founding members of Mercosur (Argentina, Brazil, Paraguay and Uruguay). (Latorre et al, 2021)

Trade relations between Spain and Latin America are older and can be dated from the end of the fifteenth century. In recent times, as mentioned by Gonzales and Perez (2021:534), "economic links, fundamentally related to trade and investment, on the one hand, and cooperation, on the other, have articulated the relationship between Spain and Latin America outstandingly". In this sense, Spain has become a great investor in the region. In fact, many Spanish firms debuted their internationalization process in Latin America. (Fazio, 2000:42). However, the diversification of the commercial destination of Spanish firms has reduced imports to regional economies in recent decades. But with the economic growth of several countries in the region and the expansion of foreign direct investment in Spain, Latin America has once again become the central focus of the Spanish business sector.

A proof of this trend during the last years is the following text of the Secretariat of State of Commerce Spain (2019:5) when explains that "Latin America and the Caribbean (LAC) are of strategic interest to Spain due to the historical links, cultural and economic relations between them. In addition to a shared cultural and linguistic identity, in recent years, there has been a significant increase in flows bidirectional migratory".

Latin America is Spain's sixth largest trading partner after Europe, the European Union, Asia, Africa and North America, from the double perspective of exports and imports (See figures 1 and 2). Despite the efforts of the European Union and Spain to increase trade flows, investment and mutual international cooperation relations in other areas, the results are not very meaningful.

Figure 1 and 2. Spain Trade by regions 2021
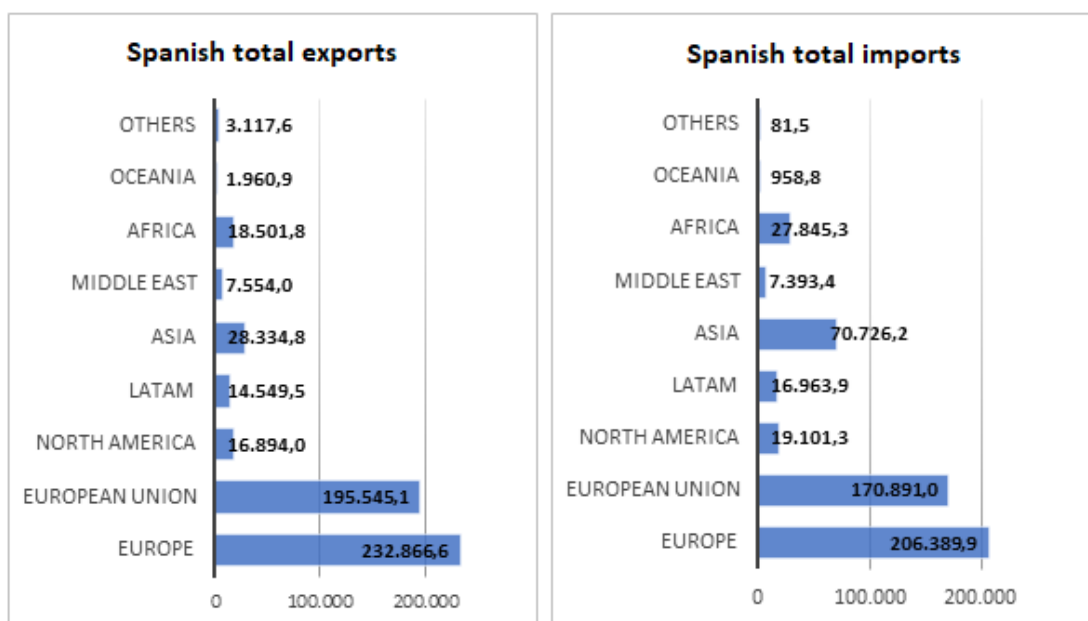
Bilateral trade between Spain and Latin America has always been in deficit for Spain (See figure 3). In 2012, total exports from Spain to Latin America were 13,816 million euros, while imports from the region were 19,659 million euros. According to the Ministry of Industry, Commerce and Tourism of Spain (2022), in 2020, bilateral merchandise trade between Spain and LAC (understood as the sum of exports and imports) fell by 20.4% compared to 2019, from 30,825 million euros to 24,523 million euros, accentuating the downward path that began in 2019. This behaviour is expected, given the global effects generated by the COVID-19 crisis in 2020. The data for the studied period reveal that Spanish exports to Latin America between 2012 and 2021 only increased by 5.3% in Latin America.
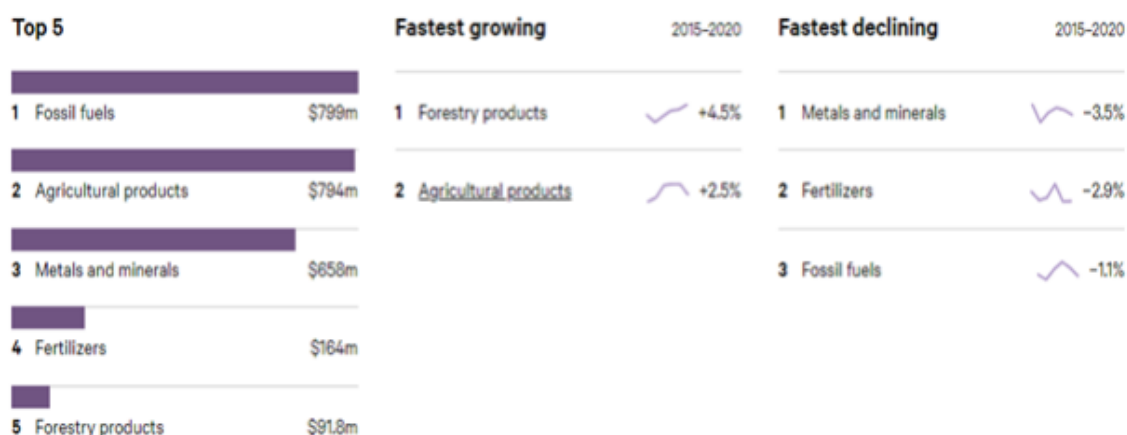
Figure 3. Trade Balance Spain – Latin America (2012 – 2021)

