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Analysis of Foreign Direct Investment in
ASEAN Countries

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ABSTRACT

Foreign Direct Investment (here in after referred to as FDI) has played a role of fundamental importance for developing countries, changing not only the economy but also having a significant impact on social factors. The following research analyzes the cause and effects that FDI had in the period between 2003 and 2017 in the member countries of the ASEAN group. The countries analyzed have seen benefits in terms of capital resources and technological know-how, with flows not coming only from neighboring industrialized countries, such as Japan or China but also from more distant countries such as the United States or European countries (Diaconu 2014). The aim of the thesis will therefore be to build a discrete economic model of the Conditional Logit type, to understand the main reason and determinants leading Foreign investments in ASEAN Countries. To move towards the construction of the model, the research will be structured in the following way. Initially an overview of the main characteristics, definitions and history on FDI and Multinational Enterprise will be provided, followed by a focus on the 10 members countries of the ASEAN group, to better understand what will be the most significant determinants for each country. An analytical study of the trends and evolution of FDI in the area will be given, with the use of data provided by the database fdiMarkets of Financial Times, which will cover both a general analysis of flows and the composition at the industry level. In the last two chapters the most significant determinant impacting on FDI flow will be defined, so we will be able to move on the construction of the econometric model, assessing the choice of FDI location among 8 ASEAN countries chosen for the analysis. Necessary conclusions will be finally drawn based on the achieved results by the study carried out.
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1. OVERVIEW ON FDI AND MNE

1.1 INTRODUCTION AND SOME DEFINITIONS

Why does a firm break the national border and decide to become multinational? And what are the key factors that drive those changes in the business model of most of the important firms in the world?

The multinational firm, and his strict bond with FDI, has been one of the strongest forces in the economic globalization, the latter in particular according to Laura Diaconu (2014) have played an important role in the economic development of the South – East Asia over the last two decades, principally as source of technological know-how. The wide and growing diffusion over the year has been a center of studies in the literature not only for the changes brought to the economic dynamics, but also to the social ones in the countries that found themselves to accommodate the activities of the multinationals. For a more in-depth understanding of the factors that drive multination companies to make investments in the ASEAN area, is good to clarify on the two concepts often used as synonymous of "Multinational Companies" and "FDI" and to explore how these have evolved over the course of the last century.

Plenty of authors have tried to give a perfectly fitting definition to “what are exactly a foreign direct investment”; however, is possible to figure out a good and clear definition in literature, from the definition of OECD (2008). It define occurrence of an FDI relationship, when an investor in one economy has an ownership interest giving a significant degree of influence or control over the management of an enterprise in another economy. From convention according also from the glossary of OECD, it is deemed that direct investment exists when an investor owns at least 10 per cent of voting power. FDI is associated with a longer-term deal respect than other forms of investment in foreign countries, and often involves the provision of new capital and a transfer of technology. In a nutshell, relationships between entities within an MNE are FDI relationships, whose number and importance has grown with globalization. Is so possible to perceive how there is a close link between the concept of the Multinational Enterprise and that of FDI, since
the companies that want to expand, start new facility or decentralizing activities use the FDI to acquire competitive advantages in the target countries. The definition of Multinational Enterprise, share some similarity with those about FDI, From Barba, Navaretti and Veneables (2003) MNEs are firms that own a noteworthy equity share, typically more than the fifty percent, of another company operating in a foreign country. The “typically” is not casual, since The minimum share threshold necessary for a MNE to be defined “Multinational” might be different from the various country, other suggest the 10% for instance, but in a nutshell, the fundamental element is that the company exercises significant control over the activities undertaken in a foreign state. In the matter of fact the control of decentralized activities It allows the company to acquire a greater competitive advantage, as the presence of branches located in different parts of the world guarantees greater flexibility towards certain factors such as the cost of production activities and allows to better manage changes in the output’s demand. FDI and Multinational Enterprise change the labor market, becoming more competitive, and have effect of the bargain power of the various actors in the market. However, this is not always linked to benefits for the host country, but it can also bring negative effects not only on the economic level. In the matter of fact the same study of Barba-Navaretti assess the feeling about MNE’s as mixed, in particular general public and policy makers see them either as welcome bearers of wealth and know-hoe or as unwelcome since they might have effects over national culture. Is needed now to clarify how these have evolved over time and how the perception towards them has changed, under various aspects and negatives, to then define the types and effects of FDI.
1.2 A GLANCE ON HISTORY OF MULTINATIONAL ENTERPRISE

Through literature and economic history the question about why Multinational are so important arise plenty of time, and plenty of authors and papers try to give a reasonable explanation about this important phenomenon that has grown with incredible rapidity in the last two centuries. However the question does not stop at a blind alley, but opens up a whole series of questions around the central topic that lead, not only the authors, but the entire social system to question themselves on the two sides of MNE's coin mentioned in the previous paragraph: Negative effects that they bring and the positive ones. In order to shed more light on these two aspects, it is good to provide an overview of the history of multinational companies, and how this has changed in the present with respect to the past, through an expansion drove by the newly introduced FDI.

1.2.1 MULTINATIONAL ENTERPRISE: THE PAST

The concept of multinational enterprise has root far before the born of the first ever enterprise the first commercial exchange abroad. The activities of trade came from still before the idea of “national” and so before trades could be idealized as international.

Is possible to find ancestors of multinational companies, as we understand them today, also in financial activities, carried out outside the borders, by important families of the past centuries, for instance in the fifteenth-century in Europe there were about 150 Italians bank operating that could be considerate multinational at the time, House of Medici were one important example. John H. Dunning (2008) recognized it as first evidence of the phenomena, another important following example is the international organization of the Dutch East India Company, founded in 1602 and its agreement that allow the Generale States of Netherlands ot carry out Colonial activities in Asia, (Deng, Higgs, & Chan, 2009).

From those firsts manifestation is possible to find out a common organization, a common infrastructure and peculiar characteristics that will make companies addressed as “multinational” in the centuries to come: the strong hierarchical infrastructure, the multi-ethnic workforces, creating value in multiple locations and strategies for gathering new
resources and accessing new markets. In fact At the same time the same structure occurred in other companies established, such as the British East India Company, that pursue the aim of promoting commercial activities or territorial acquisitions in the Far East, Africa and the Americas (Deng, Higgs, & Chan, 2009) However the definition of MNE’s has been starting to concretize from the 19th century, as consequences of the industrial capitalism and the developing of the real system of enterprise. In the matter of fact the industrial revolution gives a real boost to the developing of the multinational companies as they are understood today. In the modern era, there was a widespread diffusion of international activities and the creation of companies operating abroad, due to the benefits and innovations brought by the two Industrial Revolutions.

We have seen the birth of important companies and new industries, such as the arise of automotive market. After that good period for enterprises there was a slowdown in foreign investment due from First World War. They did not guarantee political and economic stability; European multinationals start focused their efforts in home country’s trading. The post-war period however was marked by a period of growth thanks to numerous reforms on the international trade front and ever greater political stability. The real emergence of multinational companies was not directly following the two world wars, G.Jones (1996) & M.Wikins (2009) have clearly demonstrated that FDI and the modern multinational emerged in the second half of the 19th century. Up until this point much international activities was sporadic and opportunistic and rarely long-lived. Direct investment during the 19th century was primarily concerned on extraction of raw materials, but by mid-century FDI in others industries activities, such as manufacturing, have shown a significant growth.

In 1960 we got a first evidence of “Multinational” as understood today, David Lilienthal define a base for the term defining multinationals those firms had the peculiarity to organize and coordinate activities by crossing home country’s boundaries (Goldstein and Piscitello, 2007)
1.2.2 MULTINATIONAL ENTERPRISE: TODAY

In the modern age the situation of multinationals has been quite unsteady, due facts such as political tensions in the Middle East and an uncertain recovery of Japan and countries of the Euro-Zone. One of the most significant changes has been shown from foreign service companies that consolidate considerably, almost quadrupling the flows in the mid-1990s compared to the post-war period. The 2004 shows a worldwide recovery, but FDI flows have especially seen as protagonists more developed countries, according to the Report of European Central Bank the EU and other advanced economies attracted between 60% and 70% of total investment by Multinational enterprises. Among the development countries, central topics of our research, the first evidence in the modern age was China, ranking fourth for attractively to foreign investors. However part of the investments in the modern period were export-oriented, with the aiming of carrying out activities of production destined for export, while other consistent part of the investments were aimed at satisfying the local market. According to data from UNCTDAT in the first decade of the new century we find out oil companies as more fortunate, while car companies following the boom are classified as not rally appreciated on the financial markets. Outgoing investment by multinationals, however, remained a phenomenon strictly linked to the North Atlantic Area, with the exception of Japan.

The United States, maintained their primacy for a long time, but their share in the first decade gradually decreased. In terms of financial operations, the last twenty years have been mostly dominated by international consolidation and concentration operations and acquisitions, affecting all types of markets and creates new ones. This in particular has affected emerging economies, such as that of Asia for example, making them register a completely unpredictable growth. One of the main reasons for this mutation has also been the emergence of relatively small businesses, which have managed to transform themselves from small enterprise into global players, in order to adapt within the new constrains in the market. The Korean company Samsung for instance which has become the market leader in the sale of telephony and household appliances. Furthermore, to date, the implementation of political and economic stabilization programs
and the liberalization of services have allowed also developing economies to open their markets to foreign investment.

1.3 FDI: AN OVERVIEW

The FDI are part of a business strategy aimed at guaranteeing an important overseas expansion.

As shown in the table in Figure 1. Underlying, the FDI have seen significant growth from the second part of last century, also due to the greater stability derived from the post-war period and the emergence of new economies (Singapore, for example, among the states of our interest) that have embarked on the path of relocation of own production activities. Market agreements and political agreements have also played a very important role in their development; in exchange agreements for example a very useful tool has been found to stimulate the growth of FDI. An important example is the North Atlantic Free Trade Agreement, the world's largest free trade agreement, it increased FDI between the United States, Canada, and Mexico to $ 452 billion in 2012. That was just one of NAFTA's advantages.

The reference macro-sectors for the new trend in FDI have seen above all those of raw materials and services, with an outflow that comes for the 88% from Development countries and an inflow of 69% in turn in other development countries. (World Bank Report, 2017) To get an even more in-depth picture of the magnitude of the economic impact that has carved out around the FDI, just take a look at the OECD data that, even before the collapse due to the 2001 crisis, had reached a world turnover of 1.3 trillions of US Dollars.
1.3.1 MAIN CHARACTERISTICS OF FDI

A foreign direct investment is an investment made by a firm, or individual, in one country with the interest of have a return from a business located in another country. According to the OECD definition an FDI also shows the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in a different economy context from the one of the direct investor. It implies a long-term relationship between the investing enterprise and a noteworthy degree of influence over management activities. Even if voting power is independent from the amount of shares owned (for instance 10% of ownership doesn’t mean have more voting power than who has less then 10), as already mentioned, according to the Glossary of Foreign Investment of OECD the 10% is generally accepted as the threshold for an investment to be considered an FDI. But as we’ll going to specify the FDI does not concern just the initial amount of capital but even all the reinvested earning coming from the initial investment.
Another important concept is the difference of direct investment with investment of portfolio, as we’ll focus later, in such type of investment an entity such as an investor just purchases equities of another company, the investment is motivated by income of those financial activities rather then income for internal activity with an equivalent risk. However, unlike the portfolio's investments, the countless benefits of Foreign Direct Investment in the economy of the host countries are also fundamental. Differently the latter and as already mentioned, FDI influence the host country through: technological spillover, increase the formation of human capital, contribute to globalization and increase business opportunities. All that translates into aid for economic growth.

1.3.2 FDI BY STRUCTURE : HORIZONTAL AND VERTICAL

Some definitions are essential to understand the various type of FDI we are going to focus on, in literature is possible to find out an accepted classification of the kind of investment according to the specific return that the controller enterprise want to obtain in the host country.

The first classification, probably the most important, concern the distinction between horizontal and vertical FDI. Horizontal FDI represents in quantitative terms the most relevant phenomena, even if the role of vertical FDI is growing up in the last years. Alexander Protsenko (2003) provide an exhaustive definition of not both kind of investment: Vertical FDI refers to those multinationals that fragment production processes geographically. It is called vertical because MNE separates the production chain outsourcing some value’s chain stages abroad. In those Horizontal, from Protensko, the firm duplicates the same activities in different countries, in order to lowering the cost related to transporation and entry barriers. In a nutshell Horizontal expects basically to duplicate a production stage; Vertical instead see a whole transfer of a phase of the production process.

As mentioned before Vertical FDI have become more famous in the last years, but the critical quantity in terms of purpose of the investment belongs to horizontals.
An example to reinforce the previous statement can be found in developed countries, which are very often see both an outflow and an inflow of foreign investments, showing that access to a specific market is far more significant than the reduction of production costs.

According to Markusen (1984) horizontal FDI entail a trade-off between plant fixed costs and trade costs. When the targeted country is small, the potential savings in trade cost are insufficient to offset the fixed costs of setting up a production facility there; hence export are chosen over FDI as method as serving market abroad. His model is defined as the “Proximity – concentration hypothesis” that explains the occurrence of FDI in case which the return and benefit of production in a foreign market surpass the loss in an scale economy by producing in one plants. For ours research will see vertical FDI as a significant element, since vertical FDI are more easily to be found out in developing or small countries. In the matter of fact countries usually engaging in horizontal FDI, barely shows a significative difference in size (FDI in USA for instance); in the other hand in vertical models the home country is such more bigger than the host country and the decision of where locate the production become definitely more relevant in order to minimize cost. Especially in developing country production costs are given as lower than in the home country, in plenty of European enterprise in fact have located entire production phases abroad.

The Italian motor company Ducati is a relevant example, producing a significate percentage of their motor vehicle in ASEAN countries since the significative opportunity to minimize cost.

1.3.3 EXPORTED ORIENTED PLATFORM FDI

A third classification of FDI important to define and understand is those investment undertaken to develop an export oriented–platform. Their importance in the global and developing countries economy is underlined by Hanson, et al.(2005). Export-oriented Platform Investments can be showed as an high level representation of Vertical FDI but for our research is fundamental of going into the concept since economy of ASEAN
countries have raised up significantly in the last decades as export-platform of third countries.

Basically the export-oriented are investment which have the main purpose of export the final outcome rather than serve the local market; James Markusen (2003) defines this kind of FDI the most efficient way to reach markets in third countries rather than product directly in the host or home country. To give an idea of their importance, it is enough to see how, in the early 2000s, 36 percent of US production was exported, about a third of this was then re-exported to the United States while the rest was destined for others countries.

The Export-Oriented platform investments are associated with both horizontal and vertical FDI, in fact when production takes place locally, this is associated with a horizontal investment, when instead it is re-exposed in the country of origin it is associated with a vertical FDI.

