UNIVERSITY OF LJUBLJANA SCHOOL OF ECONOMICS AND BUSINESS

MASTER THESIS

# THE IMPACT OF FOREIGN DIRECT INVESTMENT ON SLOVENIAN ECONOMIC GROWTH

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AZALIYA BAYMUKHAMETOVA

#### **AUTHORSHIP STATEMENT**

The undersigned Azaliya Baymukhametova, a student at the University of Ljubljana, School of Economics and Business, (hereafter: SEB LU), author of this written final work of studies with the title "The impact of foreign direct investment on Slovenian economic growth", prepared under supervision of Denis Marinšek

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# **TABLE OF CONTENTS**

INTRO	ODUCTION	1
1 FO	OREIGN DIRECT INVESTMENT	2
1.1	Types of FDI	2
1.2	Multinational corporations	3
1.3	Entry model	4
1.4	History of FDI	6
1.5	FDI current trends	8
2 TH	HEORIES OF FOREIGN DIRECT INVESTMENT	9
2.1	Theories assuming perfect markets	9
2.1	.1.1 The Differential Rates of Return Hypothesis	9
2.1	.1.2 The Portfolio Diversification Hypothesis	10
2.1	.1.3 Output and market Size hypotheses	10
2.2	Theories assuming imperfect markets	10
2.2	.2.1 Industrial organization hypothesis	11
2.2	.2.2 Internalization hypothesis	11
2.2	.2.3 Location hypothesis	12
2.2	.2.4 The eclectic theory	13
2.2	.2.5 Product Life Cycle hypothesis	13
2.2	.2.6 Oligopolistic Reactions Hypothesis	14
3 MA	ACROECONOMIC EFFECTS OF FOREIGN DIRECT INVESTMEN	T IN
2 1	The affect of EDL on Delence of Desiments	14
5.1	The effect of FDI on balance of Fayments	15
3.2	The effect of FDI on Employment	15
3.3	FDI and Trade Flows	16
3.4	FDI and Technology	16
3.5	FDI and inter-industry linkages	16
3.6	The effect of FDI on market structure	17
3.7	The effect of FDI on environment	17

	3.8	The effect of FDI on economic growth	18
4	FO	REIGN DIRECT INVESTMENT IN SLOVENIA	. 22
5	RE	SEARCH QUESTIONS AND HYPOTHESIS	. 28
6	ME	THODOLOGY AND DATA	. 29
	6.1	Dependent Variable	30
	6.2	Independent Variables	30
	6.3	Strategy and Results	31
7	DIS	SCUSSION	. 39
C	ONCI	LUSION	41
R	EFER	ENCE LIST	44
A	PPEN	DICES	. 51

# LIST OF FIGURES

Figure 1: World FDI inflows during 2005-2019	7
Figure 2: FDI net inflows in Slovenia (% of GDP)	. 24
Figure 3: Inward Foreign Direct Investment in Slovenia by region, 31 December 2019	. 26
Figure 4: Ease of doing business rankings: Slovenia, 2020	. 27
Figure 5: GDP growth in Slovenia (1995-2018)	. 32
Figure 6: GDP per capita, 1995-2018	. 34
Figure 7: Total FDI inflows in Slovenia during 1995-2018	. 35
Figure 8: FDI inflows in primary sector in Slovenia during 1995-2018	. 36
Figure 9: FDI in secondary sector in Slovenia during 1995-2018	. 36
Figure 10: FDI in tertiary sector in Slovenia during 1995-2018	. 37

# LIST OF TABLES

Table 1: FDI in Slovenia – immediate and ultimate country presentation (2019)	
Table 2: The main sectors in the research	
Table 3: Descriptive statistics	
Table 4: Coefficients and p-values	39

## LIST OF APPENDICES

Appendix 1: Povzetek (Summary in Slovene language)	. 53
Appendix 2: The calculated data for inward FDI by sectors	. 54

### LIST OF ABBREVIATIONS

sl. - Slovene

ADF – Augmented Dickey-Fuller

**AJPES** – (sl. Agencija Republike Slovenije za javnopravne evidence in storitve); Agency of the Republic of Slovenia for Public Legal Records and Related Services

ANOVA - Analysis of Variance

**ARDL** – Autoregressive Distributed Lag

**CESEE** - Central, Eastern and South-eastern Europe

**CIP** – Corruption Perception Index

 $\mathbf{EG}-\mathbf{Economic}\ growth$ 

**EIB** – European Investment Bank

EMŠO – (sl. Enotna Matična Številka Občana); The Personal Registration Number

EU – European Union

FDI – Foreign direct investment

**GDP** – Gross domestic product

IT – Information Technology

ICT – Information and Communication Technology

LLC – Limited Liability Company

M&A – Mergers and acquisitions

MNC – Multinational corporation

**OECD** – Organization for Economic Co-operation and Development

**OLS** – Ordinary least squares

PP - Philips-Perron

SPIRIT – (sl. Javna agencija Republike Slovenije za spodbujanje podjetništva, internacionalizacije, tujih investicij in tehnologije); Slovenian government Business Development Agency

SURS – (sl. Statistični Urad Republike Slovenije); Statistical Office of the Republic of Slovenia

 $\mathbf{U}\mathbf{K}$  – The United Kingdom

- $\boldsymbol{UNCTAD}-\boldsymbol{United}$  Nations Conference on Trade and Development
- USA- The United States of America
- **VIF** Variance Inflation Factor
- $WITS- World\ Integration\ Trade\ Solution$
- **WWI** The First World War
- $\ensuremath{\textbf{WWII}}\xspace$  The Second World War

# INTRODUCTION

Slovenian economy is young compared to other countries. The collapse of Yugoslavia was the first step for the Slovenian economy to enter the globalized world. Slovenian young open economy started to provide opportunities for foreign investors. Two years before the EU accession many foreign investors saw a high potential in the Slovenian economy. As a result, the foreign direct investment (FDI) inflows in Slovenia dramatically increased in 2002. Foreign direct investment is one of the important parts of Slovenian economic history, that is expanding even today. However, the concept of FDI and its impact on the host country economy is still debatable.