Source: comercio.gob.es

On the other hand, the quick growth of imports from Latin America, mainly "raw materials" (oil, minerals, and food), has made the region grow to a greater extent as a significative supplier of Spain (4.5% share in 2009 up to 5.6% in 2018, with a historical maximum of €19,659 million in 2012). In 2021, Latin American exports to Spain reached a share of 4.9% among our imports, which in that year reached €16,9642 million. (ICEX, 2022). However, the bilateral foreign trade figures between Spain and Latin America are still far from reaching their potential in trade. Spanish exports to Latin America were lower than to the United States (our sixth market with €14,769 million in 2021).

Exports of Spanish products to Latin America (2020) were mainly concentrated in the sector of products derived from fossil fuels, agricultural products, metals and minerals, fertilizers, and forestry products. At the sectoral level, Spanish exports to LAC in 2020 represented goods from the Semi-manufactured sector (33.6% of the total) and Capital goods (31.3%). More in detail, highlighted the export of chemical products (23.3% of the total), within the chapter on semi-manufactures; industrial machinery (12.1%) and electrical appliances (7.8%), within the chapter on Equipment goods; and textiles and clothing (5.5%), within the Consumer Manufactures chapter (See figure 4).
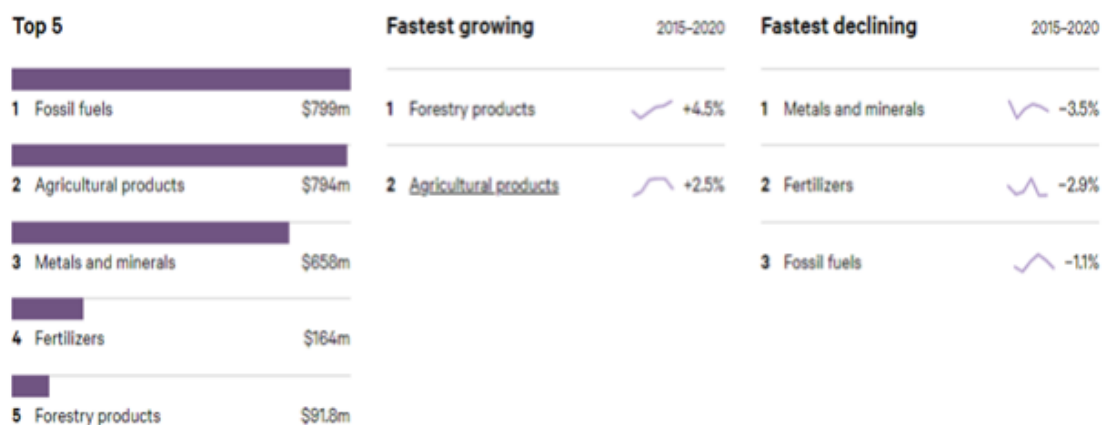
Figure 4:
Top 5 Spanish exports to Latin America and the Caribbean, 2020

Top 5		Fastest growing	2015–2020	Fastest declining	2015–2020
1 Fossil fuels	$799m	1 Forestry products	+4.5%	1 Metals and minerals	−3.5%
2 Agricultural products	$794m	2 Agricultural products	+2.5%	2 Fertilizers	−2.9%
3 Metals and minerals	$658m			3 Fossil fuels	−1.1%
4 Fertilizers	$164m				
5 Forestry products	$91.8m				

Source: resource trade earth, 2022

Spain imports from Latin America are concentered in agricultural products, fossil fuels, metals and minerals, forestry products, and fertilizers. Specifically, 23.7% of imports were explained by oil and derivatives within the Energy Products chapter; while in the Food category, products stand out fish (10.4%) and fruit (9.4%). –see figure 5-. At commercial level, the most important partners are Mexico and Brazil, mainly explained by the size of their economies and export capacity, followed by the intermediate-sized countries made up of Chile, Colombia, Argentina, Cuba, Peru, Dominican Republic, and Ecuador.

Figure 5:
Top 5 Spanish imports from Latin America and the Caribbean, 2020

Top 5		Fastest growing	2015–2020	Fastest declining	2015–2020
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3 Metals and minerals	$658m			3 Fossil fuels	−1.1%
4 Fertilizers	$164m				
5 Forestry products	$91.8m				

Source: resource trade .earth, 2022.

Regarding foreign direct investments, Spain has allocated 31% of them in Latin America (€510,265 million of the total investment made in the world, €158,341 million are destined for Latin America in 2020).

