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亞洲投資對於拉丁美洲的經濟成長

The Impact of Asian Investment on the Economic Growth of Latin America

Student: Carlos Eduardo Martinez Molina

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研究生： 艾德多　Student: Carlos Eduardo Martinez Molina

指導教授： 吳文傑博士　Advisor: Dr. Wen-Chieh Wu

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Abstract

The present research is composed around a quantitative study of foreign direct investments made from Asia in Latin America, produced by econometric tools, which analyzes 13 countries in the region through 14 years, the econometric models used are OLS, Fixed Effect Oneway, Fixed Effect two-way, random effect, the data has been obtained through national banks and government institutions.

Taiwan, South Korea, Japan, China and the Rest of Asia were chosen as actors within the analysis unit belonging to the Asian countries that have contributed the most to the investment flow, with data mostly coming from these countries. The sample also includes results that reflect the gains in investments that have been made, for example, investment trends are concentrated in three main aspects clearly, in North America, the automotive industry, Central America, agricultural products, and South America, the extraction of resources, producing significantly economic growth. in gross domestic product.

Finally, the case of Taiwan is widely significant, however, the data that has been found is only from 3 countries, it was decided to add it to the investigation despite the reduced information, to contrast and contribute to the discussion of results. We can conclude that foreign direct investment is really importart for the economic growth in Latin America, the regions are not significant level in our empirical analysis, and among the Asian countries like Korea and Taiwan have positive impact, China negative and significante and Japan it doesn't have significante impact, most of them because covers difference approaches and ways to invest on the region.

Key words

Asian Investment, Economic Growth, Panel Data, Latin America Productions, Clusters.

摘要

本研究圍繞亞洲在拉丁美洲的外國直接投資進行定量研究，使用計量經濟學工具進行分析，分析了該地區 13 個國家過去 14 年的情況，使用的計量經濟學模型包括 OLS、單向固定效應、二向固定效應-方式，隨機效應，數據是通過國家銀行和政府機構獲得的。

台灣、韓國、日本、中國和亞洲其他地區被選為對投資流貢獻最大的亞洲國家的分析單位，數據主要來自這些國家。樣本還包括反映已進行的投資收益的結果，例如，投資趨勢明顯集中在三個主要方面，北美的汽車工業、中美洲的農產品和南美洲的開採資源豐富，經濟增長顯著。在國內生產總值中。

最後，台灣的案例意義重大，但查到的數據只有 3 個國家，儘管信息減少，還是決定將其納入調查，以對比和有助於結果的討論。我們可以得出結論，外國直接投資對於拉丁美洲的經濟增長確實很重要，但在我們的實證分析中，該地區的影響並不顯著，並且在亞洲國家中，如韓國和台灣，有積極的影響，中國為負面影響，日本則不顯著。不會產生重大影響，其中大部分是因為涵蓋了對該地區投資的不同方法和方式。

關鍵詞

亞洲投資、經濟增長、面板數據、拉丁美洲生產、集群。

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Chapter 1
Introduction

1.1. Motivation

The present work of degree tries to carry out an empirical analysis of the results of direct foreign investments from Asia in Latin America, through econometric tools, this phenomenon is increasing, publishing more articles and studies, emphasizing both areas of the world.

Our questions that have arisen to carry out the study are the following: How much Latin America has grown economically in its gross domestic product from foreign direct investment from Asia Pacific in the last decade? With this we can also ask the following questions, how much has the economic growth benefited in the increase in the domestic product around the foreign direct investments that comes to Latin America from Asia Pacific? In which sectors and products have Asian investments been made? What is the trend that is projected for the next few years?

In addition to this, some objectives pursued by the work have also been emphasized, including: Elaborate a macroeconomic study to corroborate the increase in economic growth of Latin American countries from foreign direct investment from Asia Pacific. In addition to Elaborate a macroeconomic analysis of the region through the entry of foreign direct investment from Asia Pacific, provide a broad overview of the comparative advantages between products from Latin America and Asia Pacific that they have through trade and investment, establish a roadmap for future political proposals to attract greater investment from Asia Pacific to Latin America.

Recently the issue of foreign direct investment has gained popularity among different academic areas, this phenomenon has led several actors to make investments from one place to another, some countries have gained relevance among them, the Asian bloc has staged a massively positive update towards and rest of the world, and in a special way towards the American continent, especially Latin America, in the Spanish-speaking countries.

Currently, trade makes wealth possible, today there are points of development that a couple of decades ago it seemed that this development was not possible, today we have cases and contexts in which some countries in the world have developed in an exhilarating way, allowing progress in several issues, thanks to the policies that have been established but also thanks to those synergies that have contributed, therefore, it has been chosen to carry out an analysis between America and Asia, choosing a sample of countries that speak to us about this development, communication and cooperation that has been existing.

According to some world bank sources, in their latest report carried out during 2022 they have made some forecasts that have indicated the growth of the Gross Domestic Product (GDP) according to the results of their economic performance, the results that can be viewed are the following tables:

Table 1

GDP Prediction on the next years by regions.

	2022	2023	2024
All the World.	3.4	2.9	3.1
United States of America	2.0	1.4	1.0
Euro zone	3.5	0.7	1.6
Middle East and central Asia	5.3	3.2	3.7
North and South east Asian	4.3	5.3	5.2
Latin America and the Caribbean	3.9	1.8	2.1
África	3.8	3.8	4.1

Source World Bank 2022 Report.

Table 2

GDP Prediction next on the next years by some countries.

	2022	2023	2024
GDP in the world	3.4	2.9	3.1
Advanced Economies	2.7	1.2	1.4

United States of America	2.0	1.4	1.0
Euro zone	3.5	0.7	1.6
Germany	1.9	0.1	1.4
France	5.2	1.1	2.4
Japan.	1.4	1.8	0.9
United Kingdom	4.1	-0.6	0.9
Canada	3.5	1.5	1.5
Others Advanced Economies	2.8	2.0	2.4
Economies in process and emerged	3.9	4.0	4.2
Economias in process and emerged in Asia	4.3	5.3	5.2
China	3.0	5.2	4.5
India	6.8	6.1	6.8
Europe's emerging and developing economies	0.7	1.5	2.6
Latin America and the Caribbean.	3.9	1.8	2.1
Brasil	3.1	1.2	1.5
Mexico	3.1	1.7	1.6
Middle East and Central Asia	5.3	3.2	3.7
Saudi Arabia	8.7	2.6	3.4
Africa	3.8	3.8	4.1
Nigeria	3.0	3.2	2.9
South Africa	2.6	1.2	1.3
Low-income developing countries	4.9	4.9	5.6

Source World Bank 2022 Report.

1.2. Purpose

The work has been used is divided between qualitative and quantitative area, in the qualitative part a wide variety of literature, reports, reports and recent data on foreign direct investment is consulted, and its positive impact on economic growth in the region. Regarding the quantitative part, it was covered by means of econometric tools, the Panel Data tool was used as a statistical method to measure the variables and temporality, among them the 13 countries that have been chosen are Guatemala, Honduras, Mexico , Panama, Costa Rica, Peru, Colombia, Argentina, Brazil, Chile, Ecuador, Bolivia, Uruguay, for this the selection criteria was that the countries presented recent data through their monetary and financial institutions, which made it easier for us to compile the data and pass them to the regressions made, during the selected period of time composed from the years 2008 to 2021.

Among the limits of the research, it should be noted that the presence of Asian countries in Latin America is still minimal in comparison with countries such as the United States or Europe, however, recently a preliminary view of Asian countries has begun, providing more and more academic papers on various phenomena, In Panel Data, it was composed by means of four models including OLS, Fixed Effect one Way, Fixed Effect two ways, Random Effect, basic models that allow us to understand the phenomena through of the data thrown.

1.3. Framework

The first chapter is made up of the introductory section, which defines the motivation, purpose and framework, in the second chapter the bibliography consulted to carry out the literature review will be reported, it is made up of three sections, the first talks about the theory of foreign direct investment through the following theorists such as Johnson (2012), Barrientos (2010) covering the importance of investment dynamics to provide a greater rapprochement between countries and nations, the second part of the literature review will analyze globalization through theorists, such as Porter (1990), Morasvick (1997) covering, visions on the institutional dynamics of the benefits, finally an exhaustive review of academic articles related to economics was also made to support our empirical work based on the results obtained.

The third chapter covers the economic background of the Latin American region, among them it speaks first of the history of economic growth since 1950, where the region was only prosperous as a result of an industrial stage of production, however, this many analysts agree since this stage the continent closed its productions that could no longer develop quickly, in this section the facts that produced such an effect will be reviewed in detail, and secondly, the economic performance of the different countries of Latin America, as indicated, Mexico its industrial potential for

Through the investments reside in the manufacturing of automotive and machinery companies, Central America stands out for agriculture, including bananas, corn, coffee, sugar, among other products, and South America stands out for natural resources and raw materials, These products are clearly important for the production of technology and export to the Asian continent.

The fourth chapter describes the investments made from Asia in Latin America, from two perspectives, the first relates to which area the investments are directed, that is, the sectors and the second is oriented towards the economic flow, data that allows us to understand the economic evolution of the investments made, those investments could be pointed out as relatively stable, and the most notorious is China that its investments are increasing each time and it becomes very remarkable, this chapter is also accompanied by graphs obtained by the data that was subtracted.

In the fifth chapter, an empirical analysis is carried out, the Panel Data method is defined, which allows us to visualize the number of samples that were made from the data obtained, then the model that has been made, that is. The formula that has allowed us to build our object of study and define the variables and sources from which the data have been obtained, purely as a result of government institutions presented and the chosen temporality, based on one million dollars.

In the sixth chapter, the estimates and results of the empirical analysis are detailed, obtained through econometric tools, including descriptive statistics, correlation results and regression results, these results have yielded data that allows us to previously understand the results of the investments made, and the numbers obtained, providing mostly positive findings in the variables that we wish to analyze, in this case the positive result caused by foreign direct investment towards the economic growth of the selected countries, so not all cases are like this, but they support growth economic, and these data become relatively significant when comparing.

Finally, the conclusions are made, which ends up giving us a concrete vision of the economic evolution, allowing us to give an overview of the research object in which we want to arrive, placing the references and contributing theoretically to what continues with the work.

Chapter 2
Literature Review

In the second chapter reference is made to the literature review, firstly the theory of globalization contrasting basic approaches of Moravscik (1997) with other authors who argue the ideas and benefits of it, then briefly some basic postulates about foreign investment. direct, and finally some academic and empirical papers that talk about the dynamics of our study object.

2.1. Globalization Theory

Globalization in institutional strengthening is the communication between governments facilitating the dynamics of the investments of some actors towards others, allowing governments to interact with each other, this consists of interactions between agents, this modality allows through negotiations between agents, said political activity assumes the interaction between States to coordinate mutual strategies.

The practices of globalization contribute to the construction of alliances and consensus among States, among them, Moravscik (1997)[1] calls the effect of multilateralism as international governance, which provides global governance, Caporaso (1992)[2] defines globalization "as the idea in an architectural formation in the organization of the actors of the regional sphere, that determines the behaviors and the mechanisms of reciprocity" (Caporaso 1992), this same thing is conformed through habits, ideas, practices and international norms that provide an alternative within the region.

In this same way, Keohane (1983)[3] argues that globalization precedes as a practice for the coordination of national interests, among a group of three or more States, which elaborates

[1]Moravcsik. A. (1997). Taking Preferences Seriously: A Liberal Theory of International Politics. International Organization 51 (4). (P.513-553).
2 Caporaso, J. (1992) International relations theory and multilateralism: the search for foundations. Massachusetts Institute of Technology, International organization, No. 46. (p. 601 – 602)
3 Keohane, R. (1983). After Hegemony. Cooperation and Discord in the world political Economy, Princenton: Princenton University Pres

principles of reciprocity, where the organisms have such coordination and economic transaction as their function, for the formulation of bases for the generation of diverse lines of action, in particular with the tools of mutual policy elaboration.

Globalization also contributes understanding towards the elaboration of agendas, for this Moravscik (1998) categorizes multilateralism as an opportunity for participation in the management of international politics, which allows solving global and highly complex problems, and at the same time provides a regional governance policy.

It demonstrates how a counterbalancing scenario is elaborated to the established decisions, with a game of multiple interests from one actor to another. For this reason, Kissinger (1964)[4] argues that this intergovernmental practice must be carried out based on the election, voting and elaboration of consensus to put together strategies, especially with the results that are generated by the treaties and the summits carried out.

The dynamics of globalization have been presented as a challenge for the FDI, since it consists in the follow-up and monitoring of the actions of the agents, according to Moravscik (1993) this mechanism contributes to the construction of consensus, which in turn allows the guidelines, and provides for the full participation of the various actors including States and individual agents.

The governments that resort to the practices of globalization the most are those that try to fix problems and develop a strategy of greater investment attraction in relation to increasing their political and economic power, Caporaso (1992) would point out that multilateralism also consists of the discussion and the persuasion it brings to policy formulation, coordination, and communication among stakeholders. With this, Gilpin (1981)[5] determines that the new multilateralism in globalization maintains the capacity to promote a network in the horizontal relations of the States, which are involved in the formulation of these mechanisms, through agendas through communication and participation between states.

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[4] Kissinger, H. (1964). A World Restored: The Politics of Conservatism in the Revolutionary Age. Nueva York: M. E. Sharpe.

[5] Gilpin. R. (1981). War and Change in international Politics. Cambridge University Press.