In general, focusing on the results of research analysis of FDI and economic growth (EG) relationship vary from country to country. On one hand, there are a lot of research papers that prove the positive effect of FDI on a host country's economic growth. On the other hand, there are many other evidence that prove the negative effect of FDI on the host country economy. It is still a big question in many countries, does FDI motivates or harms the economic growth of the host country. The same question is also suitable for Slovenia. Slovenia is a young country compared to other developed counties and there is a lack of analysis of the FDI concept in the Slovenian economy. Therefore, I see it is useful to provide more analysis on the relationship between FDI inflows and economic growth in Slovenia.

In my master thesis, I am going to start with the theoretical background of FDI in more detail. Firstly, it is important to present the definition of FDI and its types. Also, in the first part of my master thesis, I am going to include multinational corporations and the types of their entry models. At the end of the first part, I am going to describe the history of FDI and its recent trends including the impact of Covid-19 pandemic situation on global FDI.

In the second part of my master thesis, I am going to focus on the main theories of FDI that explain the reason why foreign companies invest in other countries and briefly describe its consequences in the macroeconomic and microeconomic environment. I am going to focus on the theories that assume perfect and imperfect market.

In the third part, I am going to focus on the effect of FDI on the host country's economy. It will include the effect of FDI on balance of payment, employment, trade flows, technology, industry, market structure and environment. Moreover, the third part will include the effects of FDI on the macroeconomic level in theory and the empirical evidence that focus more on the relationship between FDI and EG.

The fourth part will describe the history of FDI in Slovenia and present the detailed statistical facts of FDI during 1995-2018. Also, I am going to illustrate which regions of Slovenia have the highest level of FDI inflows. Moreover, the current advantages that motivate investors

to invest to Slovenia will be presented. On the other hand, the barriers for foreign investors will be also discussed.

In part number five I am going to present my research questions and hypothesis. In the last part, which is the main chapter of my master thesis, I am going to analyse the impact of FDI on Slovenian economic growth by using the SPSS program. I will focus on the changes in inward total FDI and FDI in primary, secondary, and tertiary sectors and analyse the impact of FDI on Slovenian economic growth in each sector. At the last part of my master thesis, I am going to present the results and interpret it.

## **1** FOREIGN DIRECT INVESTMENT

According to Moosa (2002), foreign direct investment is the investment that was done by a foreigner to another country, by acquiring ownership of assets in another country and controls all activities of the firm in another country. The meaning of "control" in his definition represents the power of the investor in the decision-making process in the company and the ability of the investor to be involved in management strategy and policies. It is uncommon that institutions differently define FDI. OECD (2021a) defines FDI as "a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy", by focusing on ownership power. On the other hand, there is UNCTAD (2007) definition, that defines FDI "as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)". From both definitions can be seen the main components of FDI are "control" and "lasting interest" that clearly distinguishes FDI from the investment portfolio. Controlling interest is usually determined by the ownership of a minimum of 10% of shares. If a foreign investor holds at least 10% of a company's shares, that is an example of FDI. However, in practice, 10% shareholding does not necessarily determine the controlling interest. Based on Jones & Wren (2006), there are some exceptions when 10% is not enough to control the firm. Also, there is a UK example that used 20% instead of 10% minimum level of equity capital until 1999. Therefore, it can be said that the threshold of 10% does not always determine the control of equity.

To define the FDI in more details, it is important to understand its characteristics. Therefore, in the following chapter different types of FDI will be presented.

#### 1.1 Types of FDI

According to Caves (1971), from an investor perspective, there are 3 types of FDI: horizontal, vertical, and conglomerate. The horizontal FDI is characterized as producing the

same or similar goods abroad as in the home country, for geographical expansion of the business operation. The horizontal FDI is most effectively used if a company has a patent or a unique product, that cannot be found in a host country or is different from other products in the host market. The vertical FDI can be backward and forward. Backward vertical FDI is a production of raw materials abroad that are used for the main product. As an example, it can be a chocolate producer in Belgium that invests in cocoa beans manufacturing company in Brazil and controls that company. Forward vertical FDI is investing in a foreign company that is future along the supply chain. The third type is conglomerate FDI, which includes the combination of both previous types, horizontal FDI and vertical FDI.

From the perspective of the host country Moosa (2002) categorized FDI into three groups: import-substituting FDI, export-increasing FDI and government-initiated FDI. The importsubstituting FDI is when an investing country produces the goods in the host country, that were previously imported from the investing country. As a result, the export of the foreign country and import of the host country decreases. It is also important to add that the main determinations of import-substituting FDI are the size of the host market, transportation costs and trade barriers in the host market. The second type is export-increasing FDI, which is when a foreign company seeks raw sources, materials or intermediate goods abroad. As a result, this type of FDI increases the export of raw materials in the host country. The third type is the government initiated FDI. It is when a government stimulates and offers opportunities for foreign investors to eliminate a balance of payments deficit.

Also, Chen & Ku (2000) classified FDI into defensive and expansionary types. The expansionary FDI seeks to develop company-specific advantages in the host country. In other words, to increase its sales. The defensive FDI focuses on searching for cheap labour, which creates a cost advantage for the foreign investing company.

### **1.2** Multinational corporations

Most FDIs are executed by multinational corporations. There are many examples of multinational corporations, such as McDonald's, Toyota, Apple, IBM etc. However, there is no agreed definition of multinational corporations (Jones & Wren, 2006).

Based on Gooderham, Grogaard & Nordhaug (2013), there are two types of definitions of the multinational corporation (MNC). The first one is a narrow definition that points out ownership and day to day control. The second definition has a broader meaning that moves beyond the criteria of ownership and control. The most used definition of MNC is created by Bartlett & Ghoshal (1989), which includes two qualifications. The first qualification stands that a firm is MNC if it has substantial direct investment abroad. The second qualification determines that the company takes an active part in managing these foreign assets that involve the production of goods or services. However, the term active management is not defined.