Figure 6:
Gross foreign direct investment flows Spain to Latin America without EFSH[1]
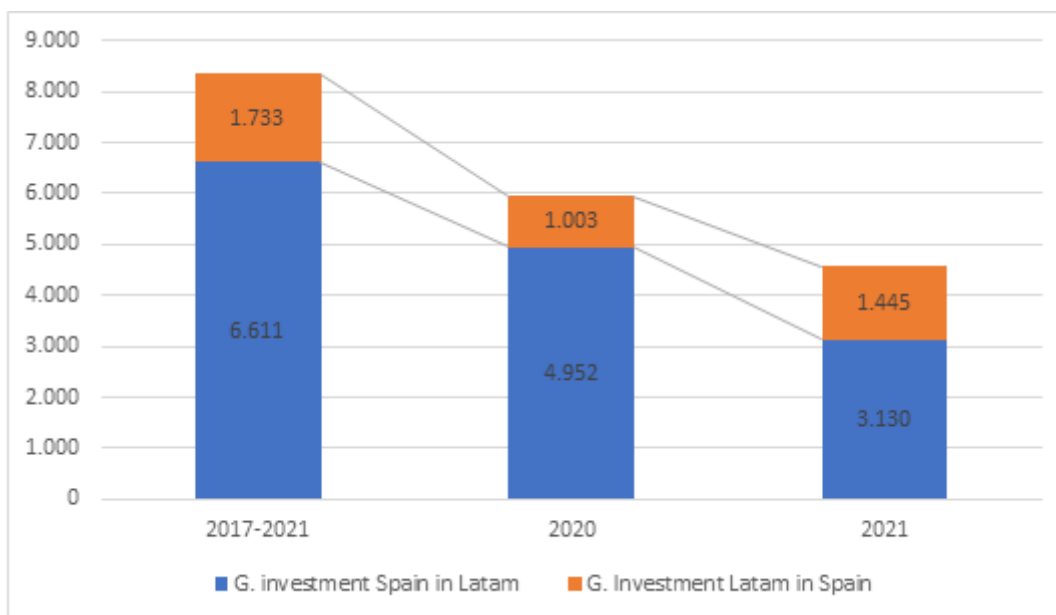
Source: datainvex.comercio.es

Latin American investments in Spain increased between 2020 and 2021, going from 1,003 to 1,445 million euros in 2021, an increase of 44.1% Despite the difficulties in carrying out new operations during the pandemic, in 2020, some very significant investments were registered. It should be noted that numerous new investment projects (greenfield) were announced by Latin American companies, mainly related to technology companies. (ICEX, 2021) The average gross investments of Latin America in Spain between 2017 and 2021 were 1,773 million euros (See figure 6. Gross foreign investment from Latin America to Spain was allocated to sectors such as the manufacture of other non-metallic mineral products, financial services, except insurance and pension funds, metallurgy, manufacture of iron and steel produced and the food industry.

In the case of Spanish investments in Latin American, they fell by 1,822 million euros in the 2020-2021 period. The average gross Spanish investment in the region amounted to 6,611 million euros from 2017-

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[1] Entities Holding of Foreign Securities which are basically carried out by international "holdings" for tax reasons.

2021. The main sectors of gross Spanish investment in Latin America are financial services, except insurance and pension funds; telecommunications; extraction of crude oil and natural gas; supply of electricity, gas, steam and air; insurance and reinsurance and pension funds.

3. EXTENT AND NATURE OF INTRA-INDUSTRY TRADE THEORY

R esearch related to international trade and foreign direct investment has had a long tradition and great importance in recent economic literature. According to Moscoso and Vasquez (2006:1): "Recent international trade theory suggests that countries that have a significant degree of diversification in their exports can take advantage of the insertion of technological processes in the production and the globalization of the exchange of goods".

The evidence of intra-industrial trade between economies with similar levels of development relegated traditional theories based on the concept of comparative advantage (Fontagné and Freudenberg, 1997). As is well known Ricardo (1817) proposed the general idea of comparative advantage for explaining the international trade relations generated by the differences between countries. The simultaneity of trade as regards imports and exports of the same industrial branch led to a new approach: the models of this new theory of trade, closely connected to the New Economic Geography, suggested that a reduction of trade barriers would favour the concentration and relocation of industrial centers nearby to its most important markets.

This contribution was the basis for later developments in the framework of neoclassical theory through the very known Heckscher-Ohlin model (1919) and (1933). offers a general equilibrium approach to the issues of international trade. The model can explain that countries will concentrate on exporting goods to produce their abundant resources and, at the same time, try to import those goods for the production of which resources are required that are scarce in their respective country (Kemp, 2008).

In short, the conventional Heckscher-Ohlin approaches a theory of comparative advantage in international trade according to which countries in which capital is relatively plentiful and labour relatively scarce will tend to export capital-intensive products and import labour-intensive products, while countries in which labour is relatively plentiful and capital relatively scarce will tend to export labour-intensive products and import capital-intensive products.

Ruffin (1999) mentions the following fundamental characteristics of the Heckscher–Ohlin model applied to the intra-industry trade: i) each county exports products according to its comparative advantage. For instance, China produces and exports technology products because the low prices of relevant resources in China provide a comparative advantage in producing and exporting these types of products. In contrast, Turkey mainly exports clothing products due to the lower prices of cotton and the advanced textile industry present in Turkey; ii) international trade that is based on comparative advantage will benefit some industries, at the same time hurting other sectors; iii) international trade between countries will result in price equalization.

In summary, the Heckscher-Ohlin intra-industry model establishes that "economies export the services of their abundant factors and import the services of their scarce factors" (Ruffin, 1999:4), supported in this case by the source of the provision of resources. Ordil et al. (2016) express that this theoretical corpus that revolved around the Ricardian vision of comparative advantage was, for a long time, the theoretical framework that supports a traditional explanation of international trade based on inter-industry trade flows of different products. The studies of Verdoorn (1960), Balassa (1963), and Grubel (1967), related to trade patterns in the Benelux and the European Economic Community created by the Treaty of Rome in1957, began the analysis of the exchange of commerce between goods within the same industry.

Grubel and Lloyd (1975) explained the concept of intra-industry trade as the situation: "…that describes with certainty an international trade of differentiated products, since commonly used commercial classification schemes show the simultaneous exports and imports of products belonging to the same industry. So, it represents the exchange of goods and services within, rather than between different industries". Therefore, it is important to point out that intra-industry trade (IIT) is not based on comparative advantage; all products are differentiated, and producing any particular good requires certain fixed costs (Ruffin, 1999).

Subsequently, in the 1990s, studies by Krugman (1995), Grossman, and Helpman (1990), among others, allowed for a differentiated approach to current trade patterns: inter-industry trade (trade of different products) and intra-industry trade (trade between differentiated goods of the same industry).