Over the years the phenomenon has seen a sharp increase. This is following the growth and emergence of trade blocks with low internal trade barriers and the presence of high barriers; on the other hand, the MNE have tried to remedy this problem by building branches of their production plants in the target country, to produce within the area with the trade block and to derive economic benefits. In literature plenty of authors tries to give an explanation of the attractiveness of the export-platform FDI and about the differences between the purpose of the FDI, oriented toward third countries or toward the home country. A Huge contribution is given by Motta and Normann (1996) who find that improved market access within trade block, lead to export platform FDI. It make the country more able to reach the majority of markets within the block through export from one plant. But in our study case is fundamental to mention the study of Kumar (1998) who provide a differentiation for export platform FDI oriented toward the home market and that oriented toward third countries. Investment destined to come back in the home market are undertaken in order to exploit cheaper factors of production, making relevant just trade cost between the two countries involved.
1.3.4 FDI BY PURPOSE: DUNNING’S DEFINITION AND OLI PARADIGM

The distinction made up before between vertical FDI and Horizontal FDI is only one of the accredited ones in the literature. While the latter classifies the types of FDI by structure, one of the most complete and accurate descriptions of the phenomenon is provided by Dunning (1993), where he makes a distinction of the type of FDI by the purpose for which they occur.

First of all is necessary to assess where and why this classification come from. The classification, born from the famous OLI Paradigm of John Dunning (1979). Also known as Eclectic scheme of Dunning, he match together all the elements of previous classical study about FDI and MNE. Dunning sets up three main fields of analysis for which a company decides to invest all year round instead of in the country of origin; OLI is in fact an acronym for Ownership, Location and Internalization, the conditions that the multinational company must take into consideration before undertaking an investment. In detail:

1. **Ownership**, The benefits of increasing the size of the company, i.e. the technological innovation that results from it, economies of scale or changes in the organizational structure.

2. **Location**, The advantages that can be gained from the host country, for example in terms of resources, labour costs, infrastructure, geographical proximity, etc.

3. **Internalization**, advantages over the control of its internal activities. These benefits are primarily related to transaction costs.

Once defined the impact of the three category settled up by Dunning in the eclectic model is possible to classify FDI by their first purpose for why a MNE decide to undertake it. The 4 type of FDI are: Resource Seeking, Market Seeking, Efficiency Seeking and Strategic asset Seeking. The first two are often assessed as Vertical FDI, Efficiency Seeking is related to Horizontal FDI, while the latter is often handled as an external case.
Resource Seeking: Are the main reason a multinational enterprise might have the aim of invest in a foreign country, and is also in this framework, one of the most common investment undertaken in the region of our interest. Basically an investor decides to invest abroad to guarantee himself the supply of resources not of easy access in the home country, or to have access to them at a lower price. Labor force itself is considered as a resources, in the matter of fact is easy to see how huge European or USA MNE’s decentralize their production in developed country, cutting components of the cost of production by labour force. However resources have a broad meaning and are considered as resources, raw material and natural resources, but also technology and know-how.

Market Seeking Investment: A company can decide to undertake investment in a foreign country, obviously to enter a new market and profit from it. In the vision of John Dunning (1993) the major driver of a Market seeing is to exploit economies of scale or from the will of grow up particular products in the targeted market. Market seeing FDI arise also where the access to the target is limited by barriers, high cost or local government so the firm could operated within the border to overcome those issues. Enterprise could enter and maintain the production in the host country also for the following reason: Accustomization: the necessity of fit the product with the local culture; Lowering cost, like reducing cost of logistic, Necessity for proximity to supplier of customer, physical presence in a new market. Market seeing could be considered as horizontal, because implies the building up of a new facility.

Efficiency Seeking.
This type of investment is made up when investors are interested in lower cost of inputs. Looking for countries able to provide productive factors at lower cost. To pursue this goal, the multination company seeks an increase in efficiency through various production strategies, such as increasing economies of scale or establishing economies of purpose.
However, the search for efficiency is also pursued taking advantage of different factors such as economic systems, policies or market structures by concentrating production in a limited number of locations to supply multiple markets.

- **Strategic Asset Seeking**
  The last category is often analyzed as a separate case. The reason for this type of investment is mainly to acquire new skills or technologies that are not internal to the company, this leads to giving precedence to new assets rather than those already existing internally to the firm. In the study of Franco, Rentinocchini e Marzetti (2008) motivated why this kind of FDI is taken apart from the others three, since it does not fit well with the OLI paradigm. In the matter of fact in the building of the OLI paradigm, motivations are not considered but they are ex-post determined.

### 1.4 EFFECTS OF MNE AND FDI ON THE HOST COUNTRY

FDI and Multinational companies play a central role in the global economy, but they also undermine the economic and social structure of the countries that internalize their activities.

Klaus E. Meyer (2003) address MNE’s as fundamental for the world economy creating a direct link between rich and poor countries. This happen transferring capital, knowledge, and value systems across borders. Their interaction with organizations and citizen of the host country generate positive and negative externalities for all the stakeholders. In consequence they have become focal points in the popular debate on the merits and dangers of globalization, especially when it comes to developing countries such as South-East Asia. Foreign Direct Investments, as already mentioned, can bring numerous benefits, in particular on developing nations. However often emerges discontent around their activities, linked to their too flexible code of conduct that leads to exploit host countries, instead of helping them in social and economic development. Obviously the magnitude of the effects is closely linked to the size of the investment, and despite the disadvantages present, they provide offer incentives proportional to the size of the MNE investments, like tax reliefs or subsidies. John Dunning (1992) in his book Multinational...
Enterprise and Global economy, introduces a clear distinction between the effects, both positive and negative, brought by the MNEs and their activities in the host nations through FDI.

The effects are cataloged as Direct and Indirect, Dunning defines the direct effects as deriving from the direct start of a new investor or from an expansion of the activity of an international company, for example, change of the commercial structure and of the balance of payments, technology transfer or change in the productivity of work. Indirect effects are identified as externalities that also involve local businesses that are in contact with the multinational company. In turn, Dunning provides a further classification, but related only to the indirect effects of MNEs on the host country. In fact, it distinguishes indirect effects as pecuniary and non-pecuniary; the former are defined as such when they emerge related to the vertical links of the product value chain, or when the MNE influence is the demand or offer of a product from another company on the market. Non-Peculiarities occur when the productive knowledge deriving from the activities of an MNE spread in the host nation, in the literature this phenomenon is often defined as Technology spillover, it can manifest itself through the Reverse Engineering or the labor market changes for example.
Figure 2. Dunning classification of FDI’s effects, *(Source: Elaboration of Peter Pavlinek, 2017)*

Figure 2 provides a representation of Dunning's distinction; we will now go on to highlight the advantages and disadvantages brought by the latter within the host countries.

1.4.1 POSITIVE ADVANTAGES AND BENEFITS

- **Improved Balance of Payment.**
  
  Inbound FDI directly pops capital directly within the host country, and investment promotes exports, as multinational companies often decentralize production in order to use it as a base for activities. subsequent export.
• **Increase of People Employed**
  The opening of new facilities leads to an increase in the demand for labor, in countries with high unemployment rates, governments favors the entry of MNE.

• **Technology Spillover (Non pecuniarity)**
  MNEs from more industrialized countries that settle in developing countries, spread new technologies and educate the local workforce to use new technologies.

• **Reputation**
  More Multinationals in a Country Can Give a Positive Signal of the Country's Well-Being

1.4.2 NEGATIVE EFFECTS AND DISADVANTAGES

• **Increased competition within the host country**
  Competition in the country completely changes a cause of the ability of multinational companies to produce more efficiently and more cheaply in the host nation; moreover the MNE manages a large flow of capital having more bargaining power than local businesses.

• **Effects on Environment**
  Multinational companies will always try to produce in the most convenient way for them. Anh Hoang To and Dao Thi-Thieu Ha (2019) show with their study that FDI and MNE often lead to an environmental degradation, often leaded by violating or not regularly adhering to environmental standards.

• **Transfer prices**
  It is a practice aimed at reducing the taxation on the activities that it involves in the transfer of different parts and components between different states with different taxes and prices. This mostly happens in developing countries where there are low levels of taxation, so the product is then transferred back to a higher price.
• **It favors the diversification of social classes**
  Multinationals only more likely to hire local employees for unskilled jobs.

• **Cultural changes in the host nation**
  Multinationals can change the tastes and demand of the market, completely distorting the traditions and culture of the host country.

• **Possibility of poor financial advantage.**
  If the multinational company reports the profits in the country of origin, the host country does not receive many tax benefits from the research activity.

1.5 BRIEF FOCUS ON MNE’S AND FDI IN ASEAN BEFORE 2000S

Before to move to the next chapter will be provided a little focus of what was the history of Multinational enterprise and Foreign direct investment in the ASEAN area, basically the central topic of the research. Providing an overview of the history of the multinational companies in Asian countries is not a simple task. The relative youth of the ASEAN member states, the instability and the scarcity of resources made the process that led them to become attractive for foreign markets particularly long. However Multinational and as consequential FDI in South East Asia, in the past 20 years has been one of the major driver of development of South East Asia, both for carrying into the area capital and specific skills. Just to give an idea, according to Laura Diaconu (2014) in first half of the 90’s the inflow of FDI in South– east Asian country have reached about 8% of the global Foreign Direct Investment, being placed among the world largest recipients in the 1990’s. However, the recent history of FDI has not always shined, in particular between 1998 and 2001 the inflow of investment have faced a significant downturn cause a regional economic collapse, leading a fall of investment of 2.76 percentage point in 2001. But just after the black ages , ASEAN countries were good enough to boost again the inflow of FDI, making such states again appeasable for foreign investment and more resilience against shocks driven by external factors. Back in the past again, before 1990’s
precisely, South East Asia was not so able to attract investment from Foreign Enterprise, due to low innovation or political issue; for instance the situation of Philippines that before the 90s’s was the state of the area less attractive for enterprises. The country in fact, for reason of political instability, did not welcome foreign investors. These factors making in the second half of 20th century the ASEAN successful in attracting Investment by multinational only as export platform, basically for a problem of regional integration and very potential small market as customer. Countries such as Singapore, that were born only on 9 August 1965, were too young to attract big investor like USA or European countries; but emphasis on rapid economic growth, support for entrepreneurship, control of internal democracy and close relations with China, were the political directions of the new course toward the attraction to well developed countries.

The platform export strategy was revealed so efficient that the member of ASEAN were ready to move on a manufacturing-based countries, driven by the quick expand of export economy.

The huge raising in inflow of FDI however had the major impact between the around the 80’s where industries settled in Japan, China and generally with a well developed economies, start to move their industries in foreign countries in order to cut the cost, escape from the appreciation of countries and access to many OECD markets. A good example of this shifting in the business investment was for sure Indonesia. While other representative of the major inflow of FDI in the ASEAN at the time (Thailand, Malaysia and Philippines) have been continuing to be more attractive to export oriented, Indonesia, during the oil crisis of the 1970s, benefited from the rise in oil prices, whose export earnings contributed to high rates of economic growth. Further reforms in the economic field towards the end of the 1980s attracted new foreign investments, particularly in the manufacturing, oil and gas sector, this lead From 1989 to 1997 the Indonesian economy grew at an average rate of over 7% per year, until the big financial crisis of Asia in 1997 according from data of World Bank. The 1997 financial crisis ended up the Golden Age of ASEAN in attracting Foreign Direct Investment In the next paragraphs will be examined the FDI phenomena in most recent era, after the crisis of 1997.
1.6 CONCLUSION ON FDI AND MNE

The chapter wanted to give an overview of the concepts of FDI and multinational enterprise, going to pave the way towards a more specific analysis of how they fit in the ASEAN context. The concepts introduced in the chapter will be used several times in the next, where an overview of each individual state of the analysis area will be provided. The overview will aim to clarify the economic situation of each country and provide a high-level description of how the investments of the multinationals are allocated in each of them.
2. THE ASEAN COUNTRIES: AN ECONOMIC OVERVIEW

In the following chapter, we will examine in detail the economies and structure of the 10 countries belonging to the ASEAN area. The area under analysis was fortunately lucky in the last few years, in Figure 3 there is a diagram of the trend of GDP in the period between 2003 and 2017, elaborated with the data provided by the World Bank.

Figure 3. Total GDP in ASEAN countries 2003-2017 (Elaboration from World Bank Data)

The trend in terms of growth is particularly positive. These economic performances are attributable to various factors, such as the various national reforms and efforts undertaken by individual countries to promote growth. This is only one of the determinants that allowed South-east Asia to move from a low income economy to a middle and high income economy. However there is no lack of problems in the area, linked by general problems of developing countries, a retreat of democratic institutions. Will follow in the chapter a detailed analysis of each country; from a review of literature and assessments from data provided, as main source, from annual CIA World Factbook Report and World Bank Reports.
2.1 BRUNEI

Brunei is considered a tax haven. Despite its small size, it is a rich country and relies mainly on the export of crude oil and natural gas. According to CIA World Fact Book (2018) and World Bank Data (2018) the GDP in 2018 reached 13.5 Billion of dollars, ranking the country as the 134th country for nominal GDP but with an per capita of 30.6 thousand dollars. The second result is significantly high, since the Brunei is a particularly small country, not even touching the million inhabitants; such high per capita GDP ranks the country as the 34th of the world in GDP per capita, significantly higher than the ASEAN 10-average. Differently with others member state of ASEAN, but as we can figure out in Singapore that like Brunei is a highly innovative and industrialized country, the state no longer basing its economy on the primary and agricultural sector, which has an impact on GDP of only 1.2% (2017). The highest impact is signed by industries with a share of 56.6% on the total GDP in particular, as mentioned before, the oil and gas industry is the principally source of income for the state. (CIA data World fact book, 2017). The remaining part of GDP is impacted by services for 42.3%, sector in which the government it’s pushing a particular effort to reach a target economic diversification, in particular on Business Services, Financial Services and Hospitality. A key factor of economic success of Bruneian is the focus by the government about the enhancement and improvement of small businesses, in particular those firms with a number of employees including 5 and 100, with the aim of diversifying the economy and making it less dependent on the export of gas and oil. (OECD, 2018)

However, regardless of GDP performance, Brunei is not one of the best countries in the ASEAN group in terms of attractiveness to foreign investors. Reid Kirchenbauer (2017) in his paper, points out that Brunei's heavy dependence on oil and gas makes it incredibly sensitive to price fluctuations on those products, and also the country's economy does not offer a diversified range of opportunities to Investment. In addition, Law & Regulation makes it a non-friendly country for foreign investors, in fact investors cannot have private property in Brunei. Another reason that does not attract foreign investment is the strong presence of Muslim culture creating some cultural fit problems.
2.2 CAMBODIA

The Cambodia according to the World Bank Report (2018) is one of the five countries of the Asian-Pacific area realizing in 2017 one of the highest economic growth, of about 7% with an estimated value of 19,4 Billion Dollars. Although the country may still be present as a low income economy, an important goal that boosts the country's incredible growth can be found out to 1989 when the country open its economy to foreign market, starting a positive- constant growth.