OECD (2018) defines multinational corporations (or multinational enterprises) as the companies that establish subsidiaries or branches abroad. Multinational corporations play a significant role in a global economy. Mainly because of their big size and their important activities in the global value chain. However, MNCs are important for the global value chain, they can be also seen as a solution to avoid paying taxes. The investigation by Palansky & Jansky (2019) estimated that around \$420 billion of profits was shifted out from 79 countries by multinational corporations to avoid taxes. As a result, there was a \$125 billion lose of tax revenues in these countries. Usually, because of loss in tax revenue, the state services are underfunded and need to be funded by others, that are usually lower-income taxpayers. In the end, there is an increase in inequality at national and global levels. In the investigation (Palansky & Jansky, 2019) the analysts used the data on FDI inflows, which shows the connection between MNC and FDI. Many authors view FDI and MNC as the same thing (Jones & Wren, 2006). The MNC and FDI are very connected, in the following chapters, I am going to explain the connection and details of both concepts.

Based on previous definitions, MNCs can be distinguished between terms international, multinational, and transnational. According to Moosa (2002), the international term refers to the companies that have a cross-border activity of exporting and importing. These types of companies produce goods in the home country and export them to other countries. When international activity increases and the company has a big number of customers abroad, then the company usually thinks about expanding its business operation to the foreign market. By investing in fixed assets abroad, the company becomes multinational. The next term is transnational. Transnational companies are more complex organizations, that operate in more than one foreign country and have FDI in all these foreign countries. The specific of this type of company that the difference between home and host countries is erased. It is also important to add, that besides multinational, international and transnational companies there is another type of MNCs that is global. A global company has the same characteristics as a multinational except it has one company culture and does not adapt the product to local preferences. Where multinational companies adapt operations and products to the local markets.

Based on previous information can be seen that multinational, transnational and global companies are closely connected to FDI since the mentioned companies invest in assets abroad and have control over foreign headquarters.

#### 1.3 Entry model

FDI is one of the entry methods that companies use to enter a foreign market. In theory, there is a certain sequence of how a domestic company becomes a multinational corporation, which is according to Gooderham, Grogaard & Nordhaug (2013) called the internationalization process.

Based on Moosa (2002) there are four steps of internationalization. In the first step, a company exports the products that were produced in the domestic country to a foreign market. In the second step, the company use a licence given to a foreign company for production, to eliminate the production costs. In the third step, the company establishes the subsidiary in the most promising market, where is a high demand for the product. By establishing the subsidiary in the foreign market, the company increases its market share and opportunities for market growth and increases revenue. The last step is establishing its manufacturing abroad, where the labour and production costs are low. It eliminates the transaction and transportation costs, decreases the production costs because of economies of scale and increases profitability. Important to add, that in practice, the sequence of the steps can be also different. It is not necessarily that a company goes step by step, it also happens when a company jumps from step one to step three. Steps three and four involve FDI. FDI has three forms of entering a foreign market, that are greenfield investment, mergers and acquisitions (M&A) and joint ventures. According to Zeqiri & Bajrami (2016), greenfield investment represents an entry model, when a company establishes its production and distribution facilities in a foreign market. Host countries are more interested in this type of entry mode because greenfield investment creates new jobs, transfers technology and knowledge. Also, Meyer & Estrin (1999) added a similar FDI form, so-called brownfield investment. A brownfield investment occurs when the investor company acquires the foreign company in the host country but after the acquisition replaces all production facilities, production line and labour. There are two main reasons why MNCs use brownfield investment: because of the poor quality of the local production inputs and the need for specific local resources for internal growth of the MNC.

The second form of FDI is cross-border merger and acquisition or shortly M&A. This form occurs when a company acquires or merges with the established firm in the host country. M&A is an entry model that focuses on the external growth of the MNC, where the greenfield investment focuses more on internal organization growth. There are also differences between greenfield and M&A in terms of implementation. The MNCs that that use acquisition as an entry model usually overpay for assets of the acquired firm. In greenfield investment, MNCs use their assets. However, it does not always stay that M&A is a more expensive entry model than greenfield. It depends on MNC's capacity and resources. Another difference from greenfield investment is that the investor company can quickly access the host market. However, cross-border acquisition is a politically sensitive issue for the host countries. M&A does not create new jobs, instead, it transfers the ownership. Host countries prefer to have control under domestic companies, because of M&A they lose control under the companies that were acquired by foreigners. In other words, M&A can be harmful to the host countries (Wang, 2009).

However, there are also cases of M&A benefits. According to Polyarus, Severgina & Borzenkova (2013) cross-border acquisitions also produce synergetic gains. The synergetic

gain represents the situation when the combined firm has a higher value than stand-alone individual firms. Which represents the benefit not just for foreign shareholders but also for domestic ones. Moreover, it is also argued, that the negative effects of M&A in the host countries take place in the short term. In the long term, M&A are beneficial for the host countries.

The third form of FDI is joint ventures, where two or more foreign companies own a company in another country. It is also possible that one of the companies in a joint venture is local. If we speak about the combination of the local and foreign company, it can usually be seen that foreign company provides its technical knowledge and ability to raise finance. On the other hand, there is a local company that provides input in the form of local knowledge of bureaucracy laws and country specifics. There are nine factors that explain the formation of joint ventures. They are the following: economies of scale, economies of scope, market size, cultural difference, the pace of technological change, interest rate, missing patent right, protection of independence and technological uncertainty (Buckley & Casson, 1996). Gooderham, Grogaard & Nordhaug (2013) mentioned that there is also an Uppsala theory that explains the process of internationalization in a similar way but also adding that, companies usually enter foreign markets that are culturally similar markets to the domestic country. Usually, these are neighbouring countries. Therefore, based on Uppsala most MNCs are regional rather than global.

#### 1.4 History of FDI

Based on Jones (1993), up to the First World War, most international investments were portfolio investments. Also, the article by Godley (1999), where he analysed the industrial sector in Britain in the nineteenth century, showed that the biggest size of FDI was in the industrial goods sector. Important to say that the UK held 40% stock of world FDI, while the USA held 28%, the rest was in Europe.

During the First and Second World Wars, the increase of FDI was halted. Moreover, because of the First World War, many European MNCs were forced to sell their pre-war investments. Also, in the late 1930s, international investments decreased because of the Great Depression in the late 1920s and the rise of inflation in European counties in the 1930s. Until the beginning of the Second World War, the UK was the leading country in terms of the number of stocks of FDI in the world. However, after the Second World War, the leading country with the highest number of FDI stocks in the world was the USA. With the growth of FDI, the size of US firms increased and as a result, the US companies started to become dominant in industries. European firms did not have opportunities to invest because of the poor financial post-war situation. However, due to FDI from the US, many European countries got financial support and gained the latest technologies. Also, FDI eliminated the dependence of European countries on the US government aid. The US MNCs mostly invested in the UK, because of the common language and close historical links. At the end

of the 1950s, the Common Market was established in Europe. It allowed the US companies to gain higher profits in the European market, as a result, the US FDI shifted from the UK to Continental Europe (Jones & Wren, 2006).