Figure 7 shows a good example for differentiating intra-industry and inter-industry trade structure. Then, in large markets with economies of scale, the foreign country exports some cloth, and the domestic country exports also some cloth. Although one of the countries continues to produce and export food, at present, economies of scale make it possible for two countries to produce and export both goods. Nevertheless, "The

monopolistic competition model does not predict which country firms locate, but a comparative advantage in producing the differentiated good will likely cause a country to export more of that good than it imports". (Krugmang and Obsfelt, 2016).

Figure7. Intra-industry and Inter-industry Trade Structure
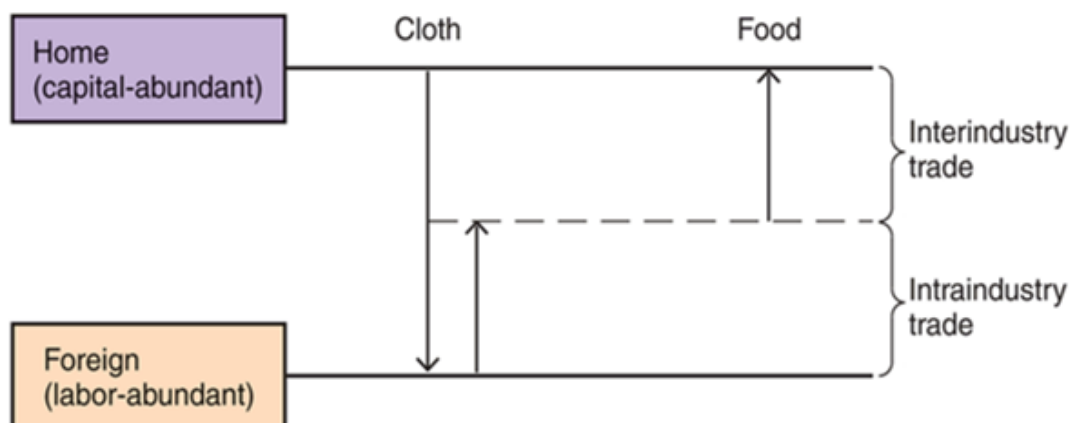
Source: Krugman and Obsfelt, 2016.

In this sense, inter-industry trade exists when two countries export and import products from different industries. On the other hand, intra-industry trade occurs when goods are exported and imported from the same industry. (Moscoso 2013, pp 56). In conclusion: "…the gains from inter-industry trade reflect comparative advantage and the profits from intra-industry commerce reflect economies of scale (lower costs) and wider consumer choices" (Krugmang and Obfelt, 2016).

Grubel and Lloyd (1975) developed a procedure for measuring intra-industry trade that is more robust than previous proposals. The Grubel and Lloyd measure of the IIT (R1) corresponds to the value of the exports of an industry, which is precisely equal to the imports of the same sector:

$$R_1 = (X_1 + M_1) - X_1 - M_1$$

Xi and Mi are the value of exports and imports of the industry in the country of origin, and i=1. The letter n corresponds to the number of sectors at a given level of aggregation. Ri is calculated as the trade of the country of origin compared to one or more sets of countries. Intra-industry trade is defined as:

$$S_1 = |X_1 - M_1|$$

According to Grubel and Lloyd (1975), it is clear that the IIT corresponds to the total value of trade (Xi + Mi) after subtracting net exports or industrial imports X1, M1, Mi. To facilitate comparisons of these

measures across different industries and countries, they use a percentage for each industry, adding exports and imports. The result of this measurement can be expressed as follows:

$$A_1 = [|X_1 + M_1| / (X_1 - M_1) * 100$$
$$B_1 = [(X_1 + M_1) - X_1 - M_1] * 100 / (X_1 + M_1)$$

The two measures values move between 0 and 100. The level of inter-industry trade is given by the value of 100 minus the value measured of intra-industry trade. When exports are precisely equal to imports, B1 is 100. When there are exports but no imports, or vice versa, the corresponding value is to 0. When exports are equal to half of the imports, or vice versa, the value will be 66,6%. That is, exports and imports of the same value are 2/3 of exports plus imports.

On the other hand, when the index is calculated individually for each industry and given level of aggregation, the measure goes in two directions. First, for a given level of aggregation, Grubel and Lloyd (1975:19-28) examined the distribution of this measure across each industry individually. Second, for the particular set of goods, they discussed the IIT measures calculated at different levels of aggregation. Thus, the B2 index measures intra-industry trade as the percentage of exports plus imports, which corresponds to the sum of intra-industry trade as a percentage of total exports and imports of n industries (Grubel and Lloyd, 1975:22).

$$B_2 = \frac{[(X_1 + M_1) - |X_1 - M_1|]}{(X + M)} * 100$$

But trade cannot be entirely intra-industry since exports cannot be 100% of imports in every industry. Then, Grubel and Lloyd (1975) suggest an imbalance correction by differentiating international trade into three categories: intra-industry (balanced by definition), inter-industry, and unbalanced. They proposed a measure for the unbalanced trade, adjusting the aggregate trade by expressing intra-industry trade as the share of the total exported products plus imports minus the trade imbalance:

$$C_1 = \frac{\sum_i^n (X_1 + M_1) - \sum_i^n |X_1 - M_1|}{\sum_i^n (X_1 + M_1) - \sum_i^n X_i - \sum_i^n M_1} * 100$$

Nevertheless, if we consider, unbalanced trade as a part of the flow of inter-industry trade, the division of trade becomes again in two categories: inter-industry and intra-industry (Fontagné and Freudenberg, 2002).

Two main critics can be made to the Grubel and Lloyd measure for the unbalanced trade. First, it may be inappropriate for practical purposes since it overestimates majority flows; and the second disadvantage arises when the same indicator measures the extension of the IIT and comparative advantages (Balassa, 1979). However, the unbalanced Grubel-Lloyd index can be considered as the most accurate measure of industrial trade flows in a free trade agreement.