The open market economy has significantly improved trade with foreign countries, in fact Cambodia shows has a positive trade balance. To give an idea of Cambodia growth, at 2016 the main activities of Cambodia showed the following growth result: Manufacturing Activities of 7%, Rice production of 43%, footwears of 22%, an substantially increase of gas and oil market. (Eglises d’Asie, 2016) From the presented framework is easy to assess that agricolutour and manufacturing represents the main source of income for the economy of the country.

According to Arno (2013) another important industry is the garment one, that represents the largest portion of Cambodia's manufacturing sector, accounting for 80% of the country's exports. The just cited industry is critical for Direct Investment of Foreign Enterprise, in fact in 2010 236 garment export-oriented factories were operating, with 93% being foreign direct investment. Taiwan holds the highest percentage of ownership of garments Factories, with 66 factories and, followed by China with 44 and Hong Kong with 39 factories. The first Not-Asian country for number of owned factories in Cambodia is USA, with 9 factories actives in 2010. (GMAC, garment association manufacturing of Cambodia).

The Industry with 600000 employees position itself as the second biggest in the countries, with just the agricultural industry ahead. Is not a case that the most two competitive industries are based on low- skill, labor intensive activities, the country in fact is able to supply an huge number of low- cost and low skilled employer, since the major part of the Native Cambodian work in condition of poverty and has poor or null education. This is attractive for Multinational Enterprise looking for FDI activities optimizing cost of labour reduction.
According to OECD Data Cambodia shows also a positive trade balance of $3.82 bilions., making the country the 74th largest country for export.

2.3 INDONESIA

The Indonesia is the biggest Country-Archipelago in the world and with a population of 267.663.435 (World Bank, 2018) is the fourth populated country all over the world. The Interest toward the Indonesia market has old roots, when the country, reign of Srivijaya at the time, had already started commercial exchange with China and India.

Indonesia leads itself to a stunning growth in the past years, becoming just in 2015 the eight economic force in term of GDP relative to the purchasing power, this stunning achievements in part due to the exponential growth of Indonesian population just described before. Moreover the most relative facts that describes the event it was the birth and strengthening of some industries in the country, but also the entry into the country of foreign multinational companies, some already strong innovative services in industrialized countries and the incredible increase in GDP per capita. The transformation to an high-value country also happened as a result of major changes in the structure of the country's economy. Indonesia, in fact, in recent decades has recorded in line with other countries in the ASEAN area a sharp decline of workers in the agricultural sector, in favor of an increase in employees in the industrial and services sector, but also for a change in the radical structure of exports. According to Paige (2013) agriculture has still huge impact on GDP contributing for an 14.43% of the total and employing the 41% of the national workforce.

Palm oil production is Fundamental of the economy of Indonesia, in fact Before 2015 it resulted as one of the most important product for export, with others natural resources such as natural gas, oil, wood, carbon, rubber and gold. The availability of those resources made Indonesia an important center for Multinational Enterprise interested in Resource Seeking FDI.

After 2015 Indonesia had a radical change toward the structure of foreign commerce. The Country has become a major importer of oil, refined and crude, but still maintaining an
important commercial value regarding exports of natural gas and coal. Indonesia has also seen significant growth in the manufacturing industry, but it has failed to have a significant impact on markets such as automotive or ITC products that are still dominated by foreign MNE. However, while the more complex functions of the supply chain (R&D, Marketing) are still carried out in the countries of origin of multinationals, in Indonesia are centered the assembly and production phase of simpler components, either for exporting and selling internally.

The Direct investment in Indonesia come principally from China and Japan, but also smaller European countries as Austria and Belgium have started an outflow on FDI toward the Country, since they have understood the increasing potentiality of the Archipelago (in the next chapter will be provided an in-depth analysis). Italy has started looking for economic opportunity into the Indonesian Market as well and also if the amount of Outflows are irrisory compared to other Western countries is present in the territory with investments by the group Pirelli, Eni, Piaggio, Iveco, Techint, Telecom, Perfect, Sacmi & Costa Cruises.

However there are still some structural problems that damage the nation's domestic economy. Inflation has been one of these for about half a century, reaching an annual rate of 1000% in the years 1964 to 1967. However, economic growth has also brought benefits on this front, reaching a rate of 7% in 2010 compared to 6% growth and closing 2017 with a rate of about 3.6%. (Cia Data World fact book, 2017).

The tertiary sectors, tourism in particular, has suffered an huge decrease since 2000 respects others countries of the ASEAN area, due to a large number of terroristic attack occurred in the country, reducing the presence of foreign tourists in Indonesia.

### 2.4 LAOS

The Laos is the only one country of South-East Asia members countries which has no outlet on the sea. From 2009 and following political and governance changes, is not considered an Marxist-Leninist country, but has became an open-market approaching a
free-trade economy. This milestone boosted the economy, pushing US companies to invest more and more in Laos, also due to the fact that investments by the country carry a receipt of public funds in their pockets. In addition to the aforementioned investments by the United States, the economy of Laos is principally based on investment and commercial exchange by neighboring states, principally Vietnam, Thailand, China and Singapore, and by France, Germany and UK from Europe. The largest variety of product imported and exported with both group of countries are timber, clothing and coffee. However the Financial crisis of Thailand in 1997 (its main commercial partner) blocked in part the economic constant growing trend of Laos since the post-war, this leaded to a massive level of inflation, still now present in the country with a level of 3,3% (World Bank Data 2018) and a depreciation of the local country. The capacity of Laos to attract investment from neighboring country, despite its economy is relative smaller in respect to others countries of Southeast Asia, can be pointed out by a plenty of reason, in particular:

- Abundant of Natural Resources, as Arable land, forests, copper, gold and coal.
- Low cost of its labor force
- Geographical proximity to China

In the matter of fact the amount from just the neighbor countries represent more then fifty percent of the total of FDI in Laos (Data of Financial Times, 2018). The composition of the economic activity is more similar with the neighboring countries of the ASEAN group, the Agricultures has a huge impact on the economy, and engaging about the eighty percent of the whole labour force and producing the 20% of the national GDP. Agricultural products on which the economy is based on rice, vegetables, corn, tobacco, cotton, tea. The only crop produced for export in significant quantities is coffee, as mentioned before Laos is one of the greater exporter in the Area.

The industry sectors employs just the 20% of population, not showing a great development in the past decade also if producing a the 33,2% of the GDP in 2017 (World Bank Report, 2017) An example of why The textile economy remain important in some countries such as the Laos, is provided by an articles of Vanina Boutè & Vatthana Pholsena which they asses how the outcome is not limited just to industrial garment manufacturer. National politics of culture impose in fact, the obligation to wear specific
uniforms and costumes, for work or during festivals, and for official ceremonies for the rest of population. Employing for the production of such garment a major parts of woman raising the participation rate at work of the country. Despite the growing economy, nowadays Laos remains one of the poorest countries in the world and ranks in one of the last position in relation to the Human Development Index, the United Nations index obtained on the basis of GDP levels (with the same purchasing power), the quality of the life and education. The country finally finds itself fighting with very poor infrastructure.

2.5 MALASYA

Malesya positioned itself as one of the most developed and high growth prospective country in the whole Asia. In the matter of fact is economy is the largest after Thailand and Indonesia despite the small dimension compared with the two countries, according to the Competitiveness Report of 2018 achieved the target to be appointed as the twentyfifth country in the world for competitiveness in 2018. According from data of World Bank the growth rate in the two past decades has been stable around 5%, and the forecast shows that the country might reach the status of an high income economy within the next five years. Another important Key success factors that positioned Malesya more competitive, attractive and performing in respect of neighboring country, is its position about Sustainability, green economy, and Energy efficiency, among the most developed and innovative in the whole Asia.

From the research of Ali and Haseeb (2019) is reported that Malesya in the recent years has been able to position itself 9 on 133 countries for the endeavors undertaken to decrease environmental weight on human wellbeing.

Nowadays the GDP is no longer based on the export and import of raw materials or primary sector products like the other countries of the ASEAN group. Since the abandon of primary sectors based economy about at the half of XX century and the approach to the New Economic Polivity, Malsaya’s economy becoming strong and based principally on industry, manufacturing and services sectors. The country became a leader in the export of electronic component and electrical appliances. In in 2017 the Malaysian GDP
was divided into various sectors such as 8.8% in Agriculture sector, 37.6% in Industry and 53.3% in Services (World Bank Report, 2019).

About the resources sector the countries is the third in the world in producing natural gas and the second producer in the region of Oil. The production of oil and gas is fundamental for the country also because is perfectly fitting with the position of Malesya in the Continent, being in the middle of one of the main road in the world for the energy commerce. The high incidence of production of both oil and natural gases in Malesya, representing 15% of the country's GDP, has led to both positive and negative consequences over the past decades. If it is true that the state has benefited a lot and gains in economic terms from rising oil prices since 2008 and rising energy prices globally, the fluctuation in fuel prices has often been a threats to the economy. To balance the Fluctuation in term of internally production and export the Malesyan government in the last years have tried to promote the country as HUB not just toward ASEAN country but also by deal of free trading with other strong economy as China, India, Japan, Australia and New Zealand; it gives benefits to countries through tax relief and incentives. Countries of Oriental Asia such as China, Indonesia, Japan, Singapore and Korea show the major inflow of investment in the county. Among the main reason in attracting FDI we find:

- The already mentioned strategic position and the important supply of natural resources
- Incentives and tax relief
- Well developed and innovated infrastructure.

However the Malaysian economy is not subject to risks, in fact from 1990’s till nowadays the country has a strong economic dependence on China makes it extremely sensitive to changes in demand from the Chinese state. The country also presents the typical problems of the other Country of the ASEAN group, for instance. economic inequality between different populations of the state and a shortage of highly skilled professionals.
2.6 MYANMAR

Myanmar is one of the poorest country in the world, not just at the level of the economic growth, that according to data from World Bank has faced a low growth of just the 2.9% per year (Significantly lower respect neighboring country) but also concerning the Human Development, Inequality and Poverty. Myanmar in fact shows an Human development Indicators of just 0.584, ranking itself 145th in the world, with the 38.3% of population living in Multidimensional poverty (2019) of 53.7 millions of citizen, and just the 17.5% of the total can be considered as skilled labor force. (Human Development Reports, 2019)

However, the growth of the GDP over the years has been accompanied by significant fluctuations in the inflation rate, just think that according to the World Bank data, only in 2002 did Myanmar register an inflation of 57.07%, stabilizing in 2018 around 7 %., as shown in figure 4. Nowadays Myanmar shows a mixed economic system, controlled both by private entities and military government, the first manage Agriculture, transport and light industry, while the second control energy, rice’s commerce and heavy industries. Looking at the primary sector agriculture has a huge impact on the GDP the primary crop is rice, but in the northern regions, the crop are concerning an huge variety of cereal, potatoes, legumes and sugar canes. The cultivated lands are 14% of the total of the territory, rice cultivation is practiced on 2/3 of the arable lands and the mechanization of agriculture is only at the beginning. The Agricultural Sectors account the 37.8% of the total GDP (while as we have seen the percentage is significantly decreased in others country of ASEAN group). The labor force generate about the 30% of the exporting activities earnings, (United Nations Food and Agricultural Organization, 2017). Others consistent activity regards extraction in particular: Lead, zinc, tin and tungsten, but a large amount of revenues are obtained from the export of rubies which in Myanmar are very valuable and are considered among the best in the world. The industries are not very developed: there are textile, food factories but also heavy industries such as cement, metal and war industries. From 2011 The Myanmar have approached the free market, reaching a significant boost in the economy and registering, after the 2011 an annual growth of around 8% according to Asian Development Bank report (2017) that The economic growth had positive advantages in term of poverty reduction from 48 to 32 percent in the period from 2005 to 2015. But overall, rural populations are more than twice as likely as
urban populations to experience multiple disadvantages. The disadvantages just mentioned are unfortunately accompanied by a strong presence on the black market and illegal drug trade and the country is one of the most prone to natural disasters. However Myanmar growth make country attractive for foreign Investment , the DICA reported a series of reason why countries should invest in Myanmar, in particular the country provide Incentives and a simply process, encouraging investment with positive impact for environment and society and a strategic position with easy access to India and China. In the study of Toshiro Kudo (2012) China shown as one of the major economic partners for Myanmar , providing a large amount of economic cooperation for infrastructure, energy and state-owned economic enterprises.

![Figure 4. Inflation in Myanmar](image)

### 2.7 PHILIPPINES

Over the past two decades, drivers have made the Philippines one of the most energetic and growth-growing economic structures in the ASEAN area. In 2016, its nominal gross domestic product (GDP) was 316.87 billion dollars and GDP per capita was 3,042. With a workforce of 64.8 million and an unemployment rate of 4.7%. Of these individuals employed, 53% work in the service sector, followed by agriculture (32%) industry (15%). (CIA World Factbook, 2017).
According to researches of World Bank driver as increasing urbanization, growing middle class and availability of workforce at young age, get higher the demand for internal and external investments, In fact, the World Bank estimates growth of 6.5% in 2020-2021, stimulated by public investment, an increase in consumption and an increase in foreign investment flows. So on such as others country of the ASEAN the majority of Philippines is based on agricultural activities, but is considered an economy of new industrialization and an emerging market, moving from an agricultural economy, or however based on the primary sector to an economy underlying on services and production. In the primary sector, which provides 9.66% (2017) of GDP, 37% of the active population is employed. (Data Elaboration from Statista, 2017) Agricultural production for export includes copra (of which the Philippines is one of the world's largest producers), tobacco, coffee, rubber. The Philippines also if are behind to the attractiveness level of FDI from close country, shows having some advantages over regional partners in terms of attracting foreign investment: a large, skilled (differently from others countries of ASEAN area, where low-skill are a significant part of the total workforce) and low-cost workforce; widespread knowledge of the English language. The capability of Philippine workforce in speaking English is maybe one of the most important Critic factors in attracting FDI. According to the 2000 Census of Population and Housing of Philippine National Statistics Office, 63.7% of citizen of Philippines over the age of 5 reported an ability to speak English. (Investopedia) For example, the country has developed an international level capacity in the business process outsourcing sector (BPO - call center and other business services), which amounts to around 10% of GDP. Furthermore, in the coming years, the sector is expected to become the most important component of the Philippines' GDP. However the increasing inflow of FDI from the advantages just listed in the last decades; the weak constitution and the continues threats of terroristic attacks in Philippine are limiting the inflow of foreign investment. One of the reason is then despite the transformation to a services-based countries mentioned before the Philippines economy still show a lower capital capacity, keeping the necessity of equipment at the minim level this phenomena is enhanced by the fact that the governments promote deal with internal market and foreign country, instead of FDI. Others structural factors influence the unwilling of FDI by partner countries, above all
Political Instability, Infrastructure are not reliable, corruption and a lot of differences at income and security level among the areas of the country.