When the financial situation in Europe became stable, the outward FDI from Europe had also increased. The US was the main location where the European companies mostly invested. Firstly, the US by that time was the leading technology country. Secondly, the US market was very big. Thirdly, the US had the highest level of consumer spending. The growth of FDI in Europe had increased after the euro-currency establishment. However, the US was still in the first place in terms of FDI (Jones & Wren, 2006).

In the 1990s the FDI increased in the form of M&A. In 1997 and 1998 many host countries followed the trend of regulation liberalization and changing the policies avoiding double taxation. In general, the governments improved the policies to attract FDI (Jones & Wren, 2006).

According to UNCTAD (2020), there were three periods of decline of FDI during 2005-2019. The full movement of FDI inflows during 2005-2019 is presented in Figure 1. The first decline was during 2007-2009, the second during 2011-2014 and the third during 2016-2018.





#### Source: UNCTAD (2020).

In 2019 we experienced an increase in FDI. The largest recipients of FDI were the USA, in the second place, there is China and in the third place there is Singapore. The largest foreign direct investors were Japan, the USA, and the Netherlands. In general, in 2019 the FDI increased by 3%. However, the level of FDI remained below the level of 2017. Developed economies received 800 billion US \$ of FDI, which is a little bit less than they invested

which is around 950 billion US \$. Developing countries received 685 billion US \$ that is twice as much FDI as they invested (373 billion US \$).

### 1.5 FDI current trends

According to UNCTAD (2021a), the Covid-19 pandemic situation affected the global FDI. In 2020 global FDI fell by 42% from 1.5 trillion US \$ to 859 billion US. It is the lowest level since 1990. Even during the global financial crisis, the FDI level was higher than in 2020 by 30%. UNCTAD experts forecast a drop of global FDI in 2021 by 5-10%.

The FDI in developed countries were affected the most by the Covid-19 pandemic situation. The FDI inflows dropped by 69% in these countries. One of the most affected areas was North America, where FDI fell by 46%, where the M&A declined by 43% and greenfield investments decreased by 29%. In Europe, FDI fell by two-thirds, in the United Kingdom the FDI level dropped to zero. Also, Australia had an increase in FDI by 46%. On the other hand, there was Sweden with an increase in FDI from 12 billion US \$ to 29 billion US \$. Also, FDI increased by 52% in Spain mostly because of the high number of acquisitions in 2020. FDI in Israel increased by 8 billion US \$ and amounted to 26 billion US \$. In Japan, FDI increased by 2 billion US \$ (UNCTAD, 2021a).

In developing economies, the level of FDI declined only by 12%. As a result, the share of FDI in developing economies became 72%, which was the highest share on record. The most affected region in the developing economies was Latin America and the Caribbean, where the FDI flows declined by 37%. In second place was Africa, where the FDI flows fell by 18%. The least affected region in the developing economies was Asia, which had a 4% of the decline in FDI flows. Important to say that China was the largest FDI recipient in 2020. In 2020 in China the largest FDI was in high-tech, IT and pharmaceutical industries (UNCTAD, 2021). The forecasts of the UNCTAD experts for this year remain the same. Most likely the level of global FDI in 2021 will be weak (UNCTAD, 2021b).

In general, based on UNCTAD (2021b), most investors including foreign investors focused on the industry in 2020. Also, the Covid-19 pandemic situation showed to MNCs the problems in the supply chain. Therefore, many foreign companies spend more money on improving the logistics and the supply chain system.

The pandemic situation also had an impact on types of FDI and sectors. Firstly, the number and volume of greenfield investment projects decreased by 29% and 33% respectively, which is the highest decreased that was recorded. The greenfield investments projects halved and amounted to 11 billion US \$, which was less than 2% of global FDI. The manufacturing sector was affected the most by the pandemic situation in terms of the number of greenfield investment projects. In the manufacturing sector, greenfield investment declined by 41%. Also, in the automotive and chemical industries the number of new projects halted. The only

increase of greenfield investment projects can be noticed in the ICT industry, where the level of volume of new foreign investments increased by more than 22% (UNCTAD, 2021b).

Overall, in 2020 the level of M&A declined by 6% compared to 2019. However, the value of M&A in food, beverages and tobacco increased by 81 billion US \$. The highest value of M&A was in the health and digital sector. In the primary sector the level of M&A dropped by 31% (UNCTAD, 2021b).

## 2 THEORIES OF FOREIGN DIRECT INVESTMENT

The interest in the causes and consequences of FDI drove the creation of many theories. The theories explain the MNCs' motivation for using FDI and describe how MNCs choose the host countries to allocate their business activities. There are two main groups of FDI theories: theories assuming perfect markets and theories of imperfect markets (Moosa, 2002).

## 2.1 Theories assuming perfect markets

According to Moosa (2002), three hypotheses fall under the group of theories assuming a perfect markets group. The first theory is the differential rates of return hypothesis. The second hypothesis is called portfolio diversification. The third is the output and market size hypotheses.

## 2.1.1 The Differential Rates of Return Hypothesis

The differential rate of return hypothesis came from the traditional investment theory, which assumes that the goal of a company is profit maximization by equating the expected marginal return with the marginal cost of capital. The hypothesis assumes that the highest return-seeking process is the main cause of the FDI. Specifically, FDI is directed to the capital scarce countries rather than to the counties that are capital abundant. According to the hypothesis, firms by investing this way can achieve a higher rate of return. As far as developed countries are capital abundant and less developed countries to less developed. However, there are some limitations to the theory. Firstly, the hypothesis does not take into consideration the risk and making the risk of return is the only variable that determines the decision (Mugendi, Gachanja, Nganga & Muchai, 2015).

Secondly, the differential rate of return hypothesis does not explain why companies use FDI rather than portfolio investment. Thirdly, in practice, based on UNCTAD (2020) statistics, FDI inflows to developed countries are higher than to less developed countries.