4. MEASURING INTRA INDUSTRY TRADE BETWEEN SPAIN AND LATIN AMERICA

The analysis of the evolution of intra-industrial trade between Spain and Latin America have been made with the selection of 20 countries with different sizes and different relative weights in bilateral trade between the two areas. The result of the bilateral IIT was taken as the arithmetic mean of the Latin American countries.

In statistical terms, the classification usually used for this type of calculation is The Standard international trade classification (SITC), Revision 3 (1988). This United Nations (UN) classification is used for external trade statistics (export and import values and volumes of goods), allowing for international comparisons of commodities and manufactured goods. The SITC classification is divided into ten sectors of manufactured goods with a maximum disaggregation level of 6 digits[2] (See table 2)

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[2] The countries analyzed for the calculation of intra-industry trade between Spain and Latin America are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela. For the calculation of intra-industrial trade, Spain was the informant country, using the SITC classification, rev 3 to 1 sectoral disaggregation figure.

Table 2: SITC Rev. 3 commodity codes

	SITC Rev. 3 commodity codes
0	Food and live animals
1	Beverages and tobacco
2	Crude materials, inedible, except fuels
3	Mineral fuels, lubricants, and related materials
4	Animal and vegetable oils, fats, and waxes
5	Chemicals, and related products N.E.S.
6	Manufactured foods are classified chiefly by material
7	Machinery and transport equipment
8	Miscellaneous manufactured articles
9	Commodities and transactions not classified elsewhere in the SICT

Source: UN, 2022

When the intra-industry trade index proposed by Fontagné and Freudenberg (2002) for Spain and Latin America is calculated, the results show low levels of this type of trade, in 2011, the IIT was only 19.43%, reaching its highest level in 2018 (30.49%). During 2019 and 2020, the bilateral IIT diminished up to 27.56% (well explained by the start of the Covid-19 pandemic); and finally recovered in 2021, reaching 29.07% (see figure 8).

Figure 8. Intra-industry trade between Spain and Latam
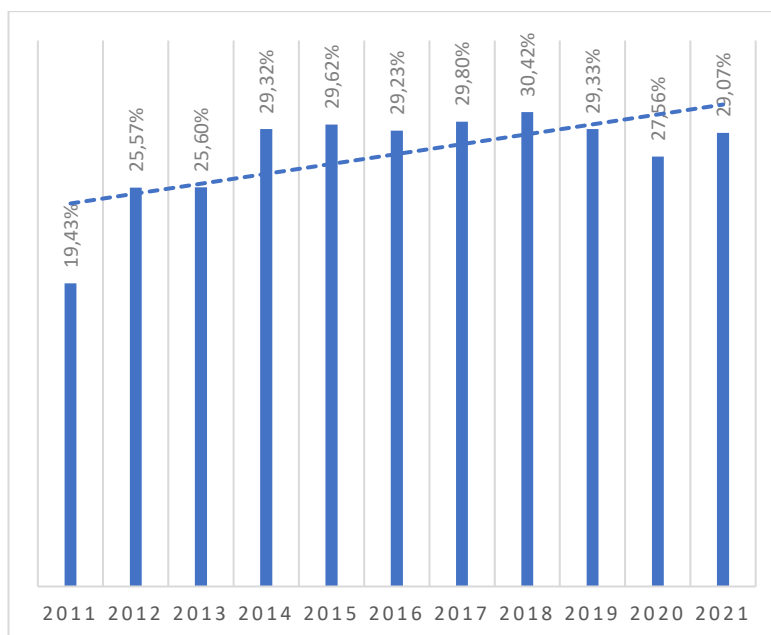
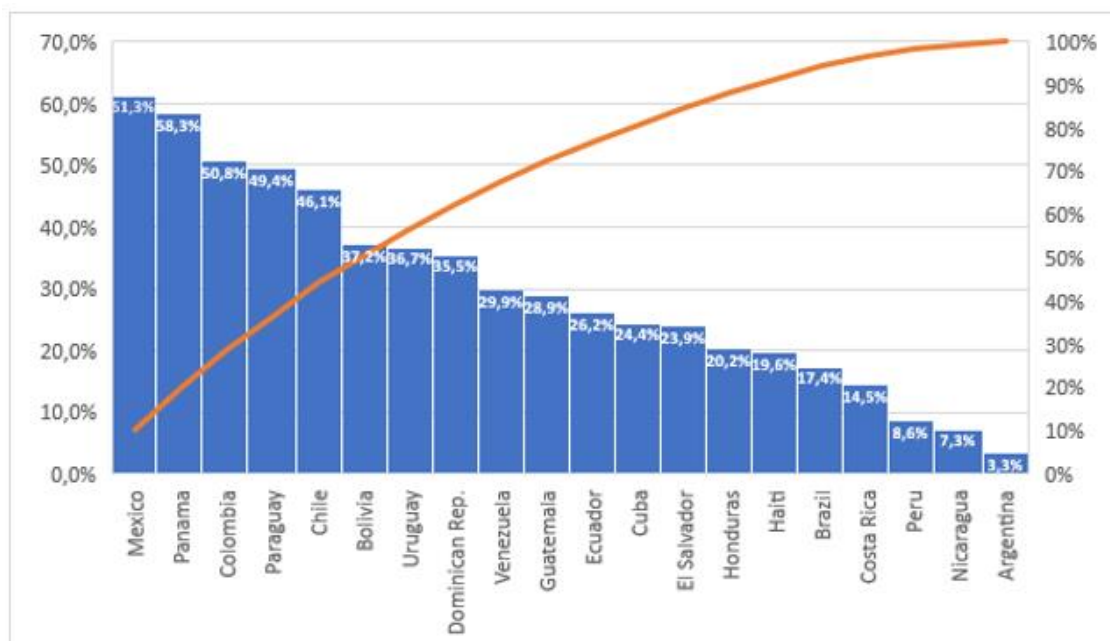**Source:** Own elaboration. Spain reporting country

At sectoral level Spain-Latin America bilateral intra-industry trade is more important in the Food and live animals' sector, which is consistent with some similarity in the export pattern of the two regions at the level of products in the manufacturing industry (see table 3). These low or insignificant levels of the IIT in bilateral trade can mean that a large part of trade at the manufacturing level between Spain and Latin America is inter-industrial. For instance, the commerce of agricultural products produced in one country with technological equipment made in another country can be classified to be an inter-industry trade". (Dudovskiy, 2022). In this sense, countries usually engage in inter-industry trade according to their competitive advantages.