2.8 SINGAPORE

Singapore is one of the most industrialized states in the world. In fact, the approach of the analysis about the country's economy is substantially different from that used for the other countries of the ASEAN group, also in terms of FDI Singapore is one of the main states to invest in. Other countries in the area, taking advantage of the advantages instead of receiving them. According to CIA World Data FactBook Singapore shows an high-income economy with a GDP of 54,330 per capita and the GDP growth has been one of the highest in the world with an average of 7.7% in the last 25 years. The economy is one of the most efficient in the world and Agriculture is not impacting the GDP such as other state member of ASEAN. The industry is driven by added-value manufacturing, engineering and production of electronic components; but also services sectors have shown a large growth in the last year, in particular the industries of information, communication, insurance and finance.

CIA World Factbook (2017) shows the composition of GDP divided as follow: 0% in agriculture, 24.8% Industry and the remaining 75.7% if services, the composition of GDP reflects the ability of the country of transforming itself moving away from a primar-sector based economy. According to UNCTAD's World Investment Report (2019), Singapore was the fourth for FDI inflows in the world in 2018, inflows reach 77.65 billion dollars in 2018, from USD 75.72 billion of 2017. However, differently from other countries of ASEAN group, Singapore is also a major investor abroad and has sought to diversify its investment beyond its traditional target markets in Asia, namely China, India and Vietnam in recent years. The Inflow of FDI in Singapore are principally from United States, and the Netherlands. Financial and insurance activities are by far the main recipient of foreign investment, with 54.5% of all FDI stock. There are many reasons why Singapore is considered one of the most profitable countries in terms of foreign investment, its labor force is one of the high-skilled in the world and the significant
sectors in the country are highly value-added. In addition, infrastructure is among the best in the world and, as is the case with Malesya, it is located in one of the most geographically strategic points of the entire continent, making it an important center of international exchange. The state also offers tax relief for foreign investors. However, the state still has some problems similar to those of its neighbors, such as the lack of complete transparency of incentives and investment methods and dependence on trading activities with other countries such as the US or China.

2.9 THAILAND

From the second half of the last century Thailand has been one of the countries able to perform a change from a low income economy country to an upper income one. According to the overview of World Bank, Thailand’s has been a widely cited development success story, with sustained strong growth and impressive poverty reduction.

The country focus the major parts of its GDP on activities of export relayed on industrial and services market, reaching according to World Bank Data a remarkable percentage of GDP of 39.2 percent in 2017. By now Thailand’s account just the 8.4 The construction and mining sector have share of 4.3 percent to gross domestic product of Thailand. Other service sectors (including the financial and education) have a share of 24.9 percent of the country's GDP. Telecommunications and trade in services are emerging as centers of industrial expansion and economic competitiveness (Thailand's Annual Infrastructure Report, 2008)

The stunning result of the last decades of progress lead the country to a GDP of 1.321 Trillions of Dollars in 2018, after a growth of 4 percentage point from the previous year, but the economic result are not the only remarkable fact about the growth of Thailand. The country is one in the world having an incredible low unemployment rate, reaching its lowest point in 2014 with a 0.49 percent, Figure 5. (World Bank Data Elaboration)
As underlined before manufacturing sectors (combined with services) has a massive impact on GDP focus principally on electronics and automotive. The latter is a particular attractive sectors for foreign enterprise and FDI activities, since the low cost of labour and the high supply of resources make possible a significate lowering in cost, making the country one of the main hub for assembling. Moreover a remarkable example, about manufacturing sector of Thailand, is provided by Kasuga et al. (2005) who mentioned the market of pickup trucks, holding a share of over half the market. Thailand is the world's second biggest market for such vehicles, after the United States. As externality some enterprise from other countries, such as Ford, Isuzu, Mazda and Mithsubishi have decided to decentralize their production within the Thailand borders, with the purpose of either sell domestic and to exploit the country as export oriented platform, exporting back in the home country. Finally an incredible inflow of income come from the tourism sectors, accounting an 10,4% on the global GDP. (CIA World Factbook, 2019)
positive impact on the Thai economy, in part on the production sectors, construction, finance, wholesale, retail and agriculture. This was also possible thanks to the opening of Thai governments towards foreign investors, who (as will be discussed in chapter 4) have provided incentives in terms of tax relief for multinational companies. The overview on Thailand makes it clear all the factors underlying its incredible growth potential, making it not only the second largest country in ASEAN countries after Indonesia, but also one of the most attractive countries for inflow of FDI.

2.10 VIETNAM

Vietnam has had a long and tortuous history. Internal conflicts, war and political instability of the past decades, also having a significant impact on the country's economy, making growth targets a very difficult goal to achieve. Despite this, the country has achieved globally recognized goals in terms of macroeconomic stability, and poverty reduction, has not been accompanied by significant social inequalities, typical of development of the countries emerging reaching for growth target. A very important step towards achieving these objectives can be found in a series of policy choices and reforms undertaken by the state.

1986, a crucial year for the beginning of economic development, saw Vietnam take the same path as other neighboring countries, trying to convert its economy, a basic agricultural economy, opening the door to foreign markets and negotiations with companies trying to boost industrial growth and make the most of its potential.

The adhesion to OMC in 2007 provided to Vietnam a radical change more than the boom of economic growth. It gives to Vietnam a huge raise of young workforce, incredible increase in number of people’s instruction and a great commercial dynamis; these factors make Vietnam great ambition as one of the country with the highest growth potential of the next decades. The main sector of economy is the agricultural one, that see as first product for production rice, but in the past decades as shown a raise also for others products such as soy and corn and coffee. The Agricultural is also related with the Industry’s sectors, being numerous processing plants planned for agricultural products.
such as distilleries and sugar refineries. The products for export are principally: rice, oil, coal, clothing, and silk; exported to Japan, China, Singapore, France and Germany. The main imported products instead are: mineral and fuels. In 2017, Vietnam had a significant growth in exports (of 21.2%) led to exceeding the share of 200 billion. The driving sectors as in others ASEAN countries, are basically the labor-intensive (telephone industry 45 billion Dollars, textiles 32 billion, Electronics and IT 26 billion). Even if Vietnam has imported goods for a total of 211 million dollars (of 20%). The data is due to the acquisition of capital goods and semi-finished products necessary for foreign industry. (World Bank Report, 2018)

The country's production structure and its positioning in international chains is reflected in the degree of its commercial partners: China, Korea and Japan are the major exporter from Vietnam. Export flow to these partners must increase and the trade balance with them remains in deficit and the trade surplus is due to the expenditure towards the US and EU. The highest goal of the growing economy respect to its peer neighbour country is the efficiency on lowering the level of corruption strengthening governance, policies. The country provide a great transparency in all transaction and action taken by government and data are easy accessible for everyone. Various reforms also aiming to improve the strong of enforced contract, and to make more easy the resolution, restructuring, and bankruptcy proceedings.. Based on the results achieved and the expected trend of the world economy, the growth target for 2018 was set between 6.5 and 6.7%, Growth then was actually 7.1% in the first quarter of 2018 recording the highest growth in the decades and open the door toward a brightest future of growth. (World Bank Report, 2018)
3. FDI IN SOUTH EAST ASIA DATA ANALYSIS AND VISUALIZATION

The previous chapter provided an overview of the economic situation of the 10 countries of the ASEAN group, providing some indications on the reasons why each of them has been able to attract investments from foreign countries and in which sectors they are concentrated. Now we are going to analyze the main FDI Trends in South East Asia over the years between 2003 and 2017, using data on FDI provided by the Database of fdiMarkets of Financial Times. Laos and Brunei will not be considered in the following analysis, since they not attracted a significant quantity of FDI in period examined. We have observed that, since the post-war period, a common denominator of the entire ASEAN group has been gradual abandonment (although this transformation is not yet complete in most of the Southeast Asian states) from a main economy based on the primary sector and agriculture, in favor of an economy based on the sectors of industry and services.

This radical change has favored an exponential growth in all 10 states of the ASEAN group in terms of GDP, consequently increasing the incoming flow of investments by foreign companies. However, the transition was not immediate, as laws, regulations, bureaucracy or simply national identity did not often favor the establishment of Multinational enterprise within the borders of the various states, such as what has been demonstrated in Brunei where the strong religious presence of Islamic origin blocks the entry of FDI to local businesses. Another important milestone for the constant growth of GDP and so on the inflow of FDI in ASEAN, has been the AFTA agreement in 1992 that help the exchange within ASEAN member through the elimination of tariff and not tariff barriers and in order to attracting FDI to ASEAN. The overview will also provide evidences of some important factors that differentiate the types of FDI, in terms of effect for each member state of the ASEAN group, such as why some specific states invest in some states of the ASEAN group and not others. For Instances a review over literature, Julia Jurby & Hinrich Voss (2010) underline the relationship between ASEAN and China in their assessing that Chinese firms have a massive positive impact over the workforce of the host country, but in the other hand there is a no proportional interaction with local
firms which could reduces the potential gains from spillovers. Gulzar & Zubruegg (2006) show that a deterioration in the effectiveness and enforcement of investment regulations (such as price controls and excessive regulation in foreign trade and business development) have an adverse effect upon intra-ASEAN FDI. Will also be possible to note the correlation between the amount of GDP and the inflow of FDI; the increase was directly proportional, given the constant growth of GDP for each country in South East Asia, since the opening of the markets.

3.1 FDI FLOW

![Pie chart showing FDI inflows per capital invested in destination countries]

*Figure 6. Share of FDI inflows per Capital Invested in Destination countries*

As shown in the Pie chart in figure 6 More than fifty percent of FDI were divided between Indonesia & Vietnam between 2003 and 2017. Indonesia have been entering among the first countries to enter the AFTA in 1992 while Vietnam only in 1995.
The two countries reach a total number of FDI respectively of 2440 and 3800, for a total amount received of about 393 Billion Dollar for Indonesia and 346 bilions dollar for Vietnam.

Two of the common features between the two countries are without a shadow of a doubt the abundance of resources such as raw oil and natural gas, also significant are the actions taken by the governments of the two states to increase the attractiveness of investment by foreign countries. In addition, according to the annual Santander Bank Trade market report, both countries have seen an increase in domestic demand, thanks to the development of the middle class. Moreover the share for Indonesia is not destined in lowering since the country continue to give positive internal signal. The United States News and World Report ranked Vietnam 8th in a list of 29 best economies in the world for investing, and that might be related to many reason for its success. Nguyen Tan Dung for the World economy (2015) lists the three reasons why Vietnam was exploited by a large percentage of FDI in the twenty years between 1991 and 2010, first of all we have the country's political stability now, more than 60% of the population is of working age, Vietnam seeks a year after the improvement of the legal system and institutions to encourage investment.
Figure 7. Share of Country investors, per capital invested in Indonesia and Vietnam

The Chart in Figure 7 shows that in the period examined, for Vietnam the largest trading partner in terms of capital invested was South Korea for a total 61.57 Billion of Dollars. The main reason must be found when Vietnam opened its market. South Korea, given the low labor costs and the strategic position in terms of proximity, compared to other countries with low labor costs, started to open, Hi-tech facilities & Hi-tech Factories in Vietnam, including some of the largest Korean companies such as Samsung & LG. Japan, dealing an economic partnership and free trade agreement with the country in 2009 is the second larger investor toward Vietnam with a total outflow between 2003 and 2017 of 53.06 and 9.11 Billion of Dollars just in 2017. In the past years the flow of investments regarding the type of asset has been mostly in line with the other development countries of the ASEAN area, regarding manufacturing, construction and electricity, however according to Dezan Shira (2018) Vietnam increased Merger and Acquisition
activities from Japanese investors. Japan’s firms performed 11 Vietnam-based M&A deals between 2014 and 2017. Japan is the second largest number of FDI outbound to Indonesia, with a total of 56.89 billion dollar. The first country for investments in Indonesia is, however, the United States, although they are not benefiting from the proximity to the state. With a total of FDI capital invested for 59,18 Billion dollars. The main reason for the first position attributed to the United States is due to the Comprehensive Partnership by President Obama and Juhyono, a partnership to increase the strong of bilateral relation between the two countries. According to a report of the White House Office of the Press Secretary (2010) The agreement provides for a series of investments and financing by the United States to promote high education in Indonesia, and investments in the country to meet targets to be reached for environmental commitment. Given the success of the 2010 agreement, in 2015, the two states decided to modify the relationship to the U.S.-Indonesia Strategic Partnership, extending cooperation to issues of regional and global significance. China is the third economic partner for Indonesia, with a total of 50,23 Billion dollar of FDI, while is not one of the most relevant investor for Vietnam, accounting 13,59 Billions Dollars between 2003 and 2017.

<table>
<thead>
<tr>
<th>From\to Country</th>
<th>Vietnam</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
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<td>59,18k</td>
</tr>
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</tr>
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<td>Japan</td>
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<tr>
<td>Germany</td>
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<td>8,06k</td>
</tr>
<tr>
<td>Hong Kong</td>
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<td>2,98k</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>13,35k</td>
<td>18,44k</td>
</tr>
<tr>
<td>Singapore</td>
<td>18,44k</td>
<td>19,5</td>
</tr>
<tr>
<td>Thailand</td>
<td>16,47k</td>
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<td>Australia</td>
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<tr>
<td>France</td>
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</tr>
<tr>
<td>India</td>
<td>4,14k</td>
<td>17,68k</td>
</tr>
</tbody>
</table>

*Table 1 Amount of Capital invested in Indonesia And Vietnam by Source country, in Millions Dollars*
In the Table 1 are listed all relevant countries in the period for amount of capital invested, highlighting as just analyzed the two country with largest amount of FDI in Vietnam and Indonesia.

The others countries sharing the remaining 47.3% of the total amount of FDI. Cambodia and Myanmar although, like the other states in the area have seen steady growth in the fifteen years analyzed, have not attracted FDI as significantly as neighboring states. Cambodia attracted 29,13 Bilions Dollars, just, the 2% of the Total inflow of FDI in ASEAN, Myanmar the 3,8% of shares with 55,55 Bilions Dollars. In fact according to the study of Vu Khiem (2015) the two countries share similarities in political situation, economic development and human capital, and they are attracting principally investments by efficiency-seekers investors. Malasya and Singapore are the third and fourth countries of inflow of FDI in the ASEA with an mount of, 194,92 Bilions Dollar for the First and 181,75 for the Second. Both are in the matter of fact the two most
developed and technologically advanced countries in the area. In support of this thesis, Asean Briefing of Dezan Shira & Associate defines Malesya as a country that has been able to diversify its economy substantially on the past years. Malesya favoring growth today based more on ICT, services and foreign investment, while in the Asean Briefing just mentioned, Singapore is addressed as the second best country in the world to invest to, due to its geographic location (such as Malesya), level of infrastructure and the level of instruction of middle class. Being the two countries similar in strategy undertaken to attract FDI, Figure 9 shows the amount of FDI toward Malesya and Singapore. In 2008 the years of the global crisis Malesya reaches an amount of 23,3 Bilions Dollars, in parallel with a growth of 4.6% of GDP growth translated into an increase in the country's attractiveness to international investors in the year of the great crisis. According to AMISTAD the main reasons was a robust domestic demand, in particular sustained private consumption and strong public spending, supported growth during the year.