#### 2.1.2 The Portfolio Diversification Hypothesis

The portfolio diversification hypothesis is similar to the differential rates of return hypothesis but unlike the previous hypothesis, it considers the risk. The hypothesis came from the portfolio diversification theory that Markowitz (1952) introduced. The hypothesis explains that a company investing capital in many countries reduces the total risk of the portfolio. The same as the differential rate of return hypothesis the portfolio diversification hypothesis does not explain why companies use the FDI. Also, the hypothesis focusing on the rate of return and risk cannot explain why some industries are more FDI attractive than others (Agarwal, 1980).

#### 2.1.3 Output and market Size hypotheses

Based on Agarwal (1980), both hypotheses have the same explanation of FDI flows, the only difference is that the output hypothesis is used on a micro level, the market size hypothesis is used at a macro level. Based on the hypothesis on the micro level, a firm's FDI to a host country increasing when the level of output (sales) in the host country increasing. The market size hypothesis considers that the level of FDI depends on the size of the market, which is measured by GDP or GNP. When the size of the host market has grown to the level that ensures the economies of scale, the country becomes attractive for FDI inflows.

Many empirical studies for testing the market size hypothesis use GDP as a measure of market size and analyse the relationship between FDI and GDP. Most of them find a positive correlation between GDP and FDI, which proves the market size hypothesis. However, Agarwal (1980) notifies about the possible mistakes in interpreting the meaning of the relationship between GDP and FDI. Firstly, the relationship between output and foreign direct investment assumes of neoclassical domestic investment theories, that are in real life not true. Secondly, Agarwal argues that the high correlation between GDP and FDI does not show the direction and causality, it is still unclear what is the causal element in the relationship. Thirdly, based on neoclassical domestic investment theories, investment is defined as expenditure of fixed assets. However, the statistics of FDI does not distinguish between investment in fixed assets and other forms of investment such as financial assets and inventory. Also, it is known that statistics on output (GDP) is not accurate because of measurement errors (Agarwal, 1980).

#### 2.2 Theories assuming imperfect markets

According to Moosa (2002), there are three hypotheses that are included in the theory that takes into consideration the market imperfections. In this section, there are six hypotheses: industrial organization hypothesis, internalization hypothesis, location hypothesis, eclectic theory, product life cycle hypothesis and oligopolistic reactions hypothesis. The theories assuming imperfect markets take into consideration the elements with which a company may

face in real markets such as monopoly, oligopoly barriers to entry, imperfect information etc.

## 2.2.1 Industrial organization hypothesis

The industrial organization hypothesis was developed by Hymer (1960). Later his theory was supported by Kindleberger (1969). The hypothesis explains that a foreign company has disadvantages in the local market because of the local competition. Therefore, based on the industrial organization hypothesis the foreign subsidiary needs to have firm-specific advantages while entering a foreign market. The foreign company in the host market should earn more than local competitors to survive. There are many barriers for MNCs to enter the foreign market. Firstly, it is the cultural and language differences between the domestic and host countries. The culture determines the local customers' preferences and tastes. Therefore, it is necessary to analyse the host market before entering and adapt the product to the local taste. Secondly, there are differences in the legal system, that are crucial for business operating in a host country (Nayak & Choudhury, 2014).

To beat the competition in the host market Nayak & Choudhury (2014) argue that, the foreign subsidiary must use its firm-specific advantages such as brand name, advanced technology, patent, managerial skills, or other form-specific factors.

Agarwal (1980) explains that to avoid the difficulties in the host country, a firm could expand to the foreign market with licencing or export, or a company could sell managerial, technological, or marketing skills. These firm-specific qualities make it easy to expand the business. Kindleberger (1969) explained that a company would choose FDI instead of export in case the production costs at home would be higher than abroad.

In general, the industrial organization hypothesis explains that if a company has firm-specific advantages it chooses to invest in a foreign country because it minimizes the costs. Also, it is important to analyse the potential host market before entering. However, the industrial organization hypothesis does not explain why an MNC chooses to invest in market A instead of market B.

### 2.2.2 Internalization hypothesis

Buckley & Casson (2003) argued that the markets for intermediate products such as knowledge, labour, marketing, and managerial skills are imperfect. As a result, the connection of business tasks through these intermediate markets creates time delay and transaction costs. Therefore, the firms usually replace these markets and create their internal market that is under the firm's ownership and control. The internalization of markets leads to FDI, and the process is beneficial until marginal costs and marginal benefits are equal. Also, Moosa (2002) explained that firms integrate some activities by acquiring companies

that are along the supply chain. Because vertical/horizontal integration decreases the time lag, external transaction costs and eliminate the uncertainties. In other words, internalization theory explains when and why companies use FDI instead of exporting and licensing.

Sometimes it is claimed that the internalization hypothesis is the general theory of FDI since it explains the main idea of FDI. However, based on Rugman (1980) and Buckley (1988), there are two disadvantages of the international hypothesis. Firstly, the hypothesis is too general and there is no empirical evidence. Secondly, there are no options to test the hypothesis directly. On the other hand, they are evidence of a pattern of FDI that corresponds to the internationalization hypothesis.

#### 2.2.3 Location hypothesis

Based on Moosa (2002), the location hypothesis explains that FDI exists because of the international immobility of production factors such as labour, capital, and natural resources. Because of the international immobility of the production factors, there are location-related differences between countries. One of the forms of location-related differences is wage. The countries with low wages based on the location hypothesis are more attractive for FDI. For example, a company from a developed country would invest in India, because of the low wages and as a result low labour cost. However, low wages also mean low quality. Therefore, in banking and financial industries or R&D, the low wage will not be the main determinant for FDI. Moreover, the MNCs in banking and financial industries will not invest in countries with low wages.

The results of the empirical evidence on the hypothesis that low wages attract FDI are ambiguous. According to Moosa (2002), most researchers proved that cheap labour increases the FDI inflows. On the other hand, there is also evidence of no effect of low wages of FDI or even the reverse consequences.

Another important factor of the location hypothesis is natural resources. Moosa (2002), provided an example of a firm that builds a factory in the country with the biggest production of copper mining because it will eliminate the transportation costs and delivery delays. As a result, the firm would have a location advantage and improve the efficiency of production.