Table 3. Bilateral IIT Spain–Latin America by commodity code SITC

| Commodity Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0	11,0%	14,4%	14,5%	16,7%	16,9%	16,6%	17,0%	16,9%	16,5%	15,7%	16,8%
1	0,7%	1,1%	1,0%	1,4%	1,7%	1,6%	1,9%	2,4%	1,8%	1,7%	1,8%
2	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
3	2,1%	2,7%	2,8%	2,4%	1,8%	1,9%	2,5%	3,3%	2,4%	1,7%	2,0%
4	0,3%	0,5%	0,5%	0,5%	0,7%	0,8%	0,9%	1,1%	1,1%	1,1%	1,3%
5	3,0%	3,9%	3,8%	5,0%	4,8%	5,1%	4,6%	4,1%	4,7%	4,3%	4,1%
6	0,4%	0,5%	0,5%	0,5%	0,4%	0,4%	0,4%	0,4%	0,3%	0,3%	0,3%
7	1,2%	1,6%	1,5%	1,9%	2,4%	1,9%	1,6%	1,3%	1,2%	1,4%	1,2%
8	0,6%	0,8%	0,7%	0,7%	0,7%	0,7%	0,8%	0,9%	1,1%	1,2%	1,3%
9	0,1%	0,1%	0,1%	0,2%	0,2%	0,2%	0,1%	0,1%	0,1%	0,2%	0,2%

Source: Own elaboration. Spain reporting country.

The results by countries show that a more significant presence of the intra-industry trade in some countries such as Mexico (61,3%), Panama (58,3%), Colombia (50.8%), Paraguay (49,4%), Chile (46,1%) and Bolivia (37,2%). (See figure 9). In the case of Mexico and Colombia, the essential levels of intra-industrial trade are concentrated in the Food and live animals' sector, followed by the Chemicals and related products N.E.S; and in the case of Panama, the most significant presence is again in the Food and live animals' sector.

Figure 9. Bilateral IIT Spain- Latin America 2011-2021

Source: Own elaboration. Spain reporting country.

The evolution of intra-industrial trade between Spain and six selected countries has stabilized with different growth rates in the last four years. However, the pattern of trade between Latin America and Spain continues to show signs that it is still inter-industrial. Thus, between Spain and Chile, it grew only 7.61%; in Colombia, growth was even lower, with only 2.06%; in Mexico, it reached 5.09%; in Panama, it went from 37.27% to 55.79%, and finally, in Paraguay and Uruguay bilateral intra-industrial trade increases by 13.46% and 9.55%, respectively (See graph 10). These figures show that Latin America continues on a path of exporting commodities to Spain, not significantly improving its external competitiveness.

Figure 10. Evolution of the intra-industry trade between Spain and six selected countries of Latin America (2017-2020)
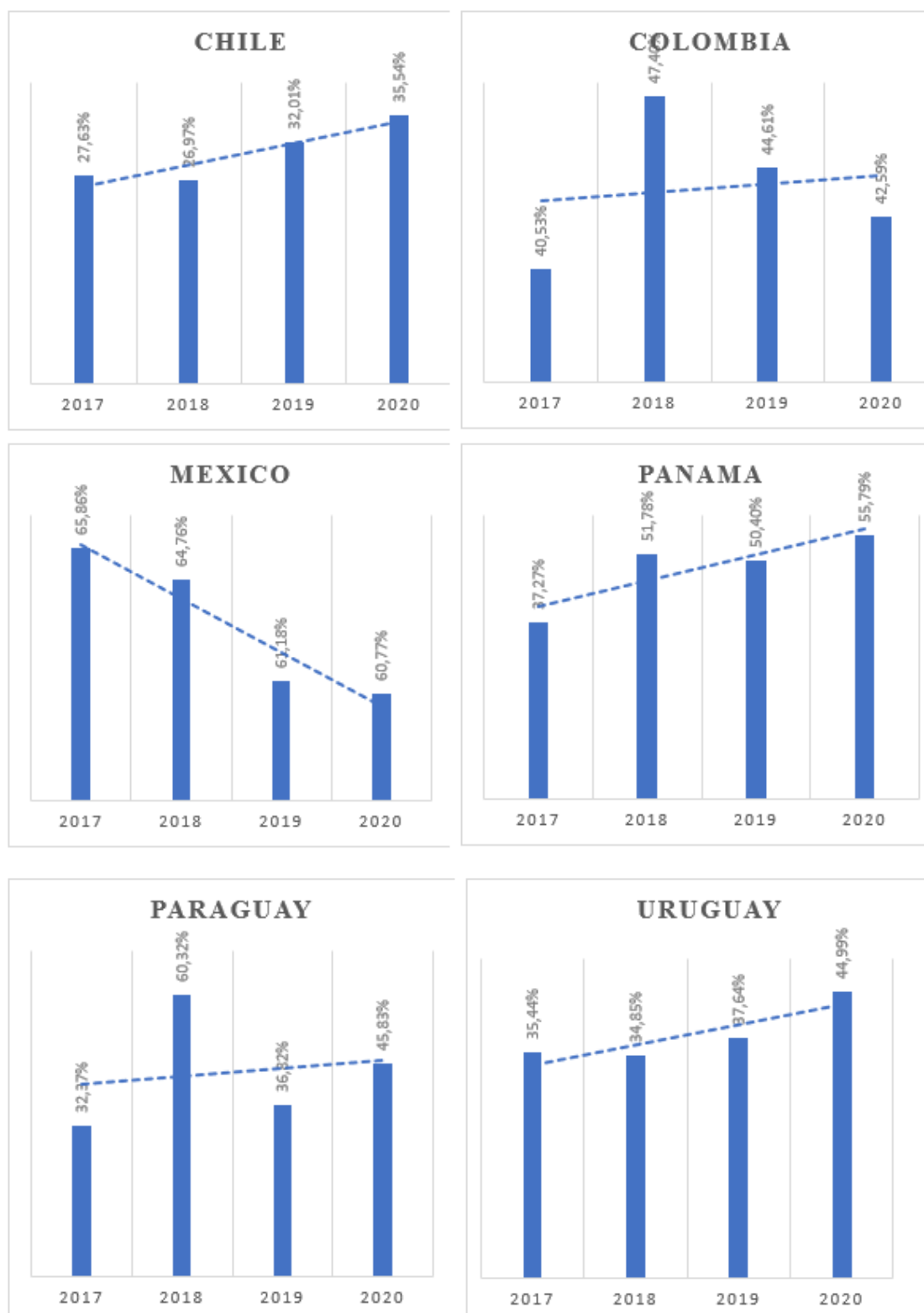
Source: Own elaboration.