![Figure 9. Comparison of FDI Inflow between 2003 and 2017 in Singapore (green) and Malaysia (yellow)](image)

Thailand account an 8.4% of the share and 134,71 Bilion dollars invested while, Philippines 123,4 bilions dollars and a 7.1% of the remaining shares. Both Countries joined the AFTA in 1992, among the first countries, incentivating free trade and boosting
the FDI in the regions. They can boast a low-cost workforce, but while, as pointed out in the previous chapter, the Philippines continue to attract investors especially for the percentage of English-speaking professionals, Thailand sees its success as a result of reforms and initiatives, especially Thailand 4.0 was introduced in 2017, an economic model that aims to unlock the country from various economic challenges resulting from past economic development models that place an emphasis on agriculture (Thailand 1.0), light industry (Thailand 2.0) and advanced industry (Thailand 3.0). These challenges include "an average income trap", "an inequality trap" and "an imbalanced trap" (Thailand 4.0 Resource Center, 2016)

As already assessed for Vietnam and Indonesia, the investor countries of South East Asia, sharing the remaining amount of Inflow of FDI in the period examined, are represented in below in Figure 10. The size of each space represents the total invested by the specific source country in relation to the total investments received by the destination country of reference. The countries identified as top investors (by amount of capital invested and the largest number of high-impact FDI per destination country) were then listed in the table 2 giving information about the amount of investments in the destination countries in analysis.
From the chart the Japan resulted as the top investors in 4 out of the 6 countries took in analysis, to boost the outlow of FDI has been due to The ASEAN-Japan Comprehensive Economic Partnership of April 2008. From the Official investment promotion website of ASEAN underline that The Agreement covers trade activities.

The AJCEP mainly provides:

- Reduction on tariff on trading
- Dispute settlement mechanism
- Trade in services agreement (currently being negotiated)
- Investment agreement (currently being negotiated)

Since the partnership has been possible to Japan consolidated both Horizontal FDI, minimizing trade barriers and Vertical to exploit the lower production cost of Thailand.
Japan, however, has allocated the largest number of resources in Thailand with an amount of 39,14 billions of dollars. The investments made have been quite stable over the years, with a minimum of 1.1 billions in 2003 but a maximum peak of around 3.8 billion invested in the years 2012, 2014, and 2016. Since the important of Thailand the trend of investment from 2003 to 2018 are reported to the bars chart in figure 20. (Data from 2018 are not took in consideration for analysis)

![Figure 11: FDI inflow in Thailand between 2003 and 2018](image)

For Singapore and Cambodia, respectively United States and Malaysia are reported as major investors with an amount invested of 50,86 Bilion Dollars and 5,93 Billions of dollars. By analyzing the amount of investments for the countries of origin selected (Table 2) in relation to the country of destination, it is possible to understand some important trends and draw some considerations:

- Singapore has received the largest amount of FDI in terms of capital invested by the United States, United Kingdom and Australia, three highly industrialized and
innovative countries, being Singapore one of the most innovative states in the world, with the best infrastructure and skilled human capital, FDI they can have the objective of Strategic-asset seeking, to access different and difficult to access resources.

- Singapore has invested 10.67 billion dollars in Malesya, to access a reduced cost of the workforce but taking advantage of Malesya's strategic position in terms of proximity, the type of FDI is therefore attributable to an Efficiency-seeking.
- However, Malesya has seen its FDI concentrated in the Philippines, such as Resource Seeking, given the availability of natural resources and labor at a low cost of this utility.
- China and Germany have also decided to allocate the largest capital in Malesya, to access low-cost resources and taking advantage of the centrality of Malesya in the Asian continent.
- Cambodia was not particularly attractive to foreign investors despite its constant growth in the period analyzed, the most significant FDI came from neighboring countries, capable of exercising greater control, China and Malesya, with a total inflow of 5.41 billion and 5.93 billions.
- China's FDI were mainly Resource-seeking & Efficiency Seeking, having mainly invested in Philippine Malesya and Cambodia to access natural resources, lower costs and tax relief, as reported in the previous chapter.
Finally the analysis provide an overview of the ratio between capital invested and number of distinct firma undertaking FDI, of the top investor taken in consideration in the previous part. While United States show a proportion ratio between Capital Invested and Number of company investing, Japan have invested more capital with less company, suggesting as the Japanese firms are more able to move large amount of value due to the presence of larger enterprise.
Figure 12. Positioning of Source country respect the variables of capital invested and number FDI

3.2 FDI TREND, CAPITAL INVESTED AND NUMBER OF FDI

The following paragraph provides an analysis of FDI trends in the period analyzed; from the point of view of the total number of FDI received and the total invested capital received. The chart in Figure 13 shows the evolution of the FDI trend, in terms of capital invested in the period between 2003 and 2017, while figure 14 shows the trend in the number of investments received. Investments averaged $73.92 billion annually, but there is a variance force due to particular events affecting the entire global economy.
The graph shows that 2008 was the luckiest year among those analyzed both for the total number of FDI and for the total amount of Capital Invested. The total FDI to ASEAN countries (excluding Laos and Brunei) recorded was 183.23 Billion dollars for a total number of 1660 investement. Despite the global crisis that began in the second half of 2007, the growth in the flow of FDI was 34%, in fact 2007 closed with a total of 120.39
billion dollars invested. The UNCTAD, in the World Investment annual report justify the growth from combination of positive factors, a step towards economic regional integration, and an improvement of the structure of the investment environment. The region became increasingly attractive to market-seeking FDI. However, the exponential growth starts from 2005, in fact after a drop in investments from 2004 to 2005, the area has recorded continuous growth with recorded rates of 29.8% in 2006 and around 40% in 2007, the year of greatest growth in the period analyzed. A significant event for the start of growth were also the numerous structural reforms in the countries analyzed, which increased some phenomena favorable to the FDI inflow.

The period between 2005 and 2008 for example saw the increase in large cross-border M & As in South East Asia, in 2005 there were 2582 M&A operations, in 1995 there were only 958 operations of this type. After the widespread of the financial crisis, the 2009 was marked by a global decrease in FDI flow. During the year there was a big decline in Merger And Acquisition operations and a downturn of Greenfield investments since the last quarter of 2008.

The decline continued until 2012, which recorded a total of FDI's Inflow of FDI of 55.91 billion dollars, and a total number of FDI of about 14300, posting a loss of 69.5% in the period between 2008 and 2012. From 2012, there will be evidence of the first signs of recovery. Foreign MNE resumed capital investment production, finance, infrastructure and other services, also during the period there was an increase in intra-regional FDI, which displayed a constant increase between 2010 and 2015, growing from 15 billion to 22.1 billion in 2015 (ASEAN Secretariat, ASEAN FDI database). The 2017 ends up with a new downturn in respect to 2016, closing the fiscal year with a total amount of FDI for 68,27 Bilions Dollars and 1300 as number of investment.
Figure 15 clarifies by country the trends highlighted in the graph in Figure 13 shows the trends of each individual country taken into analysis, it clarify the individual bars show the amount received for each year; It Possible to figure out in. Figure 15 individual trends similar to that shown in the overall graph in Figure 13. For example, all states see significant growth between 2007 and 2008, with the exception of Singapore and the Philippines, that report respectively 10,46 and 11,44 Billions dollars in 2008 respect to 15,91 and 12,41 bilions dollars of the years before. Indonesia and Vietnam are the single states with the largest FDI revenue in the year before the crisis, but also those that had a steeper drop between 2008 and 2009. In 2008, Indonesia recorded an inflow of FDI for 65.41 billion dollars, while in the following year alone they reported investments received for 27.31 billion, recording a loss of more than 50% on the total. An explanation is provided if the OECD, as previously highlighted the years between 2003 and 2008 have recorded an exponential growth in the operations of Merger and Acquisition, indonesia was one of the target states for this type of financial transactions, as some structural reforms within the Indonesian economy have increased its attractiveness and given investors more confidence in the face of the country. The acquisition of Sampoerna (Indonesia) by Philip Morris (United States), is an example of this kind of activities. Indonesia's attractiveness in terms of FDI has become elastic in relation to M&A activities, consequently leading to a decrease in incoming FDI, parallel with a decrease
In Merger and Acquisition operations. In Figure 16, we find a representation of the total number of FDI received by the countries analyzed in the period. We figure out profound difference compared to the previous graph; while Indonesia is the one that has attracted a total received capital greater than the others ASEAN countries, the primacy for number of investments received is Singapore with a total of 4980 foreign investments, Indonesia ranks fourth with 2440 behind Vietnam with about 3580 and Thai landia with 3000 investments. Therefore we can deduce that Singapore attracted on average lesser capital investments in the period analyzed. In fact, as we will see later, Singapore differs in terms of types of investments, mostly of Strategic asset-Seeking and Resource Seeking types, rather than investments aimed at guaranteeing lower-cost resources as in the other countries belonging to the ASEAN group. Singapore has investments mainly in the Financial Services, Retail Trade and Headquarters locations. Investments on average at a lower cost than those for Manufacturing and Construction and which have seen a boom in companies being born and investing more in the first, in recent years. The increase in companies operating in the service sector partly explains the reason for the primacy of Singapore in terms of number of FDI compared to neighboring countries.

![Figure 16. Total Number of FDI in ASEAN by Destination country](image)

In order to clarify and summaries the assumption made in the chapter about Amount of capital invested and number of FDI, in Figure 17 has been reported an Scatter plot where
Destination Country are positioned in the graph, with x-axes represent The capital invested in that country (Millions dollars) and on y-axe the number of investment undertaken.

![Graph showing positioning of destination country in respect to capital invested and number of FDI received.]

**Figure 17. Positioning of Destination Country in respect to Capital Invested and number of FDI received**

### 3.3 CAPITAL INVESTED AND NUMBER OF FDI FROM SOURCE COUNTRY

The following Geography Charts provide an overview of the distribution of FDI by country of origin, and highlight the amount and number of FDI undertaken by multinational companies. The invested capital takes into account the sum of all the investments of the various countries from 2003 to 2017 according to the data provided by the Financial Times.
As is possible to figure out from figure 19, Japan, China & United States (in that order) remain the ASEAN group's largest trading partners. The United States, in the period highlighted, invested a total of 230.7 bilions dollars, China a total of 140 bilion dollars, while Japan with a total of 266.7 bilion is the largest source of FDI towards the countries.
of South East Asia. Peter A. Petri and Micheal G.Plummer (2014) figure out in his research “ASEAN Centrality and the ASEAN-US economic relationship” that the main driver in term of attractiveness of South-East Asia for the United States, is the dynamism of the region and centrality among crossroads of huge market, critical shipping lanes and the control of substantial agricultural, mineral and energy sources. The China interest is justified by the closeness to the region, and number of trade enhanced from 2000 with the ACFTA, deal for free trade with the aim of promoting the economic integration. Japan remain the dominant foreign investor in South-East Asia. However in figure 20 we have an overview of the number of FDI by country of origin, while the United States and Japan with a total of around 4090 and around 3800 are confirmed in all respects the Top partners for the states of the ASEAN group also for FDI number, the talk is slightly towards China. This with a total of 815 in the period examined is positioned behind England, with around 1500 in total. This substantial difference is given by the economic explosion of China that has occurred only in recent years. As can be seen from the graph in figure 21 only since 2010, in fact, China has almost doubled the total number of FDI in the countries of South East Asia, suggesting an unbalanced distribution in number of FDI within 2003 and 2017.

![Figure 20. Number of FDI from China to ASEAN Countries](image-url)
In Europe, the most influential trading partners for the capital invested in the period were, France with a total of 50.72 bilions, Germany with 45.56 and England being the largest source of FDI Outflow for a total of 61.57 bilions. As mentioned above, it is
important to note that England has a higher total number of FDI in proportion to the capital invested, this means that companies to undertake FDI are present in greater numbers. For the other European states, the relationship remains balanced. As can be assessed from figure 23, Germany and France are positioned later with a number of FDI from 2003 to 2017 equal to 1230 and 860.

The ASEAN and the EU began negotiations for the EUSFTA (EU-Singapore Free Trade Agreement) registered free trade agreement in December 2009, shortly after the 2008 financial crisis. The Deal with Singapore for free trade has been performed in October 2014.

Figure 23. FDI by source country in the East Asia Region
Although AFTA provides for tax restrictions on taxation, FDI within the ASEAN group are marked by excessive inequality, in fact we find an Outflow of FDI coming only from particularly industrialized countries and which have completely completed the transition from the economy based on industry-based economy agriculture. Among these we find Malesya with a total capital of 68.89 bilions, Singapore with 66.21 and Thailand with a total of 51.5 bilions, which as we have already highlighted in the previous chapter, has an high FDI Inlofw rate towards Cambodia and Vietnam.

However it should be stressed that, in particular for Thailand, the problem of job creation still sees a substantial disparity between different area of the country, allocating the investment in particular area and so increasing the total welfare just in some specific areas of the county. The number of investments for investments among the same countries within the ASEAN group belongs to Singapore with 712 total investments. As we will discuss later, the large number is also given by the commercial partnership of Singapore with the neighboring Malasya. Singapore in fact undertakes numerous Efficiency seeking in Malasya and Singapore to guarantee resources at a lower cost, or vast territories to build factories and production centers. Following is Malasya with a total of 693
Investments in the period analyzed. Thailand in third position with around 500 remains one of the largest commercial partners for internal investments, being as seen in the previous chapter for some time one of the largest investors, in Cambodia and Vietnam.

3.4 INDUSTRY ACTIVITY ANALYSIS

Will now be provided details of the relationship between FDI and the industrial sectors which they were undertaken. The Chart in Figure 26 shows an overview of the total amount of FDI for industrial activity, while the Chart in Figure 27, provide the same overview but taking into account the total number of FDI undertaken. Both are placing in descending order. Manufacturing activities reach the primacy for investments by foreign companies, both for capital invested and number of FDI with a total invested capital of about 612 billion dollars and a number of investment equal to about 5500. Construction and Electricity Industries with 216 billion dollars and 161 billion following the manufacturing industry for capital investment but not for number of FDI where they reach just 769 and 235. The reason can be figure out by the fact that generally a single investment in Electricity or Construction is much larger than those in Marketing Support or Business services, which totalized about 4800 and 3300 investment. For Instance as introduced in the last chapter, a large amount of capital was invested in the period analyzed in Thailand and Indonesia to innovate all the Electricity sectors, but this fact does not is a necessary condition for a greater number of FDI. The industries that have seen less FDI inflow and outflow for both sides are those of Customer Center and Recycling. The former are strategically not very attractive to foreign investors, since the relationship with the customer is strongly linked to the language, there is a tendency to allocate these activities internally, or in countries where there is a strong linguistic component of the same mold as that of the company mother.