Capital is another production factor that can be used in the location hypothesis. According to Moosa (2002), the FDI will flow to the countries that have low costs of capital. One of the examples that he mentioned was the research by Love & Lage-Hidalgo (2000), who analysed the FDI from the US to Mexico. They proved that the difference between the US and Mexico costs of capital was the determinant of FDI flows from the USA to Mexico.

#### 2.2.4 The eclectic theory

The eclectic theory was developed by Dunning (1988). Dunning (1988) combined the industrial organization hypothesis, internalization hypothesis and location hypothesis to answer why a firm decides to expand its business operation through FDI and not through other channels such as export, portfolio investment or licensing its technology to other firms abroad that take care of production.

The eclectic theory explains that three conditions need to be satisfied if a firm wants to use FDI for the expansion abroad. Firstly, the firms should have a firm-specific advantage in form of ownership of intangible assets such as the patent on a particular technology, access to raw materials, monopoly power or access to cheap finance. That is explained in the industrial organization hypothesis. Second, using the ownership advantage must be more beneficial than selling or licensing the intangible assets. This condition was taken from the internalization hypothesis. Thirdly, using the ownership advantage in combination with other factors of production inputs located in a foreign country should be more profitable than exporting the goods. The location hypothesis explained this condition in more details (Dunning, 1988).

Based on mentioned conditions, Moosa (2002) presented what eclectic theory explains in practice. He supposed that there is a demand for a certain product, where a domestic firm has an ownership advantage. What the firm decides about the expansion depends on internalization and location advantages. There are the following possibilities:

- 1. If there are no internalization gains, then the firm will license its ownership advantage to a foreign company especially if location factors are beneficial abroad.
- 2. If there are internalization gains but location factors are favoured in the home country, then the firm will export the goods abroad.
- 3. If there are international gains and location factors are preferred abroad, then the firm will use FDI to expand its operation to a foreign country.

In other words, the eclectic theory suggests that FDI can be explained based on these conditions. Also, it claims that internalization, location, and ownership are the main advantages that vary and depend on time and country. Therefore, the country characteristic is an important determinant of FDI.

### 2.2.5 Product Life Cycle hypothesis

Vernon (1966) developed the product life cycle hypothesis that explained the expansion of MNCs after WWII. The hypothesis determines the stages or so-called cycles through which products go. It includes four cycles: introduction, spread, maturity and senescence. The product life cycle hypothesis also helps in the interpretation of the FDI. Based on it, the FDI

appears in a particular stage of the product life cycle. It is important to add that the product life cycle hypothesis considers only innovative products. There are three stages:

- In the beginning, the production process takes place in the home country. Since the product is innovative the product demand is inelastic that allows the company to put a high price. In the first stage, the product is also improved based on the customers' feedback.
- The second stage combines two cycles of export (spread) and maturity. The company starts to expand its business abroad. Usually, the developed countries with the next high-income level are chosen. As a result, demand increases. However, the competition increases too. Therefore, the company enters the foreign market to meet local demand. At this stage, the home country becomes an exporter and the foreign countries become importers.
- In the third stage, the product and production processes are standardized. Also, the competition increases that leads to a price decrease. Low price forces the company to invest in developing countries for production costs advantage. As a result, the home country becomes an importer and the foreign countries become exporters.

In general, FDI is present in the two last stages. The first time it appears when the company wants to increase the demand and market share and enters developed countries. Next, the FDI appears when the company needs to reduce production costs and enters developing countries.

### 2.2.6 Oligopolistic Reactions Hypothesis

Knickerbocker (1973) developed the oligopolistic reactions hypothesis by analysing the manufacturing American MNCs that expanded their business in foreign markets. He found that the American firms entered foreign markets almost at the same time. That meant that oligopolistic firms try to counteract the advantage, that the first firm gets from its FDI. Therefore, the oligopolistic firms follow the first firms by using their own FDI.

In general, FDI theories explain the main drivers that force MNCs to use FDI to enter the new market. Also, many studies test the theories and the results for each FDI theory were ambiguous, which proves that FDI has different effects on MNCs and the host country economy. In the next chapter, I am going to present the effects of FDI.

# 3 MACROECONOMIC EFFECTS OF FOREIGN DIRECT INVESTMENT IN HOST COUNTIRES

From the first sign, it seems that FDI has a positive effect on the home and host country economy. The main goal of any MNC is to maximize profit worldwide. Therefore, the companies usually invest in high return countries to increase the revenue and buy inputs

where the prices are low. However, many studies also showed negative effects of FDI on the macro level.

### 3.1 The effect of FDI on Balance of Payments

Based on Kurtishi-Kastrati (2013), FDI has a positive effect on the balance of payment of a host country. Firstly, FDI increases the capital inflows to a host country, which is the onetime effect only. It helps to eliminate the saving gap, that is the difference between investment and domestic savings. Secondly, if MNC through the FDI substitutes the imports, it improves the current account in the balance of payment of the host country. Thirdly, MNCs that export the products to other country increase the export of the host country that has a positive effect on the balance of payment. However, according to Moosa (2002), the effect of FDI on the balance of payment of the host country depends on many factors. To analyse the result of FDI on the balance of payment it is important to analyse the inflows and outflows that are caused by FDI. On one hand, FDI increases export of goods, inflows of capital in the form of equity capital and loans from abroad. On the other hand, FDI increases the outflows in the balance of payment because of the imports of raw material and intermediate goods and profit repatriation. Theoretically, if FDI stimulates more inflows than outflows, the FDI effect on the balance of payment is positive. The empirical evidence showed that the balance of payment effect is more beneficial for developing countries than for developed. However, the disadvantage of the balance of payment effect is that it does not show the impact of FDI on domestic sales and usage of local resources. Balance of payment focuses more on export and import effects. Therefore, it is important to mention the FDI effect on trade flows.