2.2. Foreign Direct Investment Theory

The investments studied from the economic field according to the author Porter (1990)[6] this consist of the sale of goods and products, from one place to another, with the expectation of positive profits, whether for an individual actor, an association or a company, the investments have been managed from different logics. , the most common is the execution with positive profits FDI emanate from one country to another, since the mid-80s, this economic activity became popular since they were carried out from western countries led by the United States in a North-North, North-South, South-South logic, allowing some countries to have increased their GDP per capita by granting various companies to transfer capital and products to obtain positive profits.

Based on the North-South logic, the Atlmann. (2012)[7] expresses the results of the models that have been designed, especially the direct investments that have been made towards the region in Asia, it could be indicated that they have directly affected economic growth, as could be noted, the presence of other key players in the region, such as the case of the United States, Canada or the investments that come from Europe in their entirety, granting a direct impact on their increase.

According to the author's Alfaro. L, & M. Johnson (2012) this can help to imitate and perfect production techniques, placing much more innovative products on the market. and competent towards the international market[8] the proportions in macroeconomics show us that in order to obtain economic stability, investments stimulate domestic markets and allow products to enter and position themselves in the international market.

These processes are dynamic and allow us to see the edge and the levels of certainty, especially for markets and structures, for example, the effect that culture can have when making an investment, taking into account external factors that obviously entail a low and consistent cost of

[6] Porter, M. (1990): The Competitive Advantage of Nations, Free Press. New York.
[7] Altmann, J. (2012). Latin America, the ways of regional integration. Costa Rica. Flacso.
[8] Alfaro, L & M. Johnson (2012), "Foreign Direct Investment and Growth" G Caprio (ed), The Evidence and Impact of Financial Globalization, Elsevier.

transactions, some authors point out Alfaro. L, & M. Johnson (2012) that this dynamic is what allows the creation of wealth and competitive advantages.

This globalization trend has contributed to creating a flow of investments in the world, in the last three decades, an increase of 3,440% is reported from the United Nations Conference on Trade and Development in 2019[9], while as of 2010 this amount has increased registered with more than US$ 2 trillion, which is important, however, Asia is the main destination of foreign direct investment, which are developed economies and some in transition, otherwise Latin America is being reduced and letting these opportunities pass and concentrating only on countries such as Mexico, Brazil, Chile, Argentina, and Colombia.

This same UNCTAD report indicates that after the last 5 years, investments throughout the world increased again, around 13%, due to the crisis of the COVID 19 Pandemic, however, the most interesting thing is that part of these investments originate from Asia, especially led by China at a regional, continental and intercontinental level, for rational reasons, this investigation will focus on the block of countries that make investments from one region to another, on the other hand there are also It should be noted that the Asia Pacific region is beginning to target 5% investment, in the case of the countries that make up ASEAN[10].

One of the paradigms that allow us to conceptualize this methodological framework, according to some authors, Barrientos, S & Rossi, A. (2011),[11] on the variants that contribute to the characterization between competitiveness and the resulting frameworks is through globalization, observing the investments that are being made from Asia, for this, the investments made by these economic movements, they look the following points 1) the resources that are given clearly in direct investments, 2) the size of the market, especially the introduction of various companies and their origin, including the facilities they obtain in an aggregate sense. 3) the efficiency with which a portfolio has been designed, and has been allowing the technical progress of the operations, 4)

[9] UNCTAD. (2019). "World Investment Report 2019: Special Economic Zones". Geneva: United Nations.
[10] UNCTAD. (2022). "World Investment Report 2022: International Tax Reforms and sustainable investment". Geneva. United Nations.
[11] Barrientos, S., Gereffi, G., Rossi, A. (2011) Economic and Social Upgrading in the global Production Networks: A New Paradigm for a Changing World. International Labour Review, 150 (3-4).

the strategies in the assets that are held in the market, for this purpose the investments are aimed at economic gain.

Based on the behavior models, the business and investment hypothesis could be compromised with microeconomic dynamics, which is also aligned with an eclectic paradigm, which countries must have these internationalization mechanisms, which project the development of skills and competencies to handle a variety of variables and international markets, according to these lines, the stocks will be positive, according to the variables in this case, before determining before this cyclical business model.

A rise in the sphere of the well-known neoliberalism[12], driven mainly by Western countries, especially the United States of America, however, in some regions these policies allowed a highly competitive and successful development, and in other regions these advances were not achieved. Moreover, it is possible to do the processes that in Latin America through a report carried out by the OECD during 2015[13]

2.3 Empirical papers on the impact on economic growth in Asia or Latin America

In fact, there is still no consensus among researchers and economists the nature of the relationship between FDI and economic growth. According to the literature, it seems that econometric techniques, model specifcations, and specifc characteristics of Each country or region tends to significantly influence the empirical results on the subject.

The main strand of the literature on economic growth and FDI points that some scenarios are positive affects FDI inflows by conditioning FDI location decisions, creating an favorable environment for multinational enterprises, Moreover, According to the author's Alfaro. L, & M. Johnson (2012) mentions that FDI can help to imitate and perfect production techniques, placing much more innovative products on the market. and competent towards the international market[14]

[12] Idem.
[13] OECD. (2015). Participation in Global Value Chains in Latin America – Implications for Trade and Trade-Related Policy Preliminary Draft.
[14] Alfaro, L & M. Johnson (2012), "Foreign Direct Investment and Growth" G Caprio (ed), The Evidence and Impact of Financial Globalization, Elsevier.

the proportions in macroeconomics show us that in order to obtain economic stability, investments stimulate domestic markets and allow products to enter and position themselves in the international market[15]. Higher conditions in human capital, infrastructure education level, transparency and other variables that we use for control the economic growth serve to call the money and attract FDI, hence acting as a mechanism for regulation and increasing the efficiency of multinational firms, The empirical literature provides mixed evidence about the effects doing more business and attract on FDI attractiveness[16].

Since the results have been reported and detailed according to the tabulation made, it allows us to understand the direct effect of the investments, therefore the results are significant at the time of carrying out this analysis, below we will continue detailing the data with the graphs the context of the same investments and variation by means of tables, according to some authors Fernández-Nuñez &, Maesso & Márquez. (2017) which indicates that the investments, although they have little impact, are on their way to represent the maximum boom[17]. also, some others theorists mention like Fitz Gerald, E.V.K. y R. Vos (1989) following the organizational learning theory, this experiential learning might serve foreign investors as a guide for their behavior there is a probability that the investments have been and, therefore, have also sought access to larger markets, as has been said[18].

Therefore, the investment response of the Asian countries in Latin America, as has been mentioned, is very small, however, throughout these years as mentions Dixit, A.K. y R.S. Pindyck (1994) it has become much more significant, such is the case when corroborating the graphs, in the econometric analysis. These numbers are seen increasing until now at the moment of carrying out a comparative analysis between both sites, contribute positively to economic growth, on the other strategies for the implementation of intelligent attraction of investments must also be redefined.[19]

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[15] Faeth, I. Determinants of Foreign Direct Investment: A Tale of Nine theoretical models. *J. Econ. Surv.* **2009**, *23*, 165–196

[16] United Nations (2017). Foreign Direct Investment and Sustainable Development in International Investment Governance. In *Investment and Innovation*; United Nations: New York, NY, USA.

[17] Fernández-Nuñez, T.; Maesso, M.; Márquez, M.A. (2017) The role of Imported Inputs and FDI on Economic Growth: Evidence from Emerging and Advanced Economies. *Rev. Econ. Mund.*

[18] FitzGerald, E.V.K. y R. Vos (1989): Financing economic development: a structural approach to monetary policy, Aldershot, Gower

[19] Dixit, A.K. y R.S. Pindyck (1994): Investment under uncertainty, Princeton, Princeton University Press.

Chapter 3
Economic growth in Latin America

In the third chapter we will start from two visions, the first will refer to the historical model of economic development, encompassed by the waves of development, which several theorists have agreed on, in addition to this, it reflects a broad scenario of the situation, and in the second part, reference will be made to the economic performance of the countries of the region, and the sectors towards which their economy is oriented.

3.1. Historic models for economic growth

On the other hand, the countries of Latin America have fallen into a model of conformism, due to the processes of not being able to develop manufacturing industries, in addition to being cheap labor, which, the model of extraction of natural resources, generating a stagnation in the model productive, for this very reason, it has been called with serious setbacks, except for the cases of Brazil, Argentina, Chile, despite a short period of time, they fall back into this same trend.

According to some data from CEPAL records, they indicate that the setback generated great economic losses, which, the lack of strategies and policies that allow vision, and the progress in the "renewal" process have caused Latin American countries to fall in the null part of innovation, as part of the historical background, in addition to this, the exogenous variables are added that have made this slowdown more important since the crisis in 2008, and that the drag effect lasts in the case of Latin America.

Asia is diverse, but at the same time it is complementary. The Asian economy is defined as an economy of scale, economic development, Interaction between the same continent, Interconnected with the world. The similar situation, Chile is successful, because it has a very small market. Even Asia is family control. Its executives have managers from the best universities. Global Latinas appear in the late 80s and early 90s.

A very similar case that some authors Pincus, J. & Palma, J. (2022) argues than consists of a contrast with a huge difference between Mexico and Vietnam, assembly companies were established for manufacturing companies,[20] which could be a comparison study, the first one due to its proximity to the United States, and the second with China, it is mentioned that the productivity of the countries that represent high levels of GDP and productivity that are Mexico, Brazil and Argentina, could get to do the same, that in the 80s, some authors do it in mention like a middle income trap.

Currently the region is in various integration processes in a much more economic environment, on the one hand there is Central American integration covering 6 countries (Guatemala, Honduras, El Salvador, Nicaragua, Panama, Belize and Costa Rica) on the other hand there is UNASUR (Argentina, Bolivia, Brazil Chile, Colombia, Ecuador, Guyana, Paraguay Peru, Suriname, Uruguay and Venezuela) MERCOSUR (Argentina, Brazil, Paraguay, Uruguay, Venezuela and Bolivia) NAFTA (Mexico, Canada, United States of America) and CELAC, which currently groups the 33 countries of Latin America and the Caribbean, has recently created a space for association with countries of South East Asia called APEC[21], which has also been a platform to promote the entire development model within the Pacific Ocean side.

It is worth mentioning that there are deformations in the Latin American market, which does not allow the development of companies, and in turn a somewhat unbalanced policy, as indicated by a connotation in CEPAL reports, China is the country that imports nuts with shell, iron but no Brazilian steel, Argentine soybeans, unrefined Venezuelan oil and on top of that copper concentrate, which the governments basically allow them to do, without getting anything in return, which is a waste. monetary policy for the region, with this added to the contamination of maritime transport, some advantage could be obtained in reference to what has been mentioned.

[20] Pincus, J. & Palma, J. (2022). Latin America and Southeast Asia. Two development models but the same "middle income trap": Easy rents lead to indolent elites. EL Trimestre Economico, Vol. LXXXIX (2.) Santiago, Chile.
[21] The main countries in the organization are: Australia, Brunei Darussalam, Canada, Korea, Chile, China, United States of America, Filipins, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papa New Guinea, Peru, Russia, Singapur, Taiwan, Thailand and Vietnam.

Many of the experiences in Latin America, in relation, especially to countries that presented different economic growth, is the effort to increase productivity or open the country to attract immigration and fill "the cheap labor market"[22] according to the authors this concept was used mostly by Chile, Argentina and Brazil, which this trap argues the creation of jobs with low wages, mostly in the areas of services and construction.

Some of these investments are approached in the following ways in terms of machinery, networks, chemical services, and electronic producers and telecommunications, which these products are highly attractive for the Latin American region, and that could visualize these results at the time of finding suppliers that facilitate relationships therefore remain under negotiation with a view to expanding these opportunities.

3.2. Economic Performance in different Latin American Countries

The Latin American region in recent years its development has been marked by slow progress, here reference is made to the economic processes that some countries experienced successfully and some others that did not succeed, however, the most interesting thing within this phenomenon, has been the analysis within a form and regional block in its entirety, while in the 90s East Asia was developing in an accelerated way, on the other hand, the Latin American region stopped its pace, due to political instability and little investment received from abroad failed to develop at a high level.

There is a vast and coarse literature that explains the characteristics of both, however, mention will be made of some that allow a much more rigorous and detailed conception that will later allow the analysis of the data to be presented, about the evolution by regions, some cases demarcate similarities and in others distinctions, Latin America can be defined as some authors have mentioned various waves of transformations, There are some debates about whether there have been three, four or even five waves of economic transformation, however, we share the idea of the following author, who rightly comments that in general four waves of transformation could be indicated, one linked to the other for its The first understanding refers to the colonial era, the

[22] Idem.

second to the stage of the agro-export model, the third to import substitution, and the most recent was the liberalization era.

In the colonial model that was dominated for around 200 years, the countries conquered by the Spanish and Portuguese crowns began to create economic models based on agricultural products. In the case of Latin America, the first crops of basic products began, including to support the centers, under a logic of colonies and supply the demands of the markets, in addition to the economy that derives from the exploitation of natural resources and precious minerals.

The second stage during the economy of Latin America becomes the agro-export sphere after the independence of the countries with the European crowns, they began to see how they positioned themselves in the international market, gaining a greater role in exports and sale of products, they continued with the same technique that they had been working with previously, for which reason they expanded a series of products for the liberal stage, which is the most famous product that was introduced in the region and continues to this day. Being crucial for the Latin American economy has been the introduction of coffee.

The agro-export model allowed the countries of the region to diversify into other products such as bananas, tomatoes, avocados (mostly in the Central American region) and products such as gaucho, cattle, corn (South American region), this contracted higher profits. to the area, and create export models based on the stolen land, giving way to the third stage that would allow the rise of a new model of creation and consolidation. Latin America exports 15% of the world's food on the world market, which makes it the largest exporter of agricultural goods and food.