Recycling activities in last position with around 2 billion USD. The recycling industry ranks in this position as is a fundamentally young industry, the countries of the ASEAN group have taken a road to green-economy only from 2010 onwards, establishing national strategies addressing change policy and regulatory framework, according to the UN environment Report (2017).
Figure 25. Capital Invested in Industry activities

Figure 26. Number of FDI in Industry activities

Figure 28 shows a specification on the three main industries for FDI. Manufacturing and Electricity activities with 82 and 22 billion dollars reached the
maximum for foreign investments in 2008, the year in which, as mentioned in the previous paragraph, the largest increase in terms of FDI was recorded. According to the ASEAN Investment Report 2018 the increase large amount of FDI for manufacturing are also justified by the enhance of new production facilities for efficiency-seeking reason related to satisfy the regional sales, in particular from industrial and chemical sectors.

The industrial and chemical sectors have built up production facilities for efficiency-seeking reasons in order to serve the host market; such as Coca-Cola that located eight manufacturing facilities in Indonesia or the Pact Group that move manufacturing operation in the Philippines. Construction report investment for 43 bilion in 2016, The most important contribution was made by China (Figure 29) attracted by the availability of low cost labor to relocate labor-intensive industries. (Edward Ng 2017) The average investment contribution of China in Construction in the period between 2003 and 2017, is shown in figure 28 )With an average investment of 893 Milions dollar.

![Figure 27. Focus on the Capital Invested in the three main industry activities](image)

In addition to China, Singapore also reports a higher average investment in construction rather than in other activities, the geographical proximity makes it a determining factor for FDI efficiency seeking and resource seeking and therefore the reduction of labor costs.
Figure 28. Capital Investment in industry activities by source country.

The electricity sector had the biggest development in the last decade, seeing the higher average investment among top countries investors. According to the Asean Post (2019) FDI in Energy presenting a lucrative win-win opportunity for foreign investors, and by the International Energy Agency, the region would require 1.2 trillion dollars in investments between now and 2040. Japan is the first interested in this type of investment, with a total of more than one billion dollars on average invested in hydro, solar and wind projects.

3.4.1 MAIN ACTIVITIES PER COUNTRY

The two diagrams in Figure 30 and Figure 31 show how the total amount of capital invested is divided by industry activity among countries. Manufacturing is the main reason for FDI in Indonesia, Vietnam, Singapore, Malaysia, Thailand and the Philippines; Indonesia and Vietnam show the largest share with a total of 208 billion dollars invested in total and 138 billions of dollars. However, in addition to investments in energy and construction as previously highlighted; it is possible to see how a large percentage of the total also belongs to the Extraction activities. This results in the second largest FDI
industry in Indonesia with $66.37 billion invested and the third in Thailand with a total of $11.89 billion dollars. Indonesia is in the matter of fat the home of some of the largest coal-mining company such as the PT Bayan Resources. However according to UNCTDAD the largest mining companies in ASEAN are from Australia. They include large vertical integrated MNEs such as BHP Billiton and Rio Tinto. In Indonesia, Rio Tinto through market operation, owns one of the largest copper and gold mines in the world, and Newcrest holds a 75% share in PT Nusa Halmahera Minerals, which owns Gosowong, that has an important and big processing plant that produces gold and silver.

Figure 29. Shares of investment in industries for ASEAN Counties
However, the investment structure, as shown in Figure 31 is different for Singapore. The high rate of development and innovation of the country see it as a target for Efficiency seeking & Strategic-Asset Seeking investments, both vertical and horizontal. Although Manufacturing also comes first in Singapore, Business Services are the second sector with a total of 18.63 Billion dollars. Unlike all the other states of the ASEAN group, Singapore is the only country with a large amount of capital for the placement of multinational headquarters. In fact, many multinational companies decide to move their companies to countries that guarantee strong financial infrastructures and tax benefits. in Singapore this type of investment generated a total of 13.39 billion dollars. As for Maleaya, given the most strategic geographical position of the whole ASEAN area (Singapore has one of the largest and most efficient logistics ports in the world), 7.78 billion dollars have been used for the logistics sector. for Malesya the total amount is $10.83 billion.
3.5 GDP OF COUNTRIES ANALYZED AND RELATIONSHIP WITH FDI

The diagram below Figure 18 represents the trend of the GDP of the states analyzed, according to data provided by World Data Bank. As discussed in the previous chapters (and as can be seen from the graph) the GDP of the states of the ASEAN group has been growing on average from 2003 to 2017. It is important to underline that despite the global crisis, ASEAN states have continued to record a growing trend although this has seen slowdowns in the Biennium between 2007 and 2009. Is possible now to notice a series of correlations.

Low GDP countries like Cambodia, the Philippines and Myanmar economies are the ones that have received the least FDI. In fact, as highlighted in the previous chapters, these were among the last countries to begin the transition between countries with an economy based on the primary sector (agriculture in particular) to industrialized countries. This type of country mainly attracts vertical, resource-seeking to reduce the cost of labor, consequently not generating positive externalities on host countries.

Figure 31. GDP of ASEAN countries
The loss of more than 50% of the FDI inflow recorded in Indonesia mentioned in the previous paragraph, reflects on the GDP trend, the year in which Indonesia had the lowest growth, increasing the total of GDP from 2009 to 2009 of $ 290 billion or 5.4% growth. Indonesia, however, is both the country of the ASEAN group with the highest GDP and the one with the highest number of Inflows of FDI, again underlining the correlation between the two factors. Another case to consider is that of Singapore. The state recorded a GDP of 338 billion in 2017, which although lower than that of other countries of the ASEAN group, is the largest percentage in terms of the ratio between GDP and Number of inhabitants. Since 2015 Singapore as is the country with the fastest growth in investments received, reflecting in addition the strong growth rate in terms of innovation in the country, closing the 2017 with a capitale received of 17,92 bilions of dollars.
4. FDI DETERMINANTS

The previous analysis on the economy of the various countries of the ASEAN group and the analysis of the literature make it possible to establish empirically, what are the main factors that push a company to allocate an investment in one country rather than another. In fact, in the literature there are several models and theories that try to define a "rule" to explain the determinants of FDI, however attempts to give an objective view have been mostly in vain and it is impossible to define a more valid model than others. For example Ismail (2009) define a semi-gravity approach model to find an explanation to the determinants, he assessed that besides the market size for host and source country, other determinants such as distance, language and country at the borders, also attracts more foreign investor.

4.1 LITERATURE REVIEW ABOUT DETERMINANTS

From the analysis of the empirical literature, the following ten determinants having the greatest impact on the total inflow level of FDI have been identified, which will be explored shortly: Market Size, Openess to trade, Infrastructure, Wage, Human capital, Language, Inflation, Political Stability, Exchange rate, Tax incentives and Natural Resources.

The following determinants will be used in the following chapters as independent variables for the construction of our model. Their choice, as anticipated, is not accidental and numerous studies justify the following determinants as fundamental for developing countries. In fact, they are different from variables of more developed and innovative countries. It is possible to set the assumptions of Lokesha and Leelavathy (2012) as starting point, which show that the macroeconomic and microeconomic environment significantly influence both incoming and outgoing investments.; while Asiedu (2002) studies how the determinants of FDI can vary between the different regions and countries of the world. While the importance of the various determinants however varies from author to author, according to many one of the most important is the Market size of
demand, the studies of Asiedu in fact consider the Market size is consistently considered by empirical research as a driver of MNEs' FDI decision.

Flores (2007), for example, evaluates how market size is considered by the majority of empirical research as the main driver for the decisions of multi-national companies regarding decisions regarding FDI. In Literature the market size is measured in terms of GDP or GNP, per capita or not. On this purpose will be useful evaluating the research of Kang,Y & Jiang (2012) that figured out the economic growth rate as indicator for market size and how it is believed positive related with an inward of FDI. Is possible to have evidence of the different weight that the various authors attribute to the various determinants from the work of Grame O'Meara (2015) who defines as key drivers not the determinants, usually most cited such as the market size or the quality of the infrastructures, but with its model it highlights the centrality also of human capital and tax incentives. However, both of the mentioned determinants will be used in our model. Evidences of the link among the listed determinants and our research are available in literature; in support of this thesis Siddiqui and Aumeboonsuke (2014) conducted a research towards ASEAN top five countries: Indonesia, Malaysia, Singapore, Philippines, and Thailand. He finds that exchange rates, interest rates and GDP have significant impact on FDI inflows in Thailand, Malaysia, and Indonesia while Inflation affected more the amount of FDI in Thailand, Indonesia, and Singapore.

4.2 DETERMINANT ANALYSIS

Below is a list of the determinants assessed as the most significant impact level to justify an FDI in a given country in South-East Asia. Each determinant has an in-depth analysis to explain the reasons for these choices.

MARKET SIZE AND DEMAND

Multinational companies are more interested in markets with greater demand and which show constant growth in terms of GDP. Evidence supporting the use of this hypothesis as
a determinant, is provided by Azam & Lukman, (2010) who, examining the various factors that influence FDI, argue that investors look to a nation's GDP to understand its general economic condition. The research of the two authors also highlights how the use of GDP as a determinant gives indications both on the general state of health of the reference market itself, and on an estimate of the future situation by assessing its growth over the years. For example, in the previous section we saw that low GDP states, such as Cambodia, were the ones that attracted the least FDI inflow in the period analyzed.

Mustafa Şeref Akin (2009), instead, assessed that GDP is a not good indicator for justify an FDI, market seeking activities in particular, if considerate as per capita terms, but is necessary to evaluate it in terms of aggregation size. Anyway the GDP is expected in our model to have a positive impact on FDI.

**TRADE OPENNESS**

In literature there is no lack of evidence of how trade is a positive determinant for the demand for FDI inflow into the country, in poor terms the more a country's economy is open to external trade the more flexible it will be to attract foreign investment. The concept of opening a market is connected with the removal of barriers to access for commercial exchanges; this concept is also closely linked to export-oriented foreign direct investment, as thanks to greater openness, backward export operations in the country of origin are facilitated. One demonstration is provided by Marchant (2002) who focus on the relationship between foreign direct investment and the activity of trade in the global economy. The work shows evidences that FDI lead to increased exports and that exports also lead to increased FDI. As assessed before, one example in our research could be figure out in Brune. Maybe the most close economy among ASEAN countries, and also the one with less inflow of FDI in the area, according to data from ASEAN Secretariat (2017) The trade openness can be evaluated from the balance of payments, precisely the ratio between import and export over the total amount of GDO.
**HUMAN CAPITAL**

The quality of human capital is generally associated with increasing productivity and consequently with more efficient and increasing quality of output. Evidence in Literature is provided by a research of Laura Diaconu who provide a result that an higher stock of human capital increases the FDI inflows by making the investment climate more attractive for the multinational companies. The study of Markusen and Zhang (1995) provide a more comprehensive explanation of why the concentration of human capital is a fundamental determinant for a country's attractiveness. In fact, multinationals will be more likely to allocate high skilled phase of production in countries with more abundance of human capital, while low-skilled production phases in areas where there is a minority of skilled workers. Number of skilled labour in percentage, is possible to be assessed as the ratio between the total skilled workers (technical, administrative, etc) on the total supply of employer within a country.

**INFLATION**

The inflation rate is an important indicator for determining the economic stability of a country. It is defined as the ratio between the difference among consumer price index at \( t=0 \) and the historical consumer price index on the Consumer price index at \( t=0 \). Inflation is an important indicator because it is often associated with inappropriate state policies, in fact high inflation rates and its eventually high variability, translate into instability within the country and consequently to a diffidence towards multinational companies in investing in them. For the model can be assessed as the change in inflation rate per year.

**POLITICAL STABILITY**

Economics and social political stability make FDI possible, while the instability of these factors act as a deterrent towards them. Internal problems in the country can create barriers to entry for multinational companies by decreasing the confidence of foreign countries to undertake FDI.
Finding univocal evidence and an indicator to determine a level of political stability is not an easy task, but there is no lack of studies in the literature, often providing mixed evidence. Muhammad Younis et al. (2008) in their studies determine the key drivers of political instability in Southeast Asian countries. It turns out that insecurity has a negative impact on the flow of FDI and they determine factors such as the longevity of the regime, increase in the number of political parties, composition of the ICR risk rating, military spending as a percentage of the GDP etc. The issue of political instability is also linked to the level of corruption; in support of this thesis Hong Hiep Hoang * and Duc Hung Bui (2015) use the Control of Corruption index (ICGR) in order to measure the quality of the institutions in each country, as a higher index is synonymous with better country capacity to check for corruption.

INFRASTRUCTURE

Infrastructure plays a central role in developing economies. As we analyzed in the economic overview of the countries of the ASEAN area, not all the countries that are part of it can boast of solid and stable infrastructures. It is no coincidence that countries with better infrastructures, such as Thailand, Singapore and Malesya can boast a greater FDI inflow and on more innovative markets such as manufacturing and services, rather than those relating to the primary sector. In fact, according to plenty of evidence in literature, countries with better transport and communication infrastructures are generally capable of attracting more FDI.

An empirical evidence provided by Wheeler and Moody (1992) who argue that high quality infrastructure in developing countries attracts more FDI from developed countries, particularly from the United States, while this variable it becomes less crucial for already developed countries.

The quality of the infrastructure is universally recognized as having a positive impact on the amount of FDI. Two different categories could be used to measure their quality, one concerning communication networks, and the other concerning transport. To evaluate the communication network, the number of telephone lines for x people is assessed, while for the transport networks Khandaroo and Setanha (2009) they evaluate the quality of the infrastructure of transposed as the length in square km of drivable roads.
EXCHANGE RATE.

The exchange rate indicates the degree of price competition, as a high exchange rate translates into an increase in the competitiveness of exported products. According to the definition of Economic Times, the exchange rates is the price of one currency in terms of another currency. The exchange rate has a dual effect on FDI, affecting them both from an allocation point of view and in terms of the total amount of inflows. According to the study of Linda S. Goldberg, the depreciation of currencies could have two potential effect on total foreign investment: reducing salaries and production costs and the weakening of the "relative Wage" if the exchange rate fluctuation is anticipated, as it increases the total cost of the project. The exchange rate is of particular importance for states that receive FDI primarily for the purpose of re-importing the final assets into the country of origin (export-oriented-platform) since the increase in the exchange rate can be a barrier application of this strategy. For the cases of our interest, Mamadou (2002) studies the relationship between FDI in the ASEAN area and the exchange rate, highlighting in conclusion, a negative correlation between the determinant and FDI inflow in South-East Asia.