#### 3.2 The effect of FDI on Employment

Another macroeconomic element that can be analysed is employment. Based on Keynes (1997) there is a direct relationship between investment and employment. However, even today the relationship between FDI and employment is a debatable topic. Baldwin (1995) argued that the effect of FDI on employment in host countries depends on three key criteria. Firstly, the effect on employment depends on to what extent the FDI substitutes the domestic investment. Secondly, FDI has a positive effect on employment depends on whether FDI involves the building of new factories or the acquisition of the existing ones. If FDI involves the construction of new factories, then it will have a positive effect on employment. Also, technology plays a crucial role in the labour market of the host country. FDI also helps to transfer technology, which has a positive effect on the productivity and economy of a host country. Technology stimulates the economic development of a country. MNCs also transfer knowledge and technology. It is important specifically for developing countries (Kurtishi-Kastrati, 2013).

#### 3.3 FDI and Trade Flows

Moosa (2002) argues that the effect of FDI on trade flows depends on the type of FDI – vertical or horizontal. In horizontal FDI, MNCs produce the same goods as in the domestic country, which eliminates the import in the host country. In this case, FDI substituted the trade. In vertical FDI, MNCs separate the production geographically to eliminate the costs of production. On one hand, the MNCs increase the export of final goods in the host country. On the other hand, MNCs also increase the import of raw materials or intermediate goods in the host country. In this case, the FDI and trade are complements and the effect of FDI on trade will depend on whether the created export greater than created import.

#### 3.4 FDI and Technology

Technology is one of the main sources of economic development in any country. Therefore, the transfer of technology is an important process for the host country's economy. FDI is one of the most efficient forms of transfer technology to the host country. Firstly, MNCs transfer their technology in tangible form and shares some innovation with the affiliated subsidiary. Secondly, the technology transfer occurs in form of intangible assets such as management skills and organizational skills (Stephan, 2006).

Also, Johnson (1970) describes the importance of FDI in transfer knowledge in the case of innovative products. He argues, that when new technology creates special know-how for its owner, that can be a competitive advantage that can create the monopoly power. The owner of the technology has some options. The owner can sell the technology, licensing it or use it in the production process. All the options can be done through the FDI process. In other words, FDI can enable the transfer of technology to host country firms.

Wang & Blomström (1992) explain the positive effect of FDI on technology through the competition. The idea is that when new foreign companies with more advanced technology enter the new market, the local companies face competition that forces them to use new technology and create more innovative products.

### 3.5 FDI and inter-industry linkages

Wang (2010) focused on the relationship between FDI and productivity on the industrial level. He argues that foreign companies are more productive than domestic companies due to superior technology and better management skills, which has a positive effect on knowledge transfer for domestic companies. He assumes that domestic-owned companies can get access to the knowledge from the foreign-affiliated companies through the imitation of foreign technology and workers who can get experience in foreign-owned companies and transfer the knowledge to the domestic-owned companies. In other words, when a foreign company enters the new market, it brings the knowledge not just to the affiliated subsidiary

but also to other domestic companies. On the other hand, Wang (2010) also adds that foreign companies have a competitive advantage over domestic companies that reduces the market share of local companies. It can lead to a decrease in productivity of the domestic companies. He argues, that FDI can influence the economy through inter-industry linkages. For example, a foreign company that operates in a new market decides to work with local suppliers. However, the company has high standards for the inputs of production. It can motivate and help the domestic suppliers, to increase their standards and quality for the production. This is an example of backward linkages. The forward linkages can be described similarly in distribution. A foreign company has high requirements for the distribution system, which gives an opportunity for the local distributors to improve their quality of operation.

#### **3.6** The effect of FDI on market structure

As was mentioned before, FDI is one of the forms to transfer technology and knowledge. Caves (1971) uses this argument for proving that foreign subsidiaries because of the technology transfer become more efficient than local companies. As a result, foreign subsidiaries that enter the local market create more competition than the new domestic firms. However, he also adds that the efficiency of the foreign subsidiary depends on its actual performance.

Also, Kindleberge (1969) argues that FDI boosts the competition and eliminates monopoly or oligopoly in the host country. He explains that the MNCs that enter the local market are usually strong subsidiaries because they have support from the parent companies. Therefore, when a strong foreign subsidiary enters the new market, it can perform better than the local firms thereby increase competition in the local market.

On the other hand, if in the local market most of the companies are small and weak, the strong foreign firm by entering in such market can take advantage and dominate over the local firms, that can rise oligopoly or monopoly in the host country (Lall & Streeten, 1977).

#### 3.7 The effect of FDI on environment

From first sight, it is hard to find any connection between FDI and the environment. However, there is a pollution haven hypothesis that argues that MNCs locate the production facilities in countries that have low costs of production, raw materials, low prices of fossil fuels and low environmental standards. The allocation of production facilities in such countries can be not just because of the costs reduction but also when the domestic country introduces the environmental policies that unable the production process. Instead of changing the production process that will be adapted to the environmental policies some companies simply transfer the manufacturing to another country. Therefore, MNCs can damage the host country environment by allocating its production facilities that can be a source of emissions. As a result, FDI can have a negative effect on the host country environment. However, the negative consequences of FDI can be eliminated by increasing the environmental standards through policies that the host country can introduce or change (Garsous & Koźluk, 2017).

#### 3.8 The effect of FDI on economic growth

In theory, FDI has a positive impact on economic growth through capital accumulation and technological development in the host country. However, different empirical evidence shows that the FDI effect on the economic growth of the host countries is ambiguous. On one hand, the evidence presented by Borensztein, De Gregorio & Lee (1998) shows that FDI stimulates technological progress, which is the main factor of economic growth in the long term. However, the results of the test point out that for the positive effect of FDI on technological progress the host country must have a sufficient level of human capital. As a result, productivity will be increased which would have a positive effect on economic growth. Also, the empirical evidence presented by Nunnenkamp & Spatz (2003) proves the positive effect of FDI on economic growth in developing countries. On the other hand, Khaliq & Noy (2007) found a negative effect of FDI on economic growth on a sectoral level. They noticed that FDI has a negative effect on the mining sector in Indonesia. Also, the study of Susilo (2018) who investigated the FDI-EG relationship in the USA shows that FDI has different effects depending on the sectors.

There are many reasons for the ambiguous results of empirical studies on FDI-economic growth relationships. The tests were different firstly, in terms of selected countries (developed or developing host country). Secondly, researchers used different statistical techniques. Thirdly, many studies prove the different effects of FDI on the economic growth of a particular host country depending on sectors. Also, the time period can influence the results of FDI-EG relationships.