Interests in sectors of Latin America are:

- Mexico: automotive, finance and electronics
- Brazil: telephony, electricity and finance
- Argentina: telephony, banking, electricity
- Andean Community: hydrocarbons
- Chile: services (telecommunications, finance, energy and retail trade)

The third stage, as indicated by the author, refers to the implementation of the import substitution stage, which is the response after the deficiencies of the agro-export model, after the end of the first and second world war, creating an economic model that would allow exploring other areas within the Latin American economy, for example, it would begin with the response to strengthen national industries by creating a much larger market for consumers in the region, in turn it would also allow creating incentives and taxes for products from other parts of the world.

In the fourth stage. The era of liberalization consists of the Washington consensus and the rules that the countries of the region adapted to once again increase their economy and insert themselves widely in the world market, freely consisting of the introduction of multinational companies in the region, in addition to having with various agreements to privatize national companies and return them to private capital, which allowed in some countries, such as Chile or Mexico, increases in their economy, allowing once again the restructuring of the economic model in the area, Latin American market is Brazil, followed by Mexico, Argentina, Colombia and Peru, an issue that in our database, the countries are present, being highly attractive by Western countries and now recently by Asian countries, one of its characteristics is the capacity for middle income and high income, which allows the population to have considerably high purchasing power.

For the 60s, the old businessman is retained to finance efficiency and competitiveness policies. paths, energy (more protectionist State), in the 70s international capital began to meddle. in the expansion of international markets (the State begins to weaken and the attempts to industrialize technologically also those efforts stagnate) and local industry.

Table 3

Main import products in Latin America

Durable goods	Intermediate goods	State Enterprises Capital goods	Foreign companies Durable goods
Sugar	Paper	Railway equipment	Automobiles
Textiles	Refinery	Aircraft	Capital goods
Dairy Product	Auto Parts	Boats	Steel Industry

Source: CEPAL Foreign Direct Investment 2022 Report

In the 80s, the promises of wage increases and productive revolution were not fulfilled and the national industries were not activated. In the 1990s, the state yielded to market forces, benefiting foreign capital and the few established strong industries or sectors (agriculture). Suffering small and medium enterprises. In addition, difficulties and limitations generated, highly negative trade balances. Deepening the deindustrialization that the dictatorships began, the government got rid of government companies, At the beginning of the 2000s, both regions turned their backs on each other and there was not much commercial interaction, Brazil and Mexico have global Latinas, Chile concentrates half of the multilatinas.

Latin America was characterized by fiscal deficits and high levels of inflation, Great external debt, little capacity to attract foreign capital, Investment comes after economic development, some ECLAC studies indicate the order of investment, as follows, Asian 60%, North America has 45%, Europe has 71%, Latin America has 22%, Africa and Midwest 21%

The American dollar is the main financial asset that people use as a reserve of asset value, in the Latin American region economic uncertainty has occurred in times where there are usually presidential elections and political crises, these exchange rates tend to increase, the same at A recent report from the IDB indicated that exchange rates obey excessive indebtedness behaviors, being less risky for the growth of the region, which also indicates that it must be solved so as not to lose the moment to establish greater gaps and opportunities, good debt management is essential to maintain good quality investments, and as other authors point out, provide better services to citizens, reduce financing costs and generate greater growth and employment.

Chile is the main producer of copper, Brazil is the third producer of iron, Mexico is the first producer of silver, Venezuela one of the main oil producers. One of the challenges that the region must currently assume is the ability to establish policies that allow attracting investment. clearly attractive to the Asian market due to its proximity to the northern countries, especially the United States, something that due to its free zones on the borders are highly attractive for investments, especially in the manufacturing sector, in the second block we could to point out the Central American case, which assumes certain interesting features, on its geographical location, clearly this will go away defining its commercial situation later on.

The Central American countries despite having a territorial area around 400 thousand square kilometers, expanded by more than 6 countries, not all of them are homogeneous, they have various differences between them, their level of development, purchasing power, in addition to their socio roots. cultural, have a diversity of population and diversity of infrastructure. Investments work for access to new markets, cheaper production, introduction of new technologies and job creation. One barrier is the lack of knowledge of foreign markets. FDI, foreign direct investment, during the 80's began worldwide, there was a flow of investment throughout the world.

Since 1988, Southeast Asia has become a place of much greater interest to generate investments made from Latin America, and in the 1980s, the countries that benefited the most from investments were Guatemala, Honduras and Costa Rica. Firms invest more in manufacturing and services. Central America was the region that grew the most among the Central American countries, among them the case of Panama and Costa Rica stands out, but it does not reach the level of the countries of Southeast Asia. Central America is the seventh largest economy in the region, behind Brazil, Argentina, Mexico, Colombia, Chile and Peru, in terms of Construction and Services.

Central America in the last thirty years had enormous economic growth, but in terms of productivity it was very disappointing. There are more than 21 seaports. 9 in the Caribbean and 12 in the Pacific. And 5 cargo terminals, more than 75% of products use maritime transport for regional trade, with 5 successful chains, which are: Agricultural products Guatemala (fruits and vegetables) Honduras and Nicaragua (beef), Costa Rica (pineapples) Textiles and footwear. El Salvador. Machinery and electronic products. Costa Rica Medical devices. Costa Rica, Call centers in Guatemala.

The Central American industry began to stagnate around the end of the 70s with a Taylorist vs. Ford economy model, can be made a critique can be made about the general features that have characterized the economy in Latin America, this was especially late and witnessed signs of exhaustion. Due to indifferent dictators, dogmatic revolutionaries and hostile military. Panama financial system and infrastructure, Costa Rica Human, technological resources and communications technology. El Salvador relative change in aggregate productivity and sustainable economic policies, Guatemala has controlled his fiscal balance.

In Latin America the one who has the majority is Brazil, Venezuela, Ecuador and Uruguay. Interference in countries, China and Asia are not interested in meddling in countries. In Africa the debts do not charge interest, but they are high, in Latin America, the debts are paid the monetary interest well with natural resources. Throughout these stages, Latin America continues to have basic problems, including the economic backwardness that has positioned the region as making totally slow progress and setbacks at times, while failing to fully incorporate itself into the international market, which, through The interaction with the Asian region allows us to glimpse better options to create a broader and regional development model that allows us to see alternatives for progress and economic development and also manages to take advanced steps towards regional integration.

Since the results have been reported and detailed according to the tabulation made, it allows us to understand the direct effect of the investments, therefore the results are significant at the time of carrying out this analysis, below we will continue detailing the data with the graphs the context of the same investments and variation by means of tables, which indicates that the investments, although they have little impact, are on their way to represent the maximum boom, possibly in a few years taking the position of the classic investing countries such as the United States, Canada and Europe, and in addition to that, investing in Much more productive and technology-focused topics.

As can be seen, there are Asian countries that still have a regular vision of the region, however, the new talks allow greater communication channels to be consolidated, the immediate effect on the growth of the countries through investments in Asia Pacific does not weigh in a tangent way, in the future it could be projected as a relevant actor, and a stage in which both areas maintain a mutual relationship and establish cooperation and investments in the industrial sector, in manufacturing and services.

Chapter 4
Asian Investment in Latin America

In this chapter reference will be made to Asian investments from Japan, Taiwan, China, Korea, and the rest of Asia, using our Analysis unit the 13 countries of Latin America in the selected period of time, here we will see the evolution, the priority areas in which investments have been made, starting with a general vision, up to each case.

4.1. General introduction of Asian Investment

Investments from Asia in Latin America can be observed as a result of constant growth, what will be addressed in this chapter is the dynamic that is currently developing between the two blocks, so a brief perspective of the present will be given. some countries have attracted more investment than others, for various reasons; what has been examined in this study is that same investment dynamic.

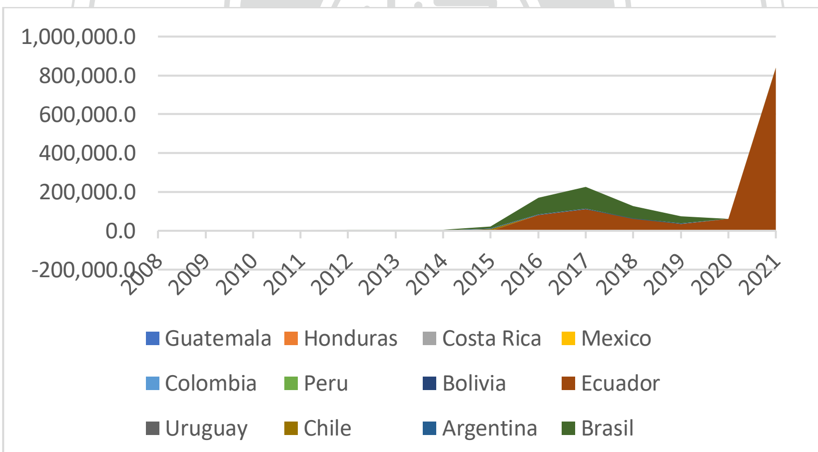

Fig. 1. Latin America Investment from Asia.

Source: data of central bank of each country.

In the Panama Case, is really important to show the numbers because the quantity its too high, that’s for the Panama canals reasons, most of them, are doing business to create a zone of free market of goods and services. Like we can see in the next graph.

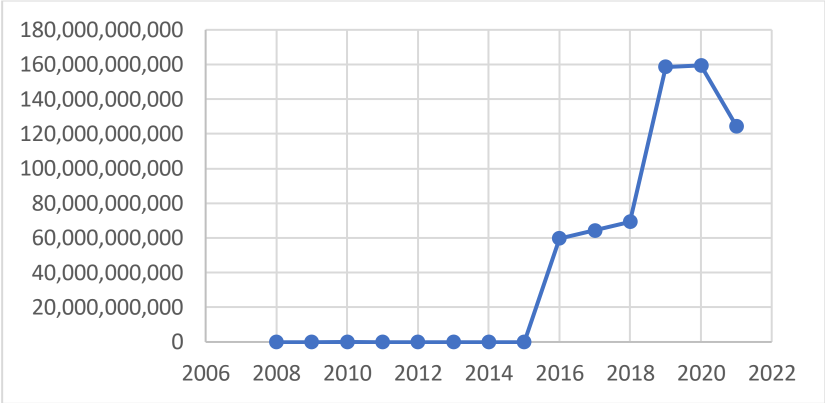

Fig. 2. Panama Investment from Asia.

Source: data of central bank of each country.

We can also include other Asian countries and their impact on economic growth, therefore, this has had a direct impact on the gross domestic product, here some countries have been selected, and as will be seen in some, as in the case of Argentina, exports More than 1,500 million dollars have been maintained, however, as of 2021 these investments have been falling, in the case of Uruguay or Guatemala, investments have been rising and positioning themselves at a higher peak.

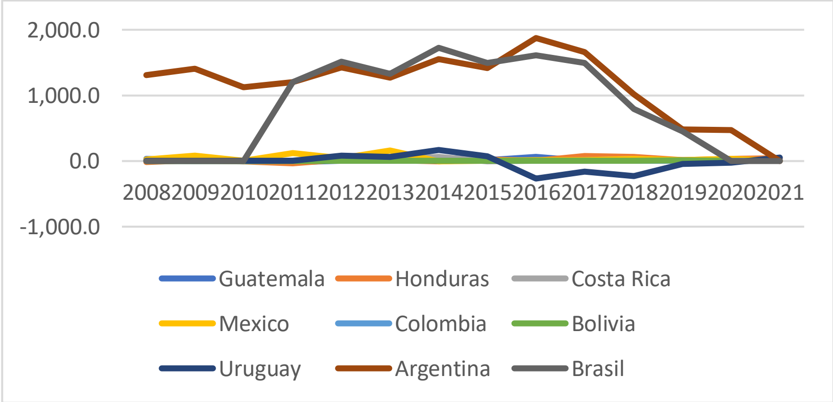

Fig. 3. Others countries Investment from Asia.

Source: data of central bank of each country.

Next, there will be a synthesis of what foreign direct investment has been in the case of Korea, Japan, China, Taiwan and the Rest of Asia, likewise various graphs have been placed that explain its evolution and its size, in the local dynamics that belong to each country.

4.2. General introduction of Korea Investment

Korean investments in Latin America have been reported since the early 90s, since then, according to one of the most recent reports from the Inter-American Development Bank published in 2022, international trade has increased by around 12%, likewise It is added that this represents more than 26 billion dollars, Korea is interested in Latin America and the region is undoubtedly the production regarding natural resources, among them, Latin America has the largest reserves in the among the world them copper (Chile and Peru) lithium (Chile, Argentina, Bolivia) nickel (Brazil, Colombia, Guatemala) silicon and rare earth metals (Brazil).

For our data analysis, it is divided by means of two tables, in which the first the amount does not go beyond 100 thousand American dollars and the second which represents a greater boom and investment, which from our sample of 14 countries, Data was obtained from only 10, which makes our analysis an interesting sample.