TAX AND INCENTIVE TO INVEST

The inflow of FDI into host countries will also depend on the type of incentive that the host countries will guarantee to the multinational company.

In recent years many development countries have found themselves in the direction of attracting human capital and new technologies; as anticipated in Chapter 2 an important case is the Thailand one. According to the Nordeatrade.com report the Thai Board of Investment (BOI) offers a series of incentives in six industrial sectors: eight years of tax exemptions for companies and reduction 50% tax for businesses for five years, double deduction for transportation, electricity and recovery. A support for this hypothesis concerns the studies by Valev (2003) which claim that the government tries to attract FDI for a long time by offering tax incentives to businesses. Despite the importance of tax incentives, in the literature these are not seen as a main determinant of the choice of
allocation of FDI, but are often considered as secondary; The UNCTDAT in its global survey on tax incentives and FDI, clarifies that incentives are secondary to other determinants, such as market size or the availability of skilled labor. Considering it tax incentives are expected having a moderate positive impact on the inflow of FDI.

**NATURAL RESOURCES**

It is possible to deduce the availability of resources as a critical determinant for the choice of direct foreign investment already from the theory of the internalization of the eclectic paradigm of Dunning (2009). In literature, however, the topic has been taken up several times, for example Jenkins (2002) He claims that the existence of natural resources emerged as a gravitating force for various multinationl. They are the main reason why Resource seeking FDI or generally vertical type FDI are undertaken. Akthar et al (2013) argue that in particular the producers of primary goods and manufacturing use the FDI strategy primarily to guarantee access to real physical resources such as oil, minerals, raw materials.

**WORK FORCE & PARTECIPATION RATE**

The availability of labor force (often at low cost) is another of the determinants often identified in the literature for the decision of the FDI position. As a determinant it can be analyzed both from the point of view of the total workforce and by percentage of participation, that is the total number of individuals who are employed or looking for a job. The labor force becomes even more significant in the countries that base their activity on production by requiring a large amount of labor force, but the quality of human capital is not fundamental.

Danciu (2015) adds value to this thesis by supporting the workforce as a fundamental determinant, precisely for countries like Roania, which base their attraction towards FDI on production activities. Furthermore, as seen in Chapter 2, many countries target Indonesia and the Philippines precisely because of the large amount of their workforce.
5. THE REGRESSION MODEL

Following the analysis on the available literature regarding the 8 states chosen in the analysis of the ASEAN group, we will develop a model that will evaluate the impact of the various determinants, chosen in the previous chapter, on the decision of the target country for the allocation of investments by a foreign country. The model developed will be a Conditional Logit econometric model, evaluated using the STATA Analytics and Data Science software. In parallel to the research in literature, a Dataset has been created and modeled, which we will focus on shortly, from which was possible to extract the data necessary for the creation of the dependent variable and the independent ones. Furthermore In the next paragraphs the econometric model chosen will therefore be briefly described, made clear on the composition of the dataset used and shown the results obtained with our model, to finally highlight the evaluations and conclusions that will derive from it.

5.1 THE CONDITIONAL-LOGIT

The Conditional Logit model described above is based on the logistic regression model. This type of model sees the use of a dichotomous variable, that is, which can take two separate distinct values, in our case the dependent variable can take values defined in the range:

\[ C = [0,1] \]

The objective of the model is to determine how likely an observation can generate one of the two values of the dependent variables.

The model is based on the probability of an individual choose a product j; this probability is defined as:
With the use of the just mentioned probability will be able to define our Likelihood function:

\[ P_{ij} = \frac{e^{\beta^t Z_{ij}}}{\sum_k e^{\beta^t Z_{ik}}} \]

\[ I(\beta) = \sum_{i=1,n} \sum_{j=1,j} y_{ij} \log(P_{ij}) \]

With \( y \) that will be the dependent binary variable, defined by an individual \( i \) and a \( j \) product that defines the number of choices for each individual. Parameters will depend on the model. The goal is to maximize the likelihood function, but there is no exact solution to this type of model, so STATA will be used to find a solution using an iterative algorithm.

### 5.2 DATASET AND VARIABLES

To allow a correct analysis with the use of our regression model it was necessary to create a clean dataset from which to extract the data necessary for the definition of the dependent variable and the independent ones.

The dependent variable has been defined as "Choice". It is a dummy variable, therefore with only two possible values, in our case 0 and 1.

fdiMarkets dataset, provided by Financial times, (Example of the dataset in Annex) was used to define this variable. In order of a good fit with the model and full availability of data, has been choosen the period between 2003 and 2017, Brunei and Laos were
excluded from the analysis as well, keeping 8 out of 10 ASEAN countries. The exclusion was again due to the unavailability of some data, as well as the two countries in question did not attract a significant number of FDI in the period analyzed, not making them critical for our research. The dataset contains all the information regarding the projects and their types with data relating to, reference industry, type of activity, type of investment, invested capital, country (city and region) of origin of the project and obviously the country (city and region) of destination.

For the creation of the dependent variable, a reference code called “id”, has been attributed to each investment (including all types), the “id” is shown as a number, different for any different investment. If this investment was undertaken in a certain destination county, then the choice variable will be allocated the value 1, otherwise 0. Once the dependent variable was defined, it was necessary to define a significant number of independent variables, which will then be the regressors of our model. Their definition comes from the analysis of the literature on the determinants of the previous chapter and were subsequently extracted from two different datasets provided by the World Bank. The data sets in question are those related to the World Development Indicators, referred as WDI and World Government Indicators, referred as WGI. The former have made it possible to extract variables referring to the market, while the latter specific to the state in question, within the WGI are in fact present indicators concerning corruption, political stability, etc. Table 3, shows the choosen variable, with related indicator of the dataset and determinants.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Determinant</th>
<th>Indicator Name</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>pol_stability</td>
<td>Political Stability</td>
<td>Estimation of Government Effectiveness</td>
<td>WGI</td>
</tr>
<tr>
<td>mobile_phones</td>
<td>Infrastructure</td>
<td>Mobile cellular Subscription</td>
<td>WDI</td>
</tr>
<tr>
<td>taxes</td>
<td>Incentive to Invest</td>
<td>Taxes on Income, Profit and Capital Gain</td>
<td>WDI</td>
</tr>
<tr>
<td>hc</td>
<td>Quality of Human Capital</td>
<td>Human Capital</td>
<td>PWT</td>
</tr>
<tr>
<td>trade_sh</td>
<td>Trade Openness</td>
<td>Trade (% of GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>gdp_pc</td>
<td>Market Size</td>
<td>GDP per Capita (US$)</td>
<td>WDI</td>
</tr>
<tr>
<td>nat_res_rent</td>
<td>Availility of Natural Resources</td>
<td>Total Natural Resources Rent (% of GDP)</td>
<td>WDI</td>
</tr>
<tr>
<td>part_rate</td>
<td>Partecipation Rate</td>
<td>Labor Force Participation Rate (age 15 - 64)</td>
<td>WDI</td>
</tr>
<tr>
<td>inflation</td>
<td>Inflation</td>
<td>Inflation (annual %)</td>
<td>WDI</td>
</tr>
<tr>
<td>exchange</td>
<td>Exchange Rate</td>
<td>Real Effective Exchange Rate)</td>
<td>WDI</td>
</tr>
</tbody>
</table>

Table 3. Variable choosen for the regression
Below a brief description of variables used.

*pol_stability*

data from the WGI dataset, represents an estimate of the quality of a given government regarding public and civil services. It represents political stability and is expected to have a positive impact on the choice of FDI.

*moble_phones*

represents the number of cell phones present in a state, is an excellent estimate of the quality of communication and information infrastructures within a country. Quality infrastructures increase the profitability of an investment, so they have a positive impact on FDI, the source for the data will be the WDI dataset.

*taxes*

represents the percentage of taxes on income, profits and capital earned. Lower taxation obviously has a positive impact on the choice of FDI; as lower taxation translates in an incentive to invest, since both from the point of view of net gains and from the potential use of lesser debt. The source of this data is the WDI dataset.

*hc*

The variable represents Human Capital, ago is extracted from the PWT dataset and represents how much capital each state loses from a lack of education and health.

*trade_sh*

used to measure the opening of a market to foreign markets, is extracted from the WDI dataset and represents a percentage of the sum of imports and exports on the country's total GDP, the impact is expected positive.

*exchange*

data from WDI dataset, a more competitive exchange rate is capable of attracting more FDI; it represents the real effective rate with respect to the American dollar.
"gdp_pc"

was chosen as an indicator to measure the size of the merxato. It represents the sum of the gross value of all products in the target state of the FDI divided by the population number. A GDP per capita has a positive impact on the FDI.

"nat_res_rent"

represents the sum of the natural resources of the various countries, is extracted from the WDI dataset and also has a positive impact as, as seen, many ASEAN countries are still chosen for their great availability of resources and materials first.

"Part_rate"

the number of people hired or looking for work between 15 and 64 years, this variable represents the availability of the target state's workforce. The source is the WDI dataset.

"Inflation"

inflation is an excellent indicator of the country's economic situation, as it represents its stability. It can have both a positive and negative impact and is given by the general variation in prices as a percentage. The source is the WDI dataset.

After defining the independent and dependent variables, the next step was the creation of a single dataset on which to apply the CLogit. To make this possible the following steps have been carried out:

- Uniform the nomenclature of a column designated among the datasets, in our case we have chosen to rename the column concerning the country of destination as dest
- Join the datasets available on this column through the STATA merge command.

Once a consistent dataset has been obtained for the analysis, regressive analyzes can be started.
The two main steps to evaluate the results of our analysis are the evaluation of the p-value and an assessment about the sign of the coefficient, obtained through the application of the conditional logit. All the results about p-value are shown in the fifth column of Table 4, where is indicated as $P > |z|$. By definition the more our variables show a high p-value the less they will be significant in terms of impact on the dependent variable and so on attractiveness for FDI in a given country, on the contrary a low p-value (below 1%) indicates a significant impact. The entire result obtained from the regression without any constrain on dataset is shown in Table 4 shown below.

As discussed in the literature, it is not surprising that the highest impact variables are:

- the GDP per capita, therefore the size of the market, synonymous with stability and good health of the economy of the host country

- Human Capital, which entail a great importance due to the increase in the complexity of the type of investments, and therefore also in the know-how required

- Political stability, companies are discouraged from investing in unstable countries, with high government pressure and high levels of corruption

- Exchange rate, since a lower exchange rate is related to the competitiveness of the country's economy globally

- Taxation and therefore incentive to invest, in line with the literature, a lower taxation is preferred. In our case, for example, European companies decide to invest in moving their Headquarter to countries with lower tax burdens and greater incentives. In chapter 3 we find, for example, Singapore where the activity or reallocation of Headquarters rank fifth among industry Activities.
• Participation Rate and Work force as expected is significant and with a positive impact on the dependent variable, as assessed in literature one of the reason why ASEAN is chosen for Foreign investment is the availability of workforce, since young age of workers and often at lower cost than others countries.

Nonetheless, there are significant and interesting considerations on the determinants which do not have a particular impact on the FDI decision. The Openness to the market shows a p-value of 0.012, which despite being a value close to 5% makes the variable less significant than others.

The Result is not surprising because the relationship between trades and FDI is often ambiguous; for example in some cases FDI are not undertaken in substitution of trade but are complementary. However this also may explains the reasons why surprisingly in column 1, a negative value is attributed to this determinant; an incentive to export for the host countries would be a deterrent for market-seeking FDI which try to access a target market.

As expected, high levels of inflation have a negative but only partially significant impact. A general increase in prices during the period analyzed did not particularly discourage investments in the ASEAN group.

The number of mobile phones, a mirror of the quality of information and communication infrastructures obviously has a positive but only partially significant impact, probably because the industrial activities in South-East Asia still see Manufacturing and Construction as main activities, therefore a quality of physical infrastructure rather than information one (such as drivable road for example) could be preferred.

For the whole period analyzed surprising the availability of resources has not been evaluated as critical factors; this can be explained by the decreasing in kind of investment like extraction, directly related to natural resources, toward an slightly increase of others kind of investment for instance linked to services. Another factor is also because ASEAN countries does not provide a large amount of natural resources such as others development countries.
In the regression showed in Table 5 are shown the result obtained excluding Singapore by the regression. Singapore has 13.8% of FDI out of the ASEAN total for capital invested and the first one for number of FDI received. Unlike the neighboring countries, that invest more in activities such like Manufacturing or Construction, Singapore receive investment in different activities such as in ICT, Business & Financial Services, Headquarters and Logistics.

The table shows the results obtained: We note that the exchange rate is particularly insignificant with a p-value of 48.9% and a positive sign at coefficient. The exchange rate in this case might be an interpretation for assessing the economic power of a country.

Taxes, as expected still have a negative impact but a decrease in significance, investments in developing states such as Vietnam, Cambodia or Myanmar, have much more competitive prices, so the savings on labor costs compensate for any higher costs of taxation.

A change of sign can be figured out also in the GDP per capita variable; as will be evidenced better in the following industries analysis, a possible explanation could be that foreign countries looking for investment that provide them low cost of labor, peculiar characteristics of countries showing a lower GDP per capita. It is so necessary to underline that probably the variable gdp_pc is capturing the effect of the cost of labour,
so in order to have a more in-depth result, a variable related to cost of labor should be inserted in the model, however has not been possible since the unavailability of data.

Finally, the mobile phones variable concerning information and communication infrastructures also becomes less relevant. Singapore is the state of South-East Asia to boast the best technological infrastructures, while many of the neighboring countries are still in a phase of transition towards a more complex structure, therefore excluding it it is normal to expect a decrease in the significance of this variable.

| choice            | Coef.   | Std. Err. | z      | P>|z| [95% Conf. Interval] |
|-------------------|---------|-----------|--------|----------------------|
| gdp_pc            | -0.000697| 9.39e-06  | -7.42  | 0.000               | -0.000881 - 0.000513 |
| trade_sh          | 0.0054278| 0.006132  | -8.85  | 0.000               | -0.0066297 - 0.0042259 |
| exchange          | 1.830291 | 1.217706  | 15.03  | 0.000               | 1.591625 - 2.068957  |
| inflation         | -0.0186494| 0.032953  | -5.66  | 0.000               | -0.025108 - -0.0121908 |
| mobile_phones     | 8.24e-10  | 2.67e-10  | 3.08   | 0.002               | 3.00e-10 - 1.35e-09  |
| exchange          | 3.25e-06  | 4.70e-06  | 0.69   | 0.489               | -5.96e-06 - 0.000125 |
| exchange          | -0.039132  | 0.030509  | -1.28  | 0.200               | -0.0098929 - 0.0020665 |
| part_rate         | 0.0502973  | 0.031549  | 15.94  | 0.000               | 0.044139 - 0.0564808 |
| nat_res_rents     | 0.0740408  | 0.065044  | 11.38  | 0.000               | 0.061224 - 0.0867893 |

Table 5. Conditional – Logit Result on dataset, Excluding Singapore
Tables 6 & 7 therefore summarize the results of the regressions for the Industrial activity of Manufacturing. We notice that results are not too different for both regressions, attracting Singapore not a large amount of FDI as regards the Manufacturing activities therefore the model is not affected very much overall. One of the strangest and most surprising results is the negative impact of the GDP per Capita, with or without the inclusion of Singapore in the model. An explanation could be given by the fact that Manufacturing companies tend to allocate their activities in countries with smaller market size, which are usually synonymous of lower costs such as that of labor, that as already mentioned is captured by the gdp_pc variable. In both cases, regardless of the type of investment, we find a significance of Human Capital with a positive impact, even if this assumption is not totally in line with that of the previous result, it agrees with all the evidence found in the literature.