Based on previous findings, the effect of FDI on economic growth depends on the host country's conditions. Also, the FDI can have positive effects in some sectors and at the same time negative effects in other sectors.

Moreover, Almfraji & Almsafir (2014) analysed the main research about the FDI and EG relationship. The research that was analysed by them were published during 1994-2012. The main findings were presented in the table that represented key information about each research analysis. The table was divided, the first part presented all the research evidence that proved positive and strong relation between FDI and EG. The second part presented only one research De Mello (1999) that proved a weak relation between FDI and EG in developed and developing countries. The third part provided the researchers that did not find any effect of FDI on EG. The last part showed two types of research that concluded the negative effect of FDI on EG.

In general, the Almfraji & Almsafir (2014) article showed diverse results about FDI and EG relationships. Also, the authors investigated the so-called influencing factors that impact FDI-EG relation. By examining the research on the influencing factors in the FDI-EG relation that were published during 1996-2011, they found many factors that had a positive influence on FDI-EG relation. First, it is the level of human capital in the host country. Secondly, to have the positive effect of FDI on economic growth, the host country has to be economically stable. Thirdly, the host country should have an open trade regime (exportoriented). Also, the good quality of the political environment plays an important role in FDI - EG relations.

There are two factors that have a negative impact on FDI-EG relations. Firstly, it is the dependence on foreign investment. If the host country has a high dependence on foreign capital, it leads to slower economic growth. In other words, initially, the FDI has a positive impact on economic growth, however, in the long term, the high dependence has a negative impact on economic growth. It was proved by two researchers, Kentor (1998), who analysed the impact of FDI on economic growth in 79 developed and developing countries during 1938-1990 by using the OLS regression method. The second research was by Kentor & Boswell (2003), who analysed the FDI - EG relation in 39 less developed countries during 1970-1995 by using OLS regressions as well. Secondly, Li & Liu (2005) found that a high technological gap between foreign and host countries has a negative impact on FDI - EG relations.

Some researchers focused not only on the general relationship between FDI and economic growth in host countries but also analysed the effect of FDI on the economic growth of each economic sector. Such analyses do not just provide the information about the impact of FDI - positive or negative impact - but also analyse the impact of FDI in more detail by determining in which sectors the impact of FDI is negative and in which it is positive. In this section, the key studies on FDI-EG relationships within economic sectors in a host country are presented.

The research made by Chakraborty & Nunnenkamp (2006) investigated the relationship between FDI and economic growth in all economic sectors in India for the period 1987-2000. The empirical analysis included two variables, which are output (annual growth rate of GDP) and the FDI stocks (the ratio final over the initial year of the respective period). Researchers decided to divide 15 industries into 3 main sectors to eliminate the number of explanatory variables. As a result, there were primary, secondary and tertiary sectors. The last part of the empirical analysis was the Granger causality test for each sector similarly as it was done in the previous step. The results were the following:

- Primary sector: the empirical analysis showed that there was no relationship between FDI stocks and output.
- Secondary sector: there was a bi-directional causal effect between FDI stocks and output in the long run. In the short run, FDI had a positive impact on output.

• Tertiary sector: the Granger causality test did not find a causal relationship between FDI stocks and output.

The empirical studies made by Miteski & Janevska Stefanova (2017), analysed the sectoral FDI on economic growth in 16 CESEE countries. For the empirical analysis, Miteski & Janevska Stefanova used the Cobb-Douglas production function. However, to avoid the variable bias, the researchers expand the model by including two control variables that were the domestic investment and the gross enrolment ratio in secondary education. Firstly, the researcher focused on the impact of total FDI inflows on economic growth by fixed effects panel estimation. The regression was run with Driscoll-Kraay that allowed to avoid the autocorrelated, cross-sectional errors and heteroskedasticity.

After adding the control variables in the regression there was a positive and significant effect of FDI on economic growth. In the next step, the researchers ran a test analysing to analyse the impact of FDI on economic growth for each sector. As a result, it was shown that the FDI inflows in the industry and service sectors had a significant positive effect on economic growth. In the construction sector, there was a nonsignificant positive effect of FDI on economic growth.

The research that was made by Alfaro (2003) analysed the impact of FDI on sectors (primary, services and manufacturing) in 47 different countries during 1980-1999. The researcher used a cross-section regression model. The dependent variable was a logarithm of the real GDP per capita at the beginning of the period. The independent variables were the initial GDP, FDI inflows for each sector (primary, manufacturing, service). The control variables were schooling, investment, inflation, government spending, private credit, institutional quality, and openness. FDI inflows by sector were represented as a percentage of GDP in the regression analysis. Also, the government expenditure as a percentage of GDP was used. In the first part of the research, Alfaro analysed the impact of total FDI on economic growth. The results showed that the FDI had a negative impact on the primary sector and a positive impact on the manufacturing sector. Furthermore, the impact of FDI on the services sector is positive.

On the other hand, the research from Awunyo-Vitor & Sackey (2018) shows that FDI has a positive effect on economic growth in the agricultural sector that is a part of the primary sector. The research was analysing the FDI effect on economic growth in Ghana specifically in the agricultural sector during 1975-2017. The research error correlation model (ECM) was used to analyse the relationship between the FDI in the agriculture sector and economic growth.

Also, another research that shows the positive effect of FDI on economic growth in the agricultural sector was made by Gachunga (2019). He also analysed the effect of FDI on economic growth in the agricultural, infrastructure and manufacturing sectors in Kenya during 2000-2017. The results of the multiple regression analysis showed a significant

positive effect of FDI in the infrastructure sector, nonsignificant positive effect in the manufacturing and agricultural sectors. The multiple linear regression was used in the research, where economic growth as measured by GDP and FDI was measured by FDI inflows. Also, the regression included gross fixed capital formation (as a percentage of GDP) and labour force as independent control variables.

Another sector-level analysis of the relationship between FDI and economic growth was made by Iram & Nishat (2009) who investigated the FDI-EG relationship at the sectoral level (manufacturing and service) in Pakistan during 1972-2008. The dependent variable in the research was GDP per capita. The independent variables were FDI in the manufacturing sector, FDI in the service sector, public sector investment and inflation rate. Also, the researcher included Dummy of privatisation. All the data was measured annually