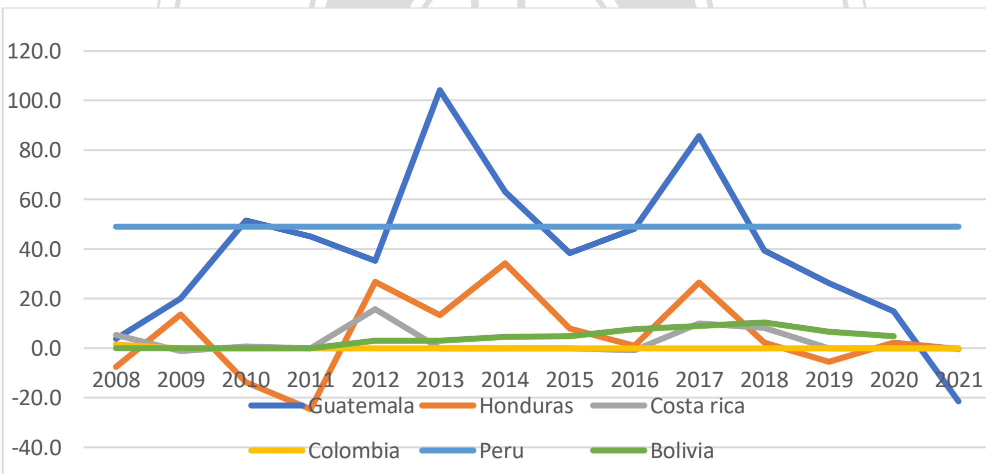

Fig. 4. Korea investment in Latin America.

Source: data of central bank of each country.

The main trading partners between Korea and Latin America are Mexico, Brazil, Chile, Peru, Argentina, as we can see into the next graphs showing the biggest markets and investments, one of the characteristics that the Korean economy is focused more on the segments of the high-end value chains, especially in the area of technology, which complements the Latin American region, and is less prone to generate trade shocks, unlike of investments or products generated from China. Latin American exports to Korea are much more diversified than in relation to exports to other countries in Asia.

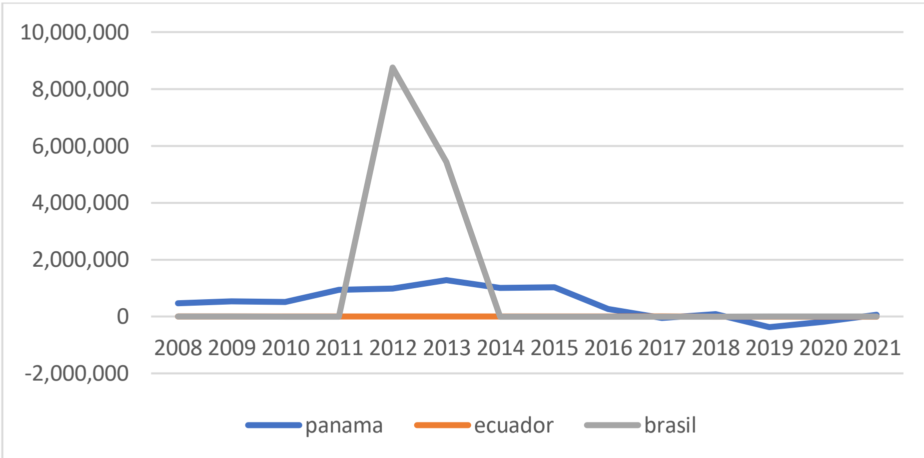

Fig. 5. Korea investment second biggest markets.

Source: data of central bank of each country.

The main products of trade and imports made from Korea can be summarized as follows: oils derived from petroleum (Mexico, Brazil, Ecuador) mineral and copper concentrates (Peru, Chile and Panama) corn (Argentina, Brazil and Paraguay) refined copper (Chile), lead ores and concentrates (Mexico, Brazil and Bolivia), iron ores (Brazil), zinc ores (Peru, Mexico and Bolivia), soybean oil (Brazil and Argentina), chemical wood pulp and sulphate (Brazil, Chile and Uruguay), concentrated iron minerals (Brazil, Chile) this same information indicates the importance of the natural goods and resources that Korea has allocated to Latin America, confirming that they are extremely necessary for export and commercialization.

On the other hand, what has been acquired from Latin America to Korea during 2021 indicated data are the following Tanker ships (Panama), components and accessories for tractors and motorized vehicles (Mexico, Brazil and Chile), other parts of boats (Panama), cars and motorized vehicles for the transport of people (Mexico, Chile and the Dominican Republic), integrated electronic circuits such as memories (Brazil, Mexico), components suitable for flat screen monitors, radio or television broadcast devices, digital cameras, among others. (Mexico, Brazil, Argentina), Korea, for its part, has bases for the establishment of value chains promoting a greater market in renewable energy, for example in the production of solar panels, lithium batteries, electric vehicles, this allows providing greater benefits to trade, and investment in technology transfer.

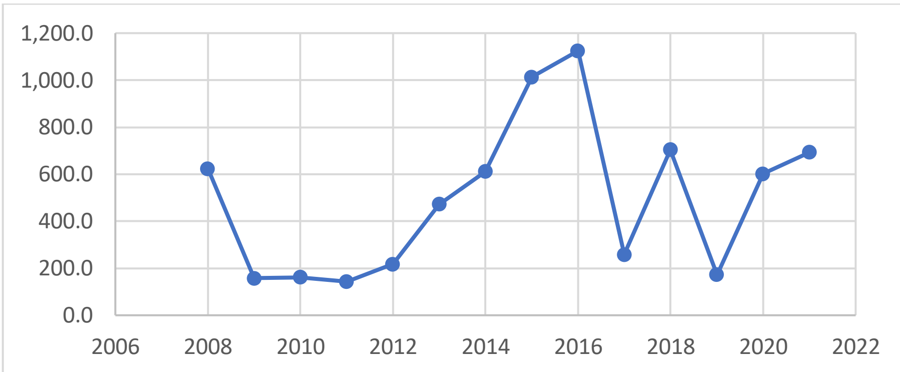

Fig. 6. Korea Investment in Mexico.

Source: data of central bank of each country.

So the flows of goods and services seem to have followed a global trend, producing a surplus in Korea, which reached 6.5 billion dollars, data that will also be seen below in the previously prepared graphs, one of the sectors that currently cover investments is a matter of sustainability and beyond the promotion of digitization in goods and services sectors, so the region has a range of needs to cover this issue, something that, as Korea has pointed out, achieved this process in its management and technology in much friendlier conditions for export.

For this reason, in data on Korean investment in Latin America, it is estimated based on the data obtained from the countries analyzed that investment has reached around 2.4 billion dollars, which is around 9%. of investments made from Korea in the region, reaching much higher peaks during 2010 towards 2016, especially 60% of these investments that are attracted mainly to the largest markets in the region, which are Brazil and Mexico, although considerably high in Panama.

However, starting in the 2000s, investments, as mentioned, diversified, for example, the KIA industry arrived in Mexico, with production factories, and Hyundai with factories in Brazil and Mexico, which could also add factories. of Samsung and LG in Brazil and Mexico, which has also boosted the economies in the product sectors, in terms of technology transfer, knowledge and know-how, this same report points out job creation and greater profitability as a positive aspect, iron products, laminated products, non-volatile data storage devices (Mexico and Brazil) this exchange is much more noticeable, on exports made from Korea, more focused on value chains in the area of technology, which the investments that will be made will start directly from the aforementioned products.

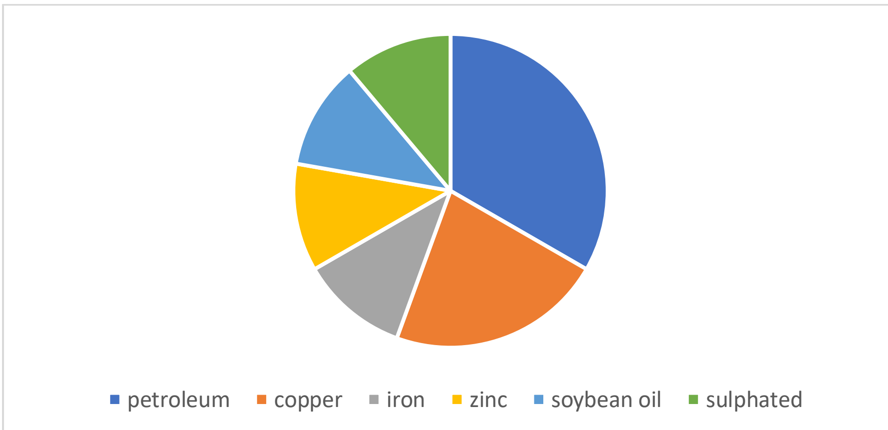

Fig. 7. Korea Investment and trade products from Latin America.

Source: data of central bank of each country.

It can be summed up that Korean investment has been much more exponential in Mexico, Brazil, Panama and Peru, the first above all due to its proximity to North American markets and the low cost of production, which has reached historical peaks in terms of investment, especially providing around 470 million dollars at the time of consulting the historical data, basically Korea is also very inserted in the investment of companies that are related to the production of lithium batteries and electronic vehicles, for which lithium is a material that is It is located between Bolivia, Chile and Argentina, which the Asian country is very interested in its production.

As mentioned, based on our data table and information through the data obtained, the country that invests the most in the region is Mexico, Panama, the Bahamas, Chile, Brazil, Uruguay, these investments are accompanied by initiatives involving other Korean institutions, including the Korea International Cooperation Agency (KOICA) which provides grants for development projects, technical assistance and capacity building and by Korea Eximbak which provides various concessional loans and consulting services, among them made to international financial institutions, Investment through raw materials and natural resources requires environmental degradation, what the Korean government is doing is betting on renewable investment, news in 2020, indicating that the Korean company acquired lithium deposits in Argentina around 280 million, which are investment plans.

Among the scenarios that the Korean government has contemplated for the elaboration of strategies among the governments of Latin America are digitization, climate change, infrastructure, health, education, agriculture, fishing, water, sanitation and hygiene, as well as Korea, as indicated by the report of the Inter-American Development Bank, has initiatives for the dissemination of knowledge, in terms of a Knowledge Sharing Program (KSP)[23], that allows the exchange of experiences and knowledge in Korea in terms of development, which these investments are developed in of investigation, consultations and developments by diverse people and institutions that are totally interested.

Among them, the companies that have invested in Latin America and have collaborated together with other companies in the region have been: Korean National Oil, which is mainly dedicated to oil and gas, POSCO mining, Polarias Shipping, which sees development mainly in transportation issues, Cheiljedang Corp displayed mostly on the beverage issue, Korean Electric Power, focused on electricity, GS Engineering & Construction Corp, focused on the water issue in Brazil, Korean Resources Corp on mining issues in Chile, Samsung Corp, coal issues produced in Chile, Korea Panama Mining focused on Mining.

Therefore, Korea's performance in the region has been very interesting, 30 years ago there was no interaction, now it is approached with dynamism, this has allowed for greater concentration, and a greater rise in interaction between both regions, for which reason the advantages and differences continue to be noticed, but it allows a window of opportunities to be expanded, while Korean investment allows these numbers to rise and, in turn, provides spaces for dialogue and trade, which continues to be a challenge for the countries of Latin America and the Caribbean take advantage.

[23] obtained over several decades that has allowed the country's transition from poverty to being one of the economies and powers based on knowledge

4.3. General introduction of Japan Investment

In the case of Latin America and the Caribbean and its relationship with Japan, a publication made by the Inter-American Development Bank consisted of the following, analyzing the leading role of Japan in Latin American relations, called "a virtuous cycle of integration: past, present and future, of the relations between Japan and Latin America and the Caribbean" launched in 2016.

Considering the long history and involvement in the region, which has made relations more than 50 years old, with a boom decade during the 1960s, trade has been characterized as a sustained boom driven by Japanese demand in natural resources and competitiveness in various manufacturing products.

These products have been following a pattern of exchange for basic products and manufactures, these exports and investments are directed towards the agricultural and mineral environment, responding to a commercial flow of investments that have been made in the manufacturing and service sectors. especially in the 1990s, in the following graph shows some numbers of the 12 countries analyzed, on the investments made.

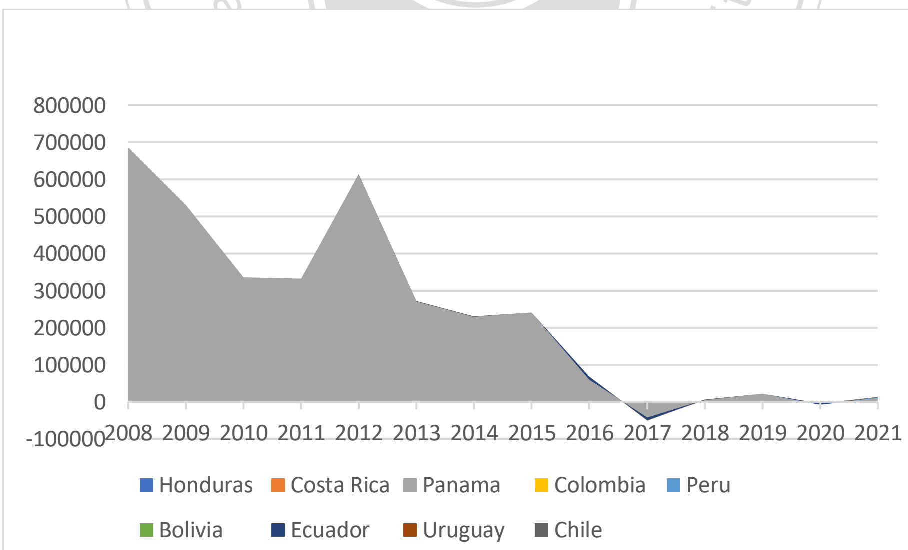

Fig. 8. Japanese Investment in Latin America

Source: data of central bank of each country

According to the data analyzed, and the information obtained on the Internet, Japanese investments in the region are located as follows: in the primary sector there is an amount of agricultural areas (22%) and in the industrial area (40%) and services (35%) for which the pace of Japanese investment has remained strong and the economic environment has counted on around 45 billion dollars for the year 2010.