The variable trade_sh, is negatively correlated to the number of FDI, this can be explained by the Tariff Jumping, which occurs when a foreign company invests abroad to avoid trade barriers. Including Singapore in the regression, the p-value rises to 0.9% relative to the increase in the number of observations.

The part_rate, in line with the literature, is significant and has a positive impact, not surprisingly, the large availability of workforce is one of the main reasons for investment in ASEAN.

Another difference between the two models is in the impact of natural resources. Obviously these have a positive impact, but they lose significance by including Singapore in the model, probably given the lower availability of natural resources in Singapore where the companies that produce them tend to import natural resources from countries that have an abundance such as Thailand or Indonesia.
The two subsequent regressions, as already anticipated, are aimed at the sample relating only to the investments of the Business Services, Retail & Sales, Marketing and support sectors, also here it will be evaluated both by including Singapore in the model and not.

A necessary observation concerns the number of observations, higher than those of Manufacturing. It should be clarified that this happens because unlike manufacturing, we
have chosen to aggregate three different types of investments, therefore we will have a greater number of data for the sample and consequently a more accurate result.

Compared to the regressions carried out on Manufacturing, we immediately see that the GDP for Capita returns to "normal" values. In line with the literature it returns to have a positive impact and high significance; it may happens because investments in the services sector seek a larger market and at times oriented not only to serve the host country but also foreign countries. As shown in table 9, excluding Singapore from the model, we note that the significance of the gdp_pc decreases reporting a p-value of 0.1%. As shown in chapter 3, Singapore sees Business Services and Sales, Marketing and Support as second and third type of investments in number received, reaching a total of FDI received for 18.63 bilions of dollars, the largest figure of all the ASEAN group. It is also one of the countries with the largest GDP per capita in the world, therefore it is in line with the expectations that its exclusion from the model will result in a decrease in the significance of the GDP per capita.

Inflation, as reported in both table 8 and table 9, loses significance in the services sector, presenting in the two cases p-value of 27% in the first and 27.3% in the second, but presenting as expected a negative impact. The loss of significance may indicates that the fluctuation in prices did not affect the choice of the country of the investment. Another interesting and unexpected consideration is the loss of significance of the variable referring to Human Capital, compared to the analysis of the manufacturing sector. Although this normally has a positive impact, the p-value has a value of 3.7% (however significant at 5%). A possible explanation might be provided by the fact that for example Services Activities, may prefer hiring workers from their country of origin, instead of the country of opening of the new branches, making the Human Capital of the country of destination less important. An unexpected result is that regarding the Information Infrastructures, indicated by the number of mobile phones. A positive impact and high significance were expected, given the nature of the services. On the contrary, the result shows low significance and negative impact. The result is probably brought by the fact that the variable only weak represent the level of infrastructures; in fact providing a precise definition of the quality of the infrastructures is not easy. The exchange rate returns to be significant whether Singapore is included in the analysis or not, since because probably the variable shows the level of macroeconomic power of the country.
For services, investment incentives, understood as taxation, are less significant than manufacturing activities; while in line with the literature in both cases we have a high Significance of the effectiveness and robustness of the government.

Table 8. Conditional – Logit On Services Activities, No constrain on Countries

| choice          | Coef.    | Std. Err. | z      | P>|z|  | [95% Conf. Interval] |
|-----------------|----------|-----------|--------|------|----------------------|
| gdp_pc          | 0.0000102| 3.07e-06  | 3.32   | 0.001| 4.18e-06             | 0.0000162 |
| trade_sh        | -0.002611| 0.008557  | -2.41  | 0.016| -.0037342             | -.0003878 |
| exchange        | -0.0057088| 0.001723  | -1.10  | 0.270| -.015963              | 0.004288  |
| inflation       | 0.2614427| 0.1210578 | 2.16   | 0.031| 0.0241738             | 0.4987116 |
| mobile_phones   | -6.44e-10 | 3.98e-10  | -1.62  | 0.105| -1.42e-09             | 1.35e-10  |
| exchange        | 0.0000429| 6.64e-06  | 6.46   | 0.000| 0.0000299             | 0.0000559 |
| taxes           | -0.0119542| 0.0043776 | -2.73  | 0.006| -.0205343             | -.0033742 |
| part_rate       | -0.0024207| 0.0036109 | -0.67  | 0.503| -.009498              | 0.0046566 |
| nat_res_rents   | 0.0337937| 0.006905  | 4.83   | 0.000| 0.020926              | 0.047948  |

Number of obs = 41,836  
LR chi2 (9) = 1905.63  
Prob > chi2 = 0.0000  
Pseudo R2 = 0.0813

Log likelihood = -10771.608

Table 9. Conditional – Logit on Serviced Activities, Excluding Singapore from regression

| choice          | Coef.    | Std. Err. | z      | P>|z|  | [95% Conf. Interval] |
|-----------------|----------|-----------|--------|------|----------------------|
| gdp_pc          | 0.0000108| 2.76e-06  | 3.90   | 0.000| 5.36e-06             | 0.000162  |
| trade_sh        | -0.001309| 0.007854  | -1.67  | 0.096| -.0028474             | 0.000213  |
| exchange        | 0.2121342| 0.106925  | 1.98   | 0.047| 0.002565              | 0.4217034 |
| inflation       | -0.0055609| 0.005773  | -1.10  | 0.273| -.0155123             | 0.0043905 |
| mobile_phones   | -5.14e-10 | 3.85e-10  | -1.33  | 0.182| -1.27e-09             | 2.41e-10  |
| exchange        | 0.0000418| 6.42e-06  | 6.52   | 0.000| 0.0000293             | 0.0000544 |
| taxes           | -0.0098112| 0.0040361 | -2.43  | 0.015| -.0177219             | -.0019005 |
| part_rate       | -0.0051897| 0.0034944 | -1.49  | 0.138| -.0120386             | 0.0016591 |
| nat_res_rents   | 0.0313093| 0.0067344 | 4.65   | 0.000| 0.0181101             | 0.0445084 |

Number of obs = 53,868  
LR chi2 (9) = 3187.12  
Prob > chi2 = 0.0000  
Pseudo R2 = 0.1081

Log likelihood = -13149.543
The analysis continues with the application of the C-Logit model on the industrial activity of the construction sector. Construction activities rank Third for Invested Capital, but Seventh for Number of Investments in the entire ASEAN group, clearly given the higher cost of each investment compared to those services, these will tend to be less but a more concentrated capital. Although the number of observations is significantly lower than in the production and services sectors, some conclusions can be drawn. In both regressions, you find again the variable gdp_pc with a negative value coefficient, as the construction activity has a concentration in smaller markets and therefore with a lower labor cost, it also includes including that excluding Singapore from the significant analysis. Parallel to this result, the variable inherent in Human Capital is also negative, since the construction activity does need an high level of education or know-how, however we figure out that in this regression the variable hc is not significant. The mobile_phones variable loses significance and shows a negative sign to the coefficient, a possible explanation for both the result might be that the type of activity prefers a quality of physical infrastructure over communication. In line with the literature, in both cases the variable gov_effectivness has a positive impact, but loses slightly of significance excluding Singapore from the Dataset although postponing less than 5%. Finally, always in line with the literature, we have a positive impact on the availability of resources and the participation rate. The former, however, are not significant at all, presenting in both cases very high p-values with 0.816 and 0.198 due to the scarce availability of natural resources in some ASEAN countries. The second, on the other hand, in both cases has a certain significance, being close to 5% since obviously the availability of work force is essential in activities such as Construction.
The last regression will be carried out considering only more specific Activities and Destination Country. The investments analyzed are those in Logistics and Research and Testing activities. Contrary to previous Regressions, it was decided to exclude Myanmar and Cambodia instead of Singapore. In the period analyzed, as shown in Figure 32, the Cambodia and Myanmar attracted a significantly lower number (respectively 38 and 11) of FDI towards the Logistics and Destruction activities, compared to the other countries of the ASEAN group. Is needed to be underlined that the Result is not in absolute terms, but relative to the Share of FDI on the total number of FDI inflow in the two countries, as shown in Figure 30.
A first analysis of the coefficients shows results rather in line with the literature. The GDP returns to have a positive impact, because the Logistics and distribution activities obviously need a bigger market; in fact the variable is among the most significant presenting a p-value close to 10%. The opening of the market also shows a positive coefficient, since obviously logistical activities are often aimed at foreign states so easy access to other markets is necessary. The exchange rate, on the other hand, shows a negative coefficient, a high exchange rate in fact can have repercussions on the total cost of investments of a logistical type, as well as representing a non-competitive market. The most significant variable with a p-value of less than 1% and with a positive impact is that of natural resources, probably linked to energy-type resources (for example gasoline) whose presence is fundamental for distribution activities,
Table 12. Conditional - Logit on Logistic and Distribution Activities, Excluding Cambodia and Myanmar

| choice            | Coef.  | Std. Err. | z     | P>|z| | [95% Conf. Interval] |
|-------------------|--------|-----------|-------|-----|---------------------|
| gdp_pc            | 0.000276 | 0.000103  | 2.69  | 0.007 | 7.47e-06, 0.000478  |
| trade_sh          | 0.001444 | 0.0022748 | 0.63  | 0.525 | -0.0030141, 0.0059029 |
| hc                | -1.258571 | 0.4790737 | -2.63 | 0.009 | -2.197538, -0.3196034 |
| inflation         | 0.0208143 | 0.0196825 | 1.06  | 0.290 | -0.0177627, 0.0593914 |
| gov_effectiveness | 0.0422022 | 0.3479749 | 0.12  | 0.903 | -0.6398161, 0.7242205 |
| mobile_phones     | 6.48e-10 | 1.29e-09  | 0.50  | 0.615 | -1.87e-09, 3.17e-09  |
| exchange          | -0.000302 | 0.000226  | -1.34 | 0.182 | -0.000745, 0.000141  |
| taxes             | -0.0020316 | 0.0141232 | -0.14 | 0.866 | -0.0297124, 0.0256493 |
| part_rate         | 0.0156106 | 0.0119462 | 1.31  | 0.191 | -0.0078035, 0.0390248 |
| nat_res_rent      | 0.0974939 | 0.0261775 | 3.72  | 0.000 | 0.046187, 0.1488008  |
5.4 CONCLUSION AND ASSESSMENT

Following the nine regressions carried out, it is possible to evaluate the following results and formulate some hypotheses, complementary to the results present in the literature. Table 13 and table 14 show a summary of all the result obtained by the nine regressions. Tot represents the first regression undertaken, without any constrain on the Dataset, Tot_NoSin the one excluding Singapore from the Dataset and so on, following the order of analysis provided in the previous paragraph. The most important result from our analysis have to be found out in the sign of the coefficient and on p-value. P-value are in the table represented by stars, which each of them represents its significance, respectively * p<0.05, ** p<0.01, *** p<0.001.

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Legend: * p<.05; ** p<.01; *** p<.001

Table 13. Summary of Conditional - Logit Result obtained

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</table>

Table 14. Summary of Conditional - Logit Result Obtained
At first glance we have obtained two stable results: trade_sh and hc; the first that is always negative (Excepted in the last regression in which is not significant) and the second that is almost always positive, but if negative not significant. The two variables looks robust in changing of the model.

Following the possible assessment for the result obtained.

A High GDP per capita has a negative impact on investments coming from companies that do not require qualified workforce such as manufacturing, and so that are looking for target countries with a smaller market dimension. Confirming this hypothesis, we have seen that by removing Singapore from the Dataset the coefficient turn negative. This could derived by the fact that Singapore is the country with a higher workforce quality and market dimension all over the others. Shifting the regression to services or Logistics Activities the GDP Per capita Impact goes back to a positive one.

*Exchange Rate*, is or positive or not significative. The result is surprisingly and a possible general explanation may be that the exchange rate capture the level of macroeconomic power of the country, not captured by the other variables.

*High taxes* disincentive investment for all industry activities and in all the countries analyzed, but excluding Singapore the amount of taxes reduces its impact. A possible explanation might be because others ASEAN countries the save on production cost is for the most provided by lower cost of labor.

*Inflation* tends not to influence the choice of the country of destination for FDI and almost always has a negative impact on investments. The negative coefficient is perfectly in line with what has been found in the literature, as the price variation is synonymous with macroeconomic stability and therefore greater instability translates into a disincentive to investment.

About the *Political Stability*, Southeast Asia has seen strong growth only in the last decades, in which the problem of economic stability was secondary to the problem of political stability. In seven of the nine regressions carried out the variable *gov_effectiveness* (political stability) was particularly significant for the choice of investment with a p-value of less than 0.01. The exclusion of Singapore from the analysis, a more innovative and industrialized state than the others of the ASEAN group, leads to
a lesser relevance of information infrastructures as a determinant of investments. From a general decrease of the mobile phones variable These, in fact, also linked to more modern strategies such as data policy, are more relevant in highly complex sectors such as those of the Financial Service, Banking or Healthcare, mainly concentrated in Singapore.

*Human Capital* is not always a significant variables; but already anticipated, looks robust at changing of the model. Companies that invest in financial services, marketing or Logistic prefer the use of internally developed resources, except for research activities where a strong human capital is necessary. This might be assessed from the low relevance of the Human Capital variable in the regressions regarding this type of investment. The presence of a lot of human capital in the area would favor the use of local resources. It should be pointed out that the variable hc is a complicated variable to be calculated; therefore it could be subject to imperfections.

The availability of natural resources has not always a significant impact. As demonstrated in Chapter 3 It is more significant if the most industrialized countries undertake investments, including China, Japan and the United States, which carried out a total of approximately 8000 FDI between 2003 and 2017. In fact, countries with greater market size and more industrialized, may prefer FDI efficiency-seeking, both horizontal and vertical, for access to natural resources at lower cost that are difficult to find within their territory.
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