5. CONCLUSIONS

There have been several changes at the global economic level that have affected a shift in the center of gravity of the world economy and the transformation of value chains. The most relevant phenomena are the COVID-19 pandemic (March 2020) and the invasion of Ukraine for Russia (February 2022).

Despite the great cultural, economic, industrial, and linguistic similarities between Spain and Latin America, bilateral trade has remained relatively low. Globally, Latin America represented only 4.4% of Spanish commerce in 2020 according to the data of State Secretary of Commerce Spain.

Trade between Spain and Latin America has stagnated in the last ten years. The trade balance is in deficit for Spain throughout the analyzed period, but bilateral trade has not grown in the previous decade. Exports from Spain to Latin America only grew 5.04% in ten years. In the case of imports from Latin America they decreased -by 16% between 2012 and 2021. Similarly, bilateral trade is highly concentrated in goods from the primary sector and sectors such as raw materials, Chemicals, and related products N.E.S.

Regarding net foreign direct investment, Spanish investment in Latin America has significantly decreased from 4.952 in 2011 to 3.130 million euros in 2021, which means a decrease of -36,8 %. In this regard, the impact of the pandemic has been notorious. The closure of business activities pushed Spanish and European investors to seek developed countries. On the other hand, the drop in FDI may be explained by fewer investment opportunities in the region and increased political risk in some Latin American countries.

When analyzing intra-industry trade flows in the two regions, the results are not significant. Only in the case of intra-industrial trade with Mexico, Panama, Colombia, Chile, Paraguay, Uruguay, and Bolivia there is a substantial presence of this type of trade (over 40%). However, intra-industrial trade with these countries is concentrated in just two industries: the Food and live animals' sectors and Chemicals and related products N.E.S.

Despite the E.U.'s trade agreements with Latin American countries, trade between the regions has remained relatively high. In the case of Spain, bilateral trade with the area is separate from a vital trading partner's primary source of investment in the region. On the contrary, China has become an increasingly important economic actor in Latin America. Finally, the low presence of intra-industrial trade between Spain and Latin

America means that bilateral trade is based on the relations of the comparative advantages of production rather than on the competitive advantages and product differentiation for the Latin American countries. Bilateral ITT calculations have shown this. The average IIT between Spain and Latin America was only 29.97% (not significant) in 2021, and only five countries in the region had significant industrial trade with Spain: Mexico, Panama, Colombia, Paraguay and Chile.

REFERENCES

BALASSA B (1963) AN EMPIRICAL DEMONSTRATION OF CLASSICAL COMPARATIVE COST THEORY, THE REVIEW OF ECONOMICS AND STATISTICS, VOL. 45, NO. 3 (AUG., 1963), PP. 231-238 (8 PAGES), PUBLISHED BY: THE MIT PRESS

EUROPEAN PARLAMENT (2016). EU TRADE RELATIONS WITH LATIN AMERICA: RESULTS AND CHALLENGES IN IMPLEMENTING THE EU-COLOMBIA/PERU TRADE AGREEMENT, STUDY. DIRECTORATE-GENERAL FOR EXTERNAL POLICIES POLICY DEPARTMENT, FEBRUARY 2016-PE 534.992.

FAZIO VENGOA. H. (2000). "AMÉRICA LATINA EN LA POLÍTICA EXTERIOR DE ESPAÑA". HISTORIA CRÍTICA, 20: 40-66. HTTPS://REVISTAS.UNIANDES.EDU.CO/DOI/10.7440/HISTCRIT20.2000.02.

FONTAGNÉ, L. Y M. FREUDENBERG. (1997). "INTRA-INDUSTRY TRADE METHODOLOGICAL ISSUES, RECONSIDERED", WORKING PAPER 01 CEPII.

FONTAGNÉ, L.; M. FREUDENBERG Y N. PÉRIDY. (1997). "TRADE PATTERNS INSIDE THE SINGLE MARKET", WORK PAPER 07, CEPII.

FONTAGNÉ, L. AND M. FREUDENBERG (2002), "LONG-TERM TRENDS IN INTRA-INDUSTRY TRADE", CHAPTER 8 IN FRONTIERS OF RESEARCH ON INTRA INDUSTRY TRADE, H. GRUBEL AND H.-H. LEE (ED.), PALGRAVE, LONDON.