The benefits that have been seen in the distribution among the various sectors through investment have permeated various channels through trade, and these have tended to the evolution of the productive chains, allowing us to witness new opportunities for the region, for example, automobile manufacturing plants have been invested in Mexico and Brazil, witnessing a key relationship between the relationship in the private and public sectors.

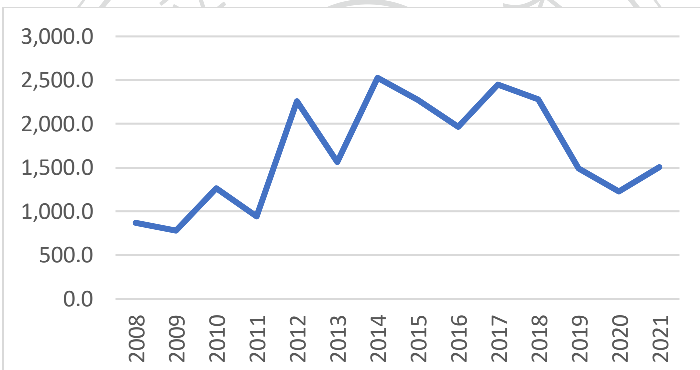

Fig. 9. Japanese Investment in Mexico.

Source: data of central bank of each country.

The presence of Japanese companies in the first tier is determined by sectors ranging from automobiles to information technology and clean energy, which brings cutting-edge technology to the region, as published by the IADB in its report in 2019, which also allows streamlining business management, and providing jobs with qualified labor, which gives greater incentives to the manufacturing sectors in the Latin American region.

According to a report in 2014, it indicates that the last exports received to Japan, 73% were made of copper, these exports have also come directly from Ecuador, Bolivia, Paraguay, El Salvador and Panama, which is in second and third place. behind by China and Korea, in the Japanese case iron, meat, corn, coffee, fish, aluminum, cellulose and oil, unlike Chinese trade which the report indicates soybeans, oil, minerals, copper, oil, among others.

Unlike free trade agreements, Japan has a greater preference over economic association agreements, since these provide regulations with greater cooperation and investment facilities that have been broadly provided, giving a better business climate and guaranteeing a decisive role in the service sector (35%) manufacturing 34% and primary sector (25%) even more assistance has been provided than in African.

According to the report prepared in 2016, over 10 years Japanese companies that have invested in Latin America have doubled, in 2006 there were around 1,262 companies and now for 2014 the update has been around 2,087 which this It has represented positive stocks for the region, bringing data on income issues around more than 120 million dollars during the year 2016.

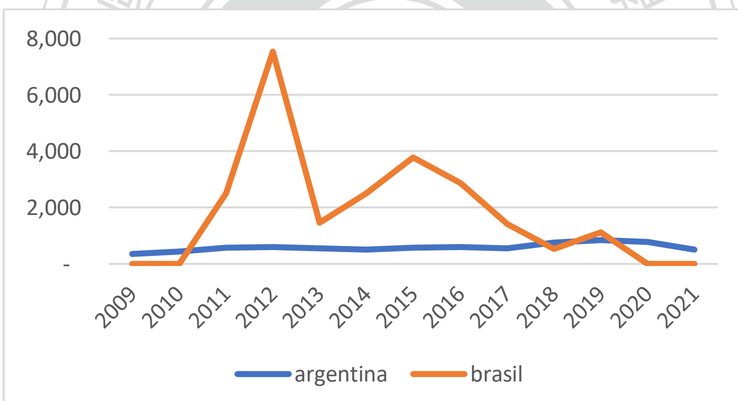

Fig. 10. Brazil and Argentina Investment from Japan.

Source: data of central bank of each country.

As mentioned, Japanese and Korean investment is more focused on manufacturing, Korean investment is concentrated around 80% in the region, on the other hand, Japanese investment is distributed among the primary, manufacturing, and service sectors. Chinese investments are more concentrated in industrial environments, textiles, footwear, steel, among others, which are direct competitors to investments from Latin America.

Japanese cooperation has been considered much more transversal, unlike Chinese assistance, which is characterized more in terms of preferential approaches towards exports and imports, in populations and diasporas that have been produced have been the first to have provided greater approaches Therefore, the country is much more interested in natural resources, in the region, and the opportunities that local markets offer.

One of the characteristics of Japanese investment in Latin America is that many of the Japanese manufacturers use their investments to sell to third markets, which also allows a direct increase in exports from the region, generating significant profits, this presence of products In the economies of the countries, they have glimpsed opportunities for neighboring countries to sell inputs and continue to stimulate regional production chains.

In addition, cooperation through investment has expanded through Japanese cooperation (JICA) has allowed, to help other parts of the region, to generate export cases, using technological innovations to increase productivity, and taking into account the chains of the areas of natural resources, these lessons allow opening the Asian economies, to position themselves and continue investment in energy issues in Latin America. The investments have been briefly cataloged in the duration of their periods, the data shows that their number increases and decreases, the links have strengthened trade, and cooperation, producing profits, the Asian region in the case of Japan and the countries of Latin America.

4.4. General introduction of China Investment

Extensive information has been written on trade and investments made from China, however, the accelerated rite with which it has developed has aroused the interest of the Asian giant towards the region, however, in this section it’s to summarize the key moments and the implications that must be taken into account on the investment made in the region, one of the main characteristics is clearly that China becomes a competitor to Latin American products.

China in the world has its investments mainly focused on the manufacturing area with 30%, trade with 24%, commercial services 13%, construction 7% Chinese companies in Latin America seek natural resources and the search for markets, according to a report by the United Nations Economic Commission for Latin America (CEPAL), Chinese companies that invest in the region come from the regions of Shangdong Jiangsu, Zhejiang, Fujian and Guangdong, which are the most dynamic areas that invest in a more projected strategy[24].

The dynamics of globalization with around 54% of the projects that are destined, followed by the zone of Central China that represents 10%, China to the northwest 8% and the west 6% which according to the CEPAL[25] study represents companies that are under the provincial administration of commerce, and local companies, with different levels of administration.

Analyzing China based on our information has required an understanding of variables and mechanisms that provide greater support for data collection. In recent years, China has become one of the top 3 investments in the region, followed by the United States and The European Union in General will soon become the largest investor in the countries of South America.

China is the second investor country to attract investments from all over the world, and recently it has become the 3rd foreign investment, beyond global initiatives such as Made in China and the new silk route, they have established actions that have tried embarking on a new stage of globalization for which Latin America has not been left behind, and in one way or another has attracted the attention of the Asian giant, playing a leading role in the purchase and sale of material resources within the exchange of technology and knowledge.

China is interested in trading with the region based on a model of regionalism. Trade relations between Latin America and China date back to the mid-1950s, for which agreements have been signed with MERCOSUR, allowing China to focus on a much larger system between blocks. regional, and above all between a more aggressive dominance due to the monetary nature, allowing to concentrate greater revenues to the Chinese investments made in the Southern Cone in the field of manufacturing, chemical, pharmaceutical, and textile products, among others.

[24] CEPAL. (2021). Foreign Direct Investment in Latin America and the Caribbean. Santiago: United Nations.

[25] Idem.

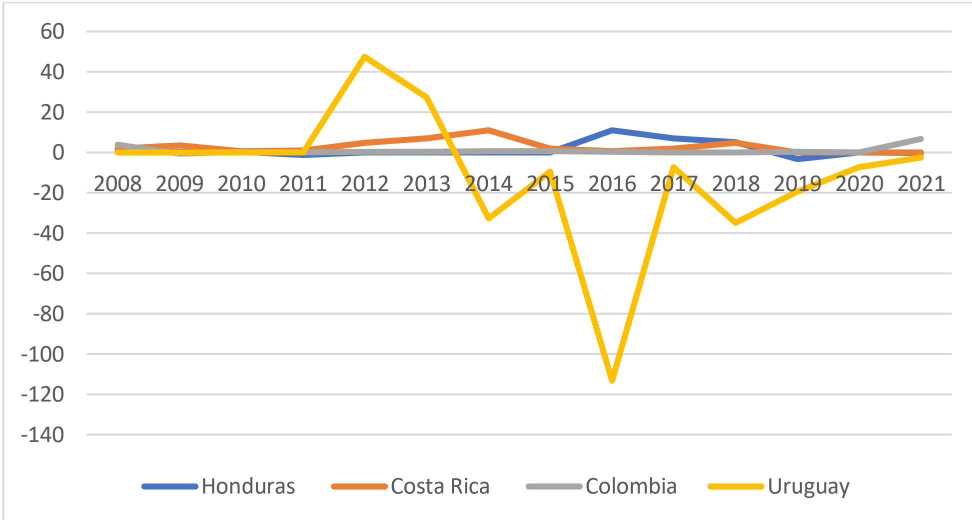

Fig. 11. China Investment in Honduras, Costa Rica, Colombia and Uruguay.
Source: data of central bank of each country.

China has invested mostly in extraction companies according to CEPAL in 2020, they have multiplied more than 26 times, by 2035 it could represent 25% of trade made by Latin America, the country in the South that has the greatest participation with China is Chile representing a total of around 37.2% of Chilean exports and 27.3% of Chilean imports.

In addition, the countries where China invests the most are Brazil, Peru, Argentina, Cuba, Jamaica, Chile, Mexico, in the sectors that most receive this investment are oil, copper, iron, by Chinese companies, on the other hand, it is not allowed Apart from soybeans and oil, which are the two natural resources that the Asian giant demands the most, which starts from the investment in infrastructure to mobilize the products and create a much more optimal way to reduce costs and times.

China is not interested in Central America because it is a consumer market, because it is small, it is interested in the economic platform and the sub-region as a transit route. As of 2010, China became the main investor and lender in Latin America. Telecommunications and infrastructure. To a lesser extent, it is oriented towards the financial sector, space research, scientific cooperation. Companies that belong to the communist party, and also, regional banks.

It is estimated that around 13% of the total oil coming from China comes from Latin America, especially from Venezuela (33%), Brazil (33%) and Colombia (21%). For this reason, Chinese banks allow them to give loans to Chinese companies to share the costs of oil, in the case of soybeans, the main exporters to China are Brazil and Argentina with 77% 18% of the total, soybeans sent to China, which through companies acquire control of the productive chain, according to a report by CEPAL, these investments amount to 50 million dollars, including grains, fertilizers, storage, soybean processing, marketing, distribution of inputs, and regional exports.

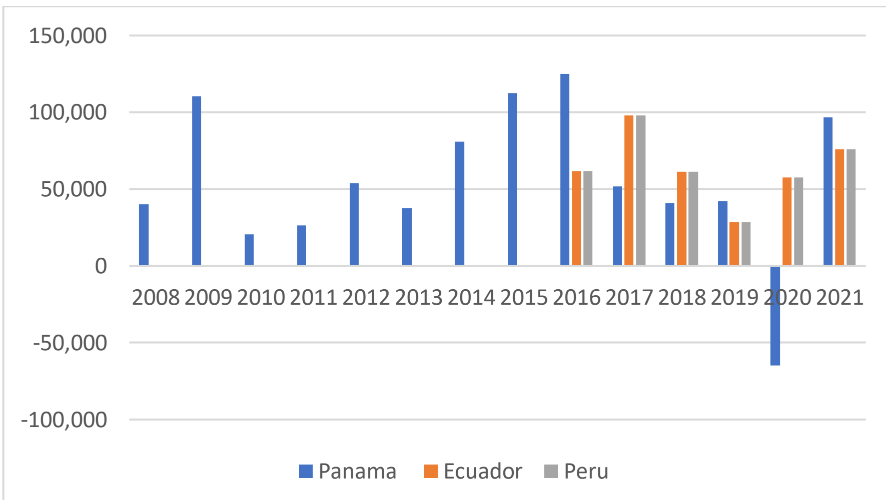

Fig. 12. China Investment in Panama, Ecuador and Peru

Source: data of central bank of each country

In the case of oil consumption, China has doubled its amount of consumption from 4.7 million to 10.8 million barrels per day, which comes from the intense use of the transport sector and the vehicle fleet, through the consumption of gasoline and Diesel, and as is well known, the main suppliers of these sources have been the Middle East, Africa and Latin America, the latter grew around 42% per year, which emits around 854 million barrels per day, thus covering an amount of 23 investment projects from China, in this sense the sum is around 33,000 million dollars.

The same CEPAL report indicates that Chinese companies have preferred Latin American oil, since they can access and have acquisition rights to its extraction, which these projects come through Chinese oil-based loans, these loans act as a form of mechanisms that allow easy access in the extraction of the material through this financial exchange, another characteristic is that it is also extracted by China to resell to Chinese companies and to other countries, these investments are present in Venezuela, they are In turn, it directs Colombia, Brazil and Mexico.

Liberalization has determined the efforts to develop in emerging countries, over the last decades, these multilateral and unilateral dynamics have attracted a significant increase in investment, predominantly in Latin America, among some resources, China has entered Africa through the Cooperation Forums for example, on the other hand, China has entered Latin America through bilateral agreements and diplomatic visits.

In some cases there have been some failed purchases or that have remained stagnant, producing greater debts towards the countries, one of them is Venezuela towards China on a high-speed train which was not completed in 2012, this caused a debt of 400 million dollars with China, which also China has remained in debt with Venezuela for the purchase of oil with Venezuela, the other part of the investments the loans from Chinese banks that receive the consideration by means of barrels of oil, as in the chaos of Venezuela and Brazil.

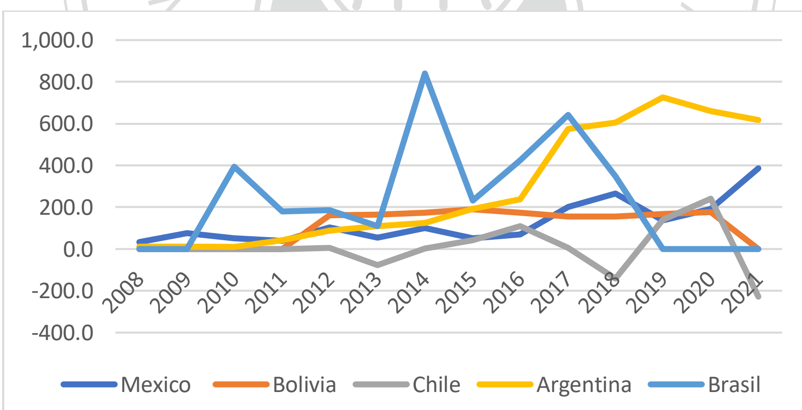

Fig. 13. China Investment in Mexico, Bolivia, Chile, Argentina and Brasil
Source: data of central bank of each country

China's imports of precious metals are in this way: iron 21%, copper 50%, zinc 41%, lead 32%, molybdenum 51% and tungsten 14% since they are hard-to-find metals, for which becomes a desirable product for the elaboration of materials.

In the case of iron, it is a material that China has recently been demanding for the manufacture of manufacturing and electrical and consumer materials. It is contemplated that the consumption of iron in China will increase around 118 million tons by the end of 2000. The ECLAC report during 2018 indicates that by 2014 the consumption of copper increased, which became 10.9 million tons, due to the accelerated urbanization of China.

After Oceania, Latin America is the region that exports precious metals and minerals, as explained by the countries with the largest amounts according to the CEPALs reports, which indicates that the largest amounts come from Brazil, Peru and Chile, something that is worth noting, is that the materials that are extracted by third countries, process the minerals and then resell them to Chinese territory, some cases usually occur, for example, Korea, Japan, among others, which is estimated to be around of 1.3 million tons, which has indicated that China has a great interest in containing the benefits of the extraction of natural resources, for the production of the materials that they are willing to make.

China is a large consumer of soybeans, this product has been consumed on a larger scale due to changes in the diet of the inhabitants, the consumption of animal meat has risen, soybeans have replaced this product with its high amount of protein, from the South American region, the soybean that comes from Latin America, is from Brazil 77%, Argentina 18% and also some data indicates that Uruguay has around 5% of soybean exports to the Chinese territory, its form proceeds in a chain of value, that is to say that China is not in charge of the cultivation, if it does not hire third-party companies for the process of it.

Although it is true that soybean investment is still minimal, unlike oil and iron, it is positioning itself as a key element for its consumption. At this point, China also supports the soybean process through storage, marketing channels, production of the product and the communication between the ports for its export, which the economic capital is more than 2,000 million dollars, it must be taken into account that added to this, another product that is produced from these countries and reaches China is the coffee, sugar, biodiesel and cotton, these investments are dated by exchange of knowledge and opening to markets.

One of the characteristics of Latin America is that the requirements for the export and import of Chinese products are minimally light, so that the production of soybeans has been taking place from the areas of attention to resources and the way in which they are used. carried out through logistics and the operation of their materials. Investments made from China to Latin America are concentrated in transportation and the creation or remodeling of the quality of ports and airports, railway infrastructure in the purchase of wagons and train lines to boost growth, as in the case of support to Panama and El Salvador.

In South America, exports had varied, by 2021, according to CEPAL, it had grown by around 36%, applying improvements to the prices of basic products and the demand that comes from Asia, especially China, according to the data that has been published. used to tabulate the information, the significant growth recently presented in Mexico and in the Central American countries is added, increasing a growth of around 20% of sales products.

CEPAL indicates that by 2020, the investments subtracted by Argentina are equivalent to 21% of GDP and 96% in the case of Uruguay, and 111% in the case of Chile, which in the same way could be compared with the case of Panama around 119% and Jamaica 126%, regarding the investments made, likewise in the last 10 years China has carried out more than 80 infrastructure projects which is equivalent to around 76 million dollars, which makes it depend on certain form for an evolutionary character.

Argentina follows the trend of Chile with respect to investment in China, which focuses on the energy sector, and a much more relevant variable, which involves renewable energy, in addition, China is committed to the giant in resources Natural resources that are gold, lithium which represents about 90% of the investments in these areas, these areas would also add telecommunications, food and the financial sector, added to Mexico, China does not intend to be a threat to the United States , only manages to pursue its interests through agreements and high-level forums, trying to integrate into the commercial logic of the region.

Chinese policy in Latin America consists of seeking policies and agreements that allow the articulation by the central government to establish the general rule of provincial governments, adjust central policies to the conditions, which the Chinese government encourages or gives greater enthusiasm to the national companies to globalize, their policies have been made to promote the exploration of natural resources, in total in the region more than 500 projects have been developed throughout the investments, which favors the win-win model between both actors, without However, it continues to be one of the most critical factors, and one that implies greater risks for fair competition in products.

4.5. General introduction of Taiwan Investment

In the case of Taiwan, there was only information from 3 countries obtained each from the national banks of each country, these countries are Honduras, Panama, Mexico, however, it is not shown that there has only been investment in those countries, as previously stated, one of the barriers to research is finding updated data, which is why the graphs below will show the status and current situation of the investments.

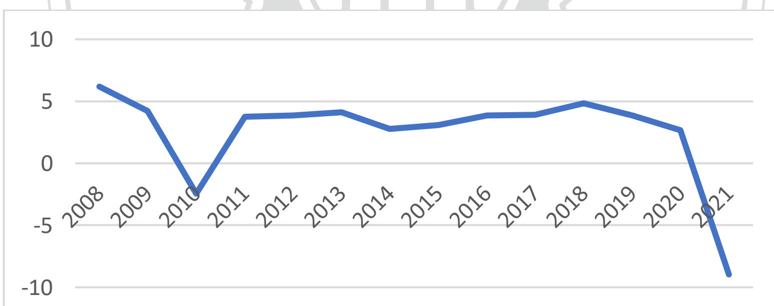

Fig. 14. Honduras investment from Taiwan.

Source: data of central bank of each country.

As we can see the evolution of the graph of the investments made by Honduras, this is reflected in an ascending way, that is, so the investments were declining in a considerably notable number, however, the results in column Y are valued over 100 percent and points out that due to various factors these investments decreased.

According to data in the case of Panama, we have information that the largest investments received were around 2015, which also provided greater inputs for investments, however, these investments were surely affected by the presence and entry of China. As indicated before, these were presented mainly in the area of technology and mobile products.

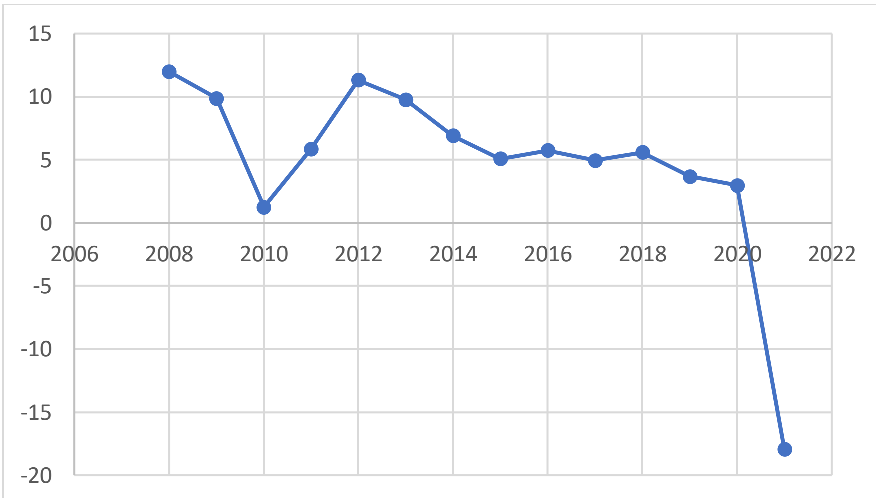

Fig. 15. Panama investment from Taiwan

Source: data of central bank of each country

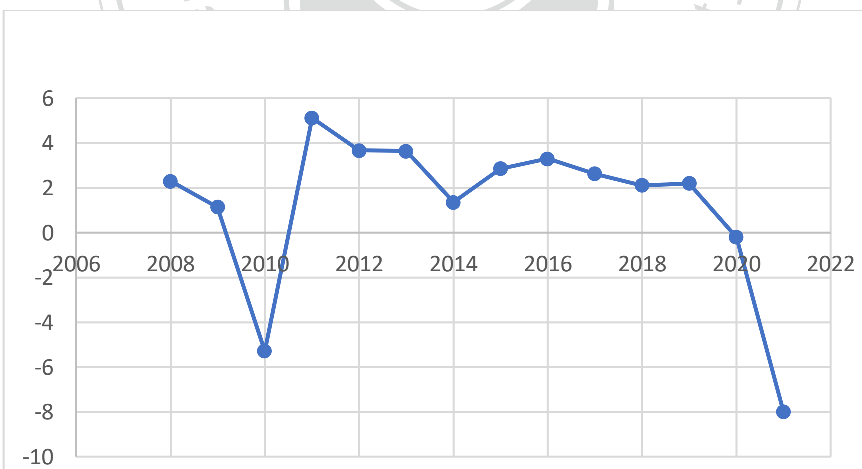

Fig. 16. Mexico Investment from Taiwan.

Source: data of central bank of each country

4.6. General introduction of Rest of Asia Investment

The Asian tigers, as they are well known, are countries that throughout the 1990s and early 2000s have been economies that have developed rapidly and accurately, including South Korea, Taiwan, Singapore, and Hong Kong, basically these countries have increased their GDP by as little as around 50%, promoting greater development in terms of well-being for their population, and also positioning companies for a global boom, enriching part of the population, paralleling the growth of Latin America has been linked to the extraction of natural products, therefore only productivity has been restricted, while employment is only confined to services and construction, a special case in Mexico where manufacturing is minimally achieved, which As the result is that no sector has managed to increase its productivity and its employment, otherwise the countries of Southeast Asia, the development in Productivity and employment are noted in the manufacturing sector.

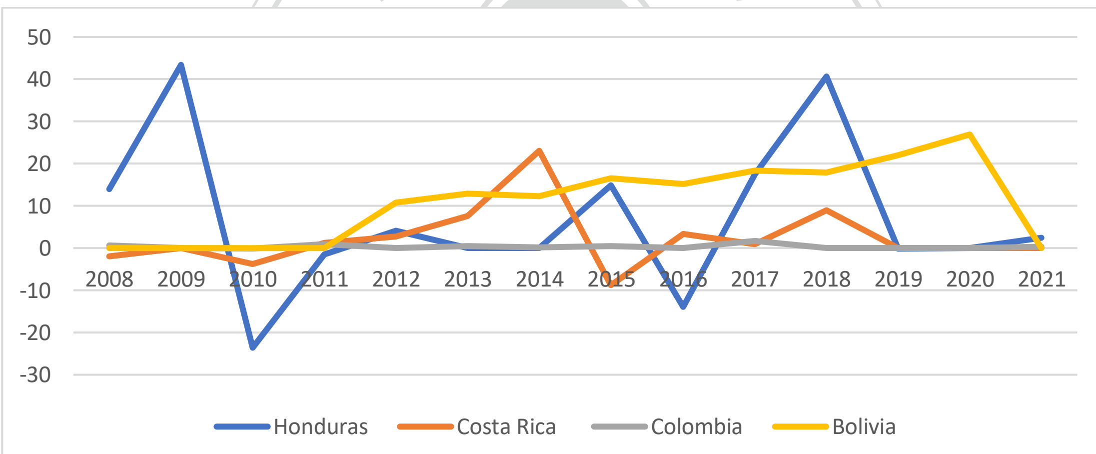

Fig. 17. Rest of the Asian Investment in Honduras, Costa Rica, Colombia and Bolivia.
Source: data of central bank of each country

In the countries of Southeast Asia, seen from Latin America, it is clearly appreciable the margin by which the investments have made workers receive much more of the benefits for which more competitiveness and productivity have been developed in them, especially the Southeast Asia such as Taiwan or Singapore, industrialization strategies have been concentrating on knowledge-intensive products "knowledge spillovers" which introduces free market strategies, due to the fact that the policies of the governments in Latin America did not lead to this pairing, a One of the consequences of these results was inequality, being in Asia the industries that mobilized more easily to handle this issue effectively, Unlike Thailand or Vietnam where productivity has been something that has been increasing and producing higher levels of development, in Latin America the productivity sector comes more hand in hand with the primary sector of extraction, while in aspects of services and construction there is no productivity but rather employment.