HECKSCHER, E.; OHLIN, B (1991) TRADE THEORY, MIT PRESS.

HELPMAN G (1990) COMPARATIVE ADVANTAGE AND LONG-RUN GROWTH, AMERICAN ECONOMIC REVIEW, 1990, VOL. 80, ISSUE 4, 796-815.

JOHNSON, D & TURNER, C, (2009). INTERNATIONAL BUSINESS: THEMES AND ISSUES IN THE MODERN GLOBAL ECONOMY, TAYLOR & FRANCIS. L

KEMP, MC. (2008). INTERNATIONAL TRADE THEORY: A CRITICAL REVIEW, ROUTLEDGE

KRUGMAN P. (1995) GROWING WORLD TRADE: CAUSES AND CONSEQUENCES, BROOKINGS PAPERS ON ECONOMIC ACTIVITY, 1995, VOL. 26, ISSUE 1, 25TH ANNIVERSARY ISSUE, 327-377.

KRUGMANG P AND OBSFELT M. (2016). INTERNATIONAL TRADE THEORY AND POLICY, GLOBAL EDITION, PEARSON.

GONZALES I., PÉREZ P (2021). TRES DÉCADAS DE RELACIONES ENTRE AMÉRICA LATINA Y ESPAÑA (1990-2020): SÍNTESIS DE LAS FORTALEZAS Y DEBILIDADES GENERADAS. PROPUESTAS DE ACCIÓN A FUTURO. ARAUCARIA. REVISTA

IBEROAMERICANA DE FILOSOFÍA, POLÍTICA, HUMANIDADES Y RELACIONES INTERNACIONALES, AÑO 23, Nº 47. SEGUNDO CUATRIMESTRE DE 2021. PP. 529-560.

GONZÁLEZ, J.G. AND A. VÉLEZ (1993). "AN EMPIRICAL ESTIMATION OF THE LEVEL OF INTRA-INDUSTRY TRADE BETWEEN MEXICO AND THE UNITED STATES", IN K. FATEMI, ED., NORTH AMERICAN FREE TRADE AGREEMENT: OPPORTUNITIES AND CHALLENGES, LONDON: MACMILLAN, 161-172.

GONZALEZ, J.G. AND A. VELEZ (1995). "INTRA-INDUSTRY TRADE BETWEEN THE UNITED STATES AND THE MAJOR LATIN AMERICAN COUNTRIES: MEASUREMENT AND IMPLICATIONS FOR FREE TRADE IN THE AMERICAS", THE INTERNATIONAL TRADE JOURNAL, 9(4), 519-536.

GRUBEL, H.G. AND LLOYD, P.J. (1975): "INTRA-INDUSTRY TRADE", IN *THE THEORY AND MEASUREMENTS OF INTERNATIONAL TRADE IN DIFFERENCIATE PRODUCTS,* MC MILLAN PRESS, LONDON.

LATORRE M, YONEZAWA H, OLEKSEYUK Z (2021) EL IMPACTO ECONÓMICO DEL ACUERDO UNIÓN EUROPEA MERCOSUR EN ESPAÑA 8 DE SEPTIEMBRE, 2021

MANCHA T, MOSCOSO F, SANTOS J.L. (2016) LA DIFÍCIL MEDICIÓN DEL CONCEPTO DE COMPETITIVIDAD ¿QUÉ FACTORES AFECTAN A LA COMPETITIVIDAD REGIONAL? SERIE DOCUMENTOS DE TRABAJO. IAES, UNIVERSIDAD ALCALÁ DE HENARES.

MOSCOSO F (2013) COLOMBIA EN EL GRUPO DE LOS TRES. UN ANÁLISIS COMPARATIVO DE LAS RELACIONES COMERCIALES ENTRE COLOMBIA, MÉXICO Y VENEZUELA (1994- 2004), EDICIONES EAN, 2013.

OECD (1992): OECD PROGRAM ON TECHNOLOGY AND ECONOMIC GROWTH. PARIS.

RICARDO, D. (2004). THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION, (FIRST PUBLISHED 1817) UK: DOVER PUBLICATIONS.

RODIL O, SÁNCHEZ M, LÓPEZ J, ARRAZOLA E (2016). PROGRESS IN THE PATTERN OF INTRA-INDUSTRIAL TRADE BETWEEN THE EUROPEAN UNION AND LATIN AMERICA: THE CASES OF BRAZIL AND MEXICO, EU-LAC FOUNDATION, 2016.

RUFFIN, R. 1999. THE NATURE AND SIGNIFICANCE OF INTRA-INDUSTRY TRADE, DALLAS, FEDERAL RESERVE BANK.

SECRETARIAT OF STATE OF COMMERCE SPAIN (2019). RELACIONES BILATERALES ESPAÑA – LATINOAMÉRICA Y CARIBE, SECRETARÍA GENERAL TÉCNICA, SUBDIRECCIÓN GENERAL DE DESARROLLO NORMATIVO, INFORMES Y PUBLICACIONES. CENTRO DE PUBLICACIONES.

VERDOORN, P.J. (1960) THE INTRA-BLOCK TRADE OF BENELUX. IN: ROBINSON, E.A.G., ED., ECONOMIC CONSEQUENCES OF THE SIZE OF NATIONS, MACMILLAN & CO., LONDON, 291-332.

UNITED NATIONS (2023) INTERNATIONAL FAMILY OF CLASSIFICATIONS, HTTPS://UNSTATS.UN.ORG/UNSD/CLASSIFICATIONS/FAMILY/DETAIL/14.

WEB RESOURCES:
HTTPS://WWW.INVESTINSPAIN.ORG/CONTENT/ICEX-INVEST/ES/NOTICIAS-MAIN/2021/ESPANA-GLOBAL-LATAM-2020.HTML

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