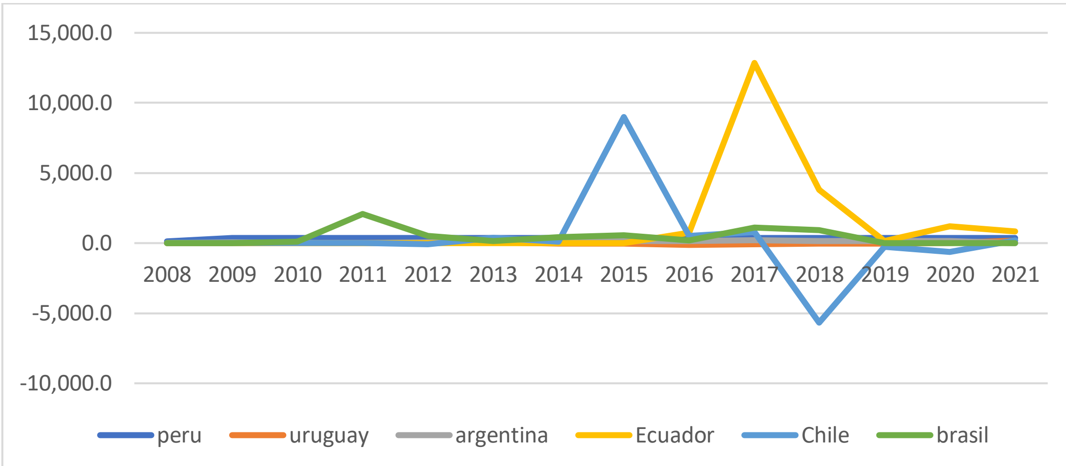

Fig. 18. Rest of Asia Investment in Peru, Uruguay, Ecuador, Chile and Brazil.

Source: data of central bank of each country.

With the industries that mobilized and that did not need to be close to the consumer market, nor that of inputs, see raw materials, one of the reasons why companies came to invest in Southeast Asia and as a lesson that America could adopt Latin America consists of the relocation of its manufacturing operations was the appreciation of the currency, which the interest rate was totally minimal, which encouraged a variety of companies to invest in the region, especially by Japanese investments that managed to provide higher levels to encourage investments in what was the region of Thailand, Indonesia, the Philippines and Malaysia, many of these investments allowed according to the data to relocate and provide a deployment, this aspect plus direct competition with China contribute to pressure for these countries could establish.

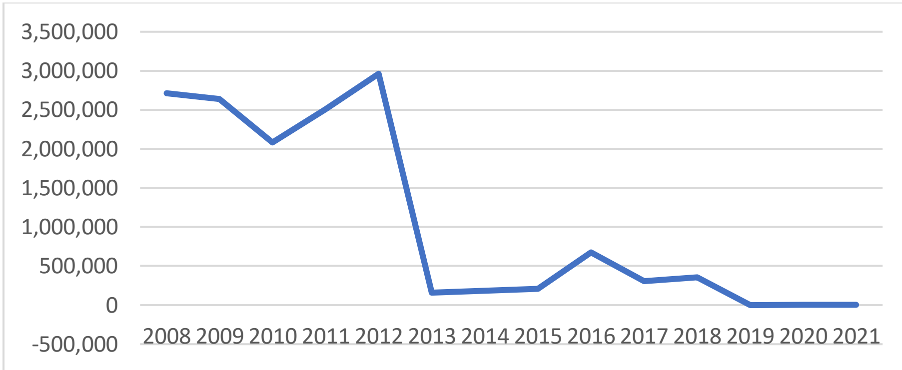

Fig. 19. Rest of the Asian investment in Panama.

Source: data of central bank of each country.

However, speaking of an investment relationship from Southeast Asia to Latin America would be premature, according to our data, the figures are almost nil with respect to the case, and therefore they do not have any direct effect on growth. economic, which could be classified as an exploration towards both regions, that is, between both the potentialities of one another are recognized, however, and reference is made to the fact that due to factors of ignorance, communication and agreements that have been scarce there has been no such interaction, which could be a window of opportunity, organizing rounds and bilateral agreements strengthening relation.

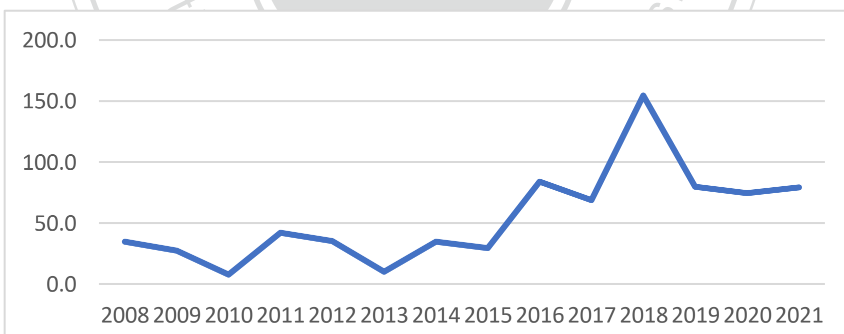

Fig. 20. Rest of the Asian Investment in Mexico.

Source: data of central bank of each country.

On the one hand, Thailand is one of the countries that is expanding economically and capitally with the constitution of products, which is requiring larger markets for the sale of products and locating capital, however, relations with Latin America are withdrawn, it is say that commercial exchange has existed in minimal figures, which has not yet developed a potential boom for massive investments coming to Latin America

Thailand's main exports to the world consist of automobiles, auto parts, computers, jewelry, precious stones, these exports are oriented towards China, and especially towards North America, which also provides greater opportunities to expand value chains towards Latin America. Recently, in turn, CEPAL organized a meeting between Thai businessmen and members from South America, including Peru and Chile, to provide more meetings, however the information and data remain minimal to carry out exhaustive studies and corroborate the importance of growth from one country to another.

Some data indicate that in Malaysia's exports, Mexico is in first place with around 41.7%, then Brazil with 26%, Argentina with 6.6%, Chile with 4.5% and Colombia 3.1%, while its imports from the region are as follows Costa Rica 39.8%, Brazil 21.3% Argentina 15.1% Venezuela 10.1% and Mexico 5%, what Malaysia is interested in importing is tin, chassis with motor, tin ores, nickel and oil wires, what Malaysia instead exports to the world are clothing, vacuum cleaners, palm oil, office machines, which is expected that these approaches greater results in the future and allow both parties to continue with the challenge of trade and solidarity of a wider and more efficient network in investments.

In the case of the Philippines, there is still the exchange in trade and the trade balance of both parties, in this case, the Philippines has a much broader and consolidated trade with Mexico due to its proximity to the United States, which provides it with much more space for international negotiations, in fact, some analysts have said that the Philippines could be the gateway for the countries of the region, because of the past and the historical ties that are shared, greater communication could be consolidated and this allows exploring better opportunities for the world and the way in which these results could be projected for the near future.

Similarly, Indonesia is an important part of our case analysis, since it provides us with a greater proportion towards development, even so, a greater dependence on China continues in this part of the world, however, during 2022 a meeting to facilitate negotiations between Latin America and

Indonesia, even so the figures are still minimal, the agreements are null but it has talks with regions such as Peru and Chile that allows it to enter the Latin American market.

In the case of Singapore, the entry of Latin American products has been allowed, that is to say that in terms of agreements and association, it has more talks and negotiations with these countries, among them are Uruguay, Peru, Panama, Mexico, Argentina, Brazil , Chile, Colombia, Costa Rica[26], these investments are concentrated in security, technology and surveillance, according to data from the Brazilian government to give an example, it is estimated that these investments would be reaching projects of 5,200 million dollars which would make Brazil in the 15th largest trading partner in the southern region, It is worth mentioning that in the case of Singapore, it is the country, it has become one of the largest investors in the Central American aspect, which also allows it to operate with a much more active participation in the round of negotiations.

Other actors that have also maintained a direct relationship with Latin America, thanks to its development and economic acceleration, is Hong Kong, which in some cases has seen its investments highly competitive and interesting to enter the Latin American market; however, the data from the same continue to be reduced for analysis, in general the countries of Southeast Asia are highly attractive for investments made from Latin America and vice versa, some of the parts of which must be worked on consist of the specialty of attracting private capital, further promoting an accessible investment climate and capital package.

If Japan first occupied a preferential space for Latin America, then Korea, Taiwan and recently China, without a doubt the countries of Southeast Asia, will be that motor, which will also attract attention, which, within the set of assets that they could provide, It would be more incisive, and really reading the data, and making statistical estimates, these approaches are not really distant, it is a reference, the environment and the agreements, possibly the transportation costs. In the end, these results show us how the evolution of the investments made is going in a positive way.

- [26] Inter-American Development Bank (2023), Making the Most of Connectivity [online database] https://www.iadb.org/en/improvinglives/how-asia-could-help-latin-america-become-export-powerhouse [retrived: March, 2023].

Chapter 5

Empirical Model and Specifications

5.1. Panel Data Models

Our data is panel data covering Latin American countries over a period of time. There are several estimation models which are usually used for the panel data model. They are OLS, Random Effect Model, Fixed Effect Model, respectively. Fixed Effect model includes one-way fixed effect model (only controlling country fixed effect) and two-way fixed effect model (controlling both country and year fixed effects).

5.2. Model Specification

Our main model is specified in equation (1). The dependent variable is economic growth rate (Y). Our independent variables include the Foreign direct investment (FDI), and a list of variables (X) including GDP, Export, Inflation, Exchange Rate, Trade and Import.

$$Y_{it} = \alpha + \beta FDI_{it} + \gamma X_{it} + \varepsilon_{it} \quad (1)$$

In order to examine the effect of foreign direct investment from a major continent or country on the economic growth rate of Latin America country, we specifically include foreign direct investment from US (IVUS), Canada (IVA), Europe (IVE) and Asia (IVA) as the explanatory variables in equation (2)

$$Y_{it} = \alpha + \beta IVUS_{it} + \gamma IVCA_{it} + \sigma IVE_{it} + \varphi IVA_{it} + \varepsilon_{it} \quad (2)$$

In particular, we would like to investigate the effect of foreign direct investment from a particular Asian economy on the economic growth rate of Latin American country. Therefore, we use the following equation to separately estimate the effect of foreign direct investment from a particular Asian country such as Taiwan (IVT), Korea (IVK), Japan (IVJ), China (IVC) and rest of Asia (IVRA), respectively.

$$Y_{it} = \alpha + \beta IVT_{it} + \gamma it + \varepsilon_{it} \tag{3}$$

$$Y_{it} = \alpha + \beta IVK_{it} + \gamma it + \varepsilon_{it} \tag{4}$$

$$Y_{it} = \alpha + \beta IVJ_{it} + \gamma it + \varepsilon_{it} \tag{5}$$

$$Y_{it} = \alpha + \beta IVC_{it} + \gamma it + \varepsilon_{it} \tag{6}$$

$$Y_{it} = \alpha + \beta IVRA_{it} + \gamma it + \varepsilon_{it} \tag{7}$$

5.3. Variables

In this section we will summarize the definition of each independent variable and its expected sign of effect in Table 4. Foreign direct investment (FDI) is expected to have positive effects on economic growth in Latin America. Investment from each region or investment from each Asian country is also expected to have a positive impact on economic growth in Latin American country. Therefore, their expected signs are all positive.

Table 4

Independent variables and expected sign.

Variable	Definition	Expected Sign
FDI	Foreign Direct Investment (millions of US dollars)	+
GDP	Gross Domestic Product Real (millions of US dollars)	+
EXP	Exports (millions of US dollars)	+
INF	Inflation (%)	-
EXR	Exchange Rate (dollars)	-
TRD	Trade (millions of US dollars)	+
IMP	Imports (millions of US dollars)	+
IVA	Investment from Asia (millions of US dollars)	+
IVE	Investment from Europe (millions of US dollars)	+
IVCA	Investment from Canada (millions of US dollars)	+

IVUS	Investment from United States of America (millions of US dollars)	+
IVT	Investment from Taiwan (millions of US dollars)	+
IVK	Investment from Korea (millions of US dollars)	+
IVJ	Investment from Japan (millions of US dollars)	+
IVC	Investment from China (millions of US dollars)	+
IVRA	Investment from Rest of Asia (millions of US dollars)	+

Note All the variables except INF and EXR are denominated in millions of $.

Exports (EXP) are expected to have a positive effect because the raw material products that go from Latin America to Asia represent gains and profits in investments made. Imports are also expected to have a positive effect because imports mainly from Asia bring the technology knowledge and technological products and machinery to Latin America. Therefore, the effect of overall trade volume (TRD) is expected to have a positive sign. On the other hand, both exchange rate (EXR) and inflation (INF) are expected to have negative signs of effect.

5.4 Data Sources and Sample.

The data of FDI, economic growth rate, Gross Domestic Product (GDP), Exports (EXP), Imports (IMP), and Trade (TRD) are obtained from the World Bank's database (WB), whereas the data of Inflation (INF) and the Exchange Rate (EXR) are obtained from the International Monetary Fund Database (IMF).

The data of investments from the United States (IVUS), Asia (IVA), Europe (IVE) and Canada (IVCA) for a specific Latin American country are from the national bank of that specific country (Mexico, Guatemala, Honduras, Costa Rica, Panama, Colombia, Peru, Brazil, Chile, Uruguay, Argentina, Bolivia and Ecuador). Moreover, the data of investments from Korea (IVK), Japan (IVJ), China (IVC), and Rest of Asia (IVRA) are also from the national bank of each Latin American country. Lastly, the data of investment from Taiwan (IVT) for a specific Latin American country are only from the national banks of the following countries: Mexico, Honduras and Panama.

Chapter 6

Estimation Results and Empirical Analysis Results

In the chapter, we will firstly describe our sample statistics and correlation between independent variables. We will then show the estimation results based on full sample, regions, and Asian countries, respectively.

6.1 Descriptive Statistics

Table 5
Sample Statistics Full Sample Variables.

Variable	Mean	Stardard deviation	Max	Min
Economic Growth	2.69230769	4.18809760	12.0000000	-18.0000000
FDI	0.1196741E+11	0.19576270E+11	0.102427228E+12	-0.215473E+10
GDP	0.3610965E+12	0.57052936E+12	0.261620158E+13	0.1000000E+11
EXP	29.6098901	13.4499897	78.0000000	11.0000000
TRD	4.06593407	2.83545897	14.0000000	-2.00000000
EXR	283.840659	680.472010	3695.00000	1.00000000
INF	62.0439560	29.3833162	167.000000	22.0000000
IMP	0.9969755E+12	0.123854281E+14	0.16716025E+15	0.4495795E+10

Note: Sample Size 1456, all the numbers except INF and EXR are measure by millions of $.

In table 5, we summarize the results of the sample statistics all variables that we choose for our study. The average economic growth rate is 2.69%. The highest rate is 12%, while the lowest rate is -18%.

Table 6
Sample Statistics Investment of the regions

variable	Mean	Stardard Deviation	Max	Min
IVUS	0.867422979E+16	0.116053285E+18	0.1552687E+19	-3588.00000
IVE	0.789078944E+11	0.105571745E+13	0.1505655E+19	-624.000000
IVCA	0.119692080E+17	0.121943758E+18	0.1505655E+19	-75296.0000
IVA	721102824.0	0.68210198E+10	0.6939645E+11	-5982.00000

Note: Sample Size 728, all the numbers are measure by millions of $

Table 7
Sample Statistics Investment from Asia countries

variable	Mean	Stardard deviation	Max	Min
IVK	12338.3810	56532.39951	259066.000	0.0000259066
IVJ	2839.14286	13001.4219	59582.0000	1.00000000
IVC	416609992	2.65910659	974708568	293524.000
IVRA	32334.006151481	148159.470	698955.000	1.00000000

Note: Sample Size 728, all the numbers are measure by millions of $

On the Table 7, we summarize the results made by the Asian countries.

6.2. Correlation Results

Before running regressions, we have to make sure that independent variables are not closely correlated.

Table 8
Correlation Matrix Full Sample variables

	COUNTRY	YEAR	FDI	GDP	EXP	TRD	EXR	INF
COUNTRY	1.0	-0.01	0.45	0.58	-0.32	-0.46	-0.02	0.02
YEAR	-0.12	1.0	-0.07	0.10	-0.28	-0.26	0.08	-0.27
FDI	0.41	-0.07	1.0	0.67	-0.20	-0.25	0.46	-0.06
GDP	0.54	0.1	0.67	1.0	-0.53	-0.5	0.36	-0.07
EXP	-0.32	-0.28	-0.2	-0.51	1.0	0.96	-0.31	0.07
TRD	-.46	-0.26	-0.25	-0.50	0.96	1.0	-0.29	0.07
EXR	-0.02	0.08	0.46	0.37	-0.31	-0.29	1.0	-0.03
INF	0.02	-0.27	-0.06	-0.07	0.08	0.07	-0.03	1.0

Table 8 shows that the correlation between Foreign Direct Investment (FDI) and Gross Domestic Product (GDP) is 0.67. It is obvious that the correlation between Exports (EXP) and Trade (TRD) is extremely high.

Table 9
Correlation Matrix Investment from regions.

	COUNTRY	YEAR	IVA	IVUS	IVCA	IVE
COUNTRY	1.00000	-.06093	-.08617	-.06093	-.08001	-.06093
YEAR	-.06093	1.00000	-.00794	1.00000	-.00738	1.00000
IVA	-.08617	-.00794	1.00000	-.00794	.95189	-.00794
IVUS	-.06093	1.00000	-.00794	1.00000	-.00738	1.00000
IVCA	-.08001	-.00738	.95189	-.00738	1.00000	-.00738
IVE	-.06093	1.00000	-.00794	1.00000	-.00738	1.00000

As show in Table 9, the correlation between Foreign Direct Investment from Canada (IVCA) nd Foreign Direct Investment from ASIA (IVA) is very large (0.95).

Table 10
Correlation Matrix Investment from Asian Countries

	COUNTRY	YEAR	GDP	IVT	IVC	IVJ	IVK	IRA
COUNTRY	1.0	0.5	0.02	-0.01	-.416	0.6	0.50	-0.202
YEAR	0.0	1.0	-0.41	0.12.	-.20	-0.29	-0.022	-0.114
GDP	0.02	-0.41	1.0	0.03	-0.32	-0.06	0.20	-0.202
IVT.	0.02	-0.19	-.42	1.0	0.37	0.51	0.042	0.602
IVC	-0.04	0.12	-0.32	0.378	1.0	0.561	-0.02	0.45
IVJ.	0.06	-0.20	0.10	0.51	0.561	1.0	-0.20	-0.29
IVK	0.01	0.29	-0.09	-0.109	0.126	0.020	1.0	-0.204
IRA	0.01	-0.27	0.11	-0.02	-0.329	0.421	-0.09	1.0

According to Table 10, Foreign Direct Investments from different Asian countries are not very correlated. For instance, the correlation between Foreign Direct Investment from Japan (IVJ) and Foreign Direct Investment from China (IVC) is only 0.56.

6.3. Regression Results

In the following subsections, we will present estimation results of four models for full sample, regions, and Asian countries, respectively.

6.3.1 Full Sample

According to estimation results summarized in Table 11, we find that FDI has a positive and significant effect on economic growth rate of Latin American country as we use OLS, Random effect model, and one-way fixed effect model. Moreover, exchange rate (EXR) is found to have a negative effect as we use random effect model, one-way fixed effect model, and two-way fixed effect model. Furthermore, imports (IMP) are found to have a positive and significant effect as we use random effect model and two-way fixed effect model. Lastly, GDP, Export, Trade, and Inflation do not have significant effects.

Table 11

Full Sample Regression Results Independent Variables.

		OLS Model	Random Effect	Fixed Effect Model One way	Fixed Effect Two ways
FDI	coefficient	0.2577D-09** (2.227)	0.2079D-09* (1.878)	0.293585D-09*** (2.790)	0.980230D-10 (0.935)
GDP	coefficient	-0.5982D-012 (-0.093)	-0.159D-10 (-1.031)	-0.926256D-11 (-0.959)	-0.143023D-10 (-1.006)
EXP	coefficient	-0.2987D-09 (-1.007)	0.4059D-09 (1.016)	-0.281476D-09 (-0.923)	-0.181953D-09 (0.476)
TRD	coefficient	0.15389497 (0.809)	0.12801384 (0.483)	0.16540067 (0.102)	0.8902443 (0.991)
EXR	coefficient	-0.046909 (-1.018)	-0.00371*** (-2.736)	-0.0016030** (-2.075)	-0.0016647* (-1.227)
INF	coefficient	0.04234131 (0.288)	0.17353603 (0.009)	0.06578612 (0.374)	0.10373237 (0.519)
IMP	coefficient	-0.27061D-10 (-0.557)	0.1456D-09* (1.896)	0.442427D-10 (0.750)	0.18466D-09*** (2.528)
Constant coefficient		-0.45161261 (-0.411)	-4.0705244 (-1.626)	-2.837229* (1.782)	-8.04950723*** (-2.867)
Degree of freedom		141			
Adjusted R square		0.1646943			
Simple Size		1456			

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

The results summarized in Table 12 suggest that all coefficients of investments from different regions are statistically insignificant.

Table 12

Full Sample Regression Results Investment from regions.

		OLS Model	Random Effect	Fixed Effect One way	Fixed Effect two way
IVA	coefficient	0.5723D-10	0.36066D-10	-0.333D-10	0.5804D-11
		(0.409)	(0.262)	(-0.239)	(0.53)
IVUS	coefficient	0.2519D-17	-0.7156D-18	-0.305D-17	-0.993D-18
		(-0.9997)	(-0.285)	(-1.170)	(-0.489)
IVCA	coefficient	-0.647D-18	-0.4085D-18	0.3734D-18	-0.617D-18
		(-.083)	(-0.053)	(0.049)	(0.103)
IVE	coefficient	-0.109D-15	-0.1016D-15	-0.304D-16	-0.600D-16
		(0.1787)	(-1.210)	(0.268)	(-0.676)
Constant	coefficient	3.00132059	3.01256016	2.95261664	3.014587
		(0.521)	(0.985)	(0.401)	(0.717)
Degree of freedom		141			
Adjusted R square		0.1646943			
Simple Size		1456			

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

In table number 12 the data of the results are shown by means of the regions, the results as corroborated are insignificant but still of them positive, in addition to this, also, the investments made from the United States, unlike the one that comes from Canada or even from Europe is higher, however, investment from Asia becomes positive and higher.

As shown in Table 13, investment from Korea has a positive and significant effect on the economic growth rate in Latin America. Table 14 shows that investment from Japan does has an insignificant effect on economic growth rate in Latin America. Results shown in Table 15 suggest that investment from China has a negative and significant effect on the economic growth rate in Latin

America. According to Table 16, investment from rest of Asia does not have a significant effect on the economic growth rate in Latin America.

Table 13

Full Sample Regression Investment from Korea

		OLS Model	Random Effect Model	Fixed Effect Model	Fixe Effect Model Two way
IVK	coefficient	0.38062D-05**	0.371562D-05**	0.315124D-05	0.280811D-05
		(2.218)	(2.137)	(1.381)	(1.147)
Constant					
	coefficient	2.11801850	2.13674405	2.31162371	2.47459508
		(0.479)	(0.320)	(0.655)	(0.017)
Degree of freedom	25				
Adjusted R-Square	0.2948				
Simple Size	182				

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level

Table 14

Full Sample Regression Investment from Japan

		OLS Model	Random Effect Model	Fixed Effect Model	Fixed Effect Model Two way
IVJ	coefficient	0.1453D-04	0.1474D-04	0.1588D-04	0.122130D-04
		(0.001787)	(0.0004787)	(0.000078)	(0.0001787)
Constant					
	coefficient	1.76066582	1.74450106	1.915764	1.9157
		(0.0313)	(0.0418)	(0.1223)	(0.12)
Degree of freedom	38				
Adjusted R-Square	0.576892				
Simple Size	182				

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

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Table 15
Full Sample Regression Investment from China

		OLS Model	Random Effect Model	Fixed Effect Model	Fixed Effect Model Two way
IVC	coefficient	-0.2538D-08**	-0.2531D-08**	-0.243763D-08**	-0.922511D-09
		(-2.207)	(-2.259)	(-2.035)	(-1.416)
Constant					
	coefficient	3.67673626	3.67374293	3.10565438	2.995042
		(0.937)	(0.997)	(0.300)	(0.140)
Degree of freedom	38				
Adjusted R Square	0.4358428				
Simple Size	182				

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

Table 16
Full Sample Regression Investment from Rest of Asia

		OLS Model	Random Effect Model	Fixed Effect Model	Fixed Effect Model Two way
IRA	coefficient	165214.0695	217854.029	792713.30	804654.5579
		(0.7544405)	(0.408)	(0.202)	(0.874)
Constant					
	coefficient	-0.4240D+12	-0.445D+12	-0.516D+12	-0.683066D+12
		(-0.793)	(-0.788)	(-0.563)	(-1.076)
Degree of freedom	37				
Adjusted R-square	-.2427779				
Simple size	182				

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

6.4 Taiwan regression results

We run a separate regression for Taiwan because the data we use only includes 3 countries. As shown in Table 17, the average investment from Taiwan is 245030 million dollars.

Table 17
Sample Statistics Investment from Taiwan

variable	Mean	Stardard deviation	Max	Min
IVT	245030.207	488470.259	1692108.00	-64.200000016

Note: Sample Size 42, all the numbers are measure by millions of $

We run a separate regression for Taiwan because the data we use only includes 3 countries. As shown in Table 18, the average investment from Taiwan is 245030 million dollars.

Table 18
Full Sample Regression Investment from Taiwan

		OLS Model	Random Effect Model	Fixed Effect Model	Fixed Effect Model Two way
IVT	coefficient	3.27031D-05**	0.32356D-05**	-0.114887D+09	0.279941D-05**
		(2.149)	(2.190)	(-1.119)	(1.909)
Constant					
	coefficient	0.9910D+14***	0.699977***	7.20784136	104.864770***
		(2.891)	(2.965)	(1.374)	(2.619)
Degree of freedom	25				
Adjusted R-Square	0.2948				
Simple size	182				

Note: T ratio is in parenthesis *10% significance level **5% significance level, ***1% significance level.

In base of the table 18, we can see that the results from Taiwan investment in some numbers are positive and negative, and the same time some of them still significance at 5% and 10%, we explained the social reasons and the conditions in chapter number 4, However, there is a still activity and movements to impulse the foreign direct investment in the region.

Chapter 7
Conclusion

To conclude our study we can show 3 general conclusions, the first is that foreign direct investment is really important for the economic growth of Latin America based on table 11, as described in chapter 4, the approaches are usually different, in the case of Mexico investments are concentrated in the manufacture of automobiles and technological products, in Central America in the purchase of agricultural products such as bananas, coffee, cotton, sugar among others and South America is concentrated in the extraction of raw materials such as metal, copper, silver, gold, iron, tin, which the numbers support investment concentrations.

The empirical analysis among the Asian countries in table 12, Korea and Taiwan positive impact, since their technological, automotive and electronic services products collaborate in the links of production and strengthening of value chains, otherwise China negative and significant since the products that enter the region come to compete with regional products, in addition the negative way in which it develops is usually given to the extraction of raw materials, especially oil, copper, metal, silver, tin and other products that do not produce positive impacts on profits for Latin American countries.

And finally, in the cases of Japan, it doesn't have a significant impact, this corresponds to the fact that recently its investments have remained static according to the investments that have been made, with other actors taking the place that it had been doing, and in the case of the rest of Asia, the impact in the region is not significant, because recently it is in an economic takeoff and a visualization with a view to connecting regional and global markets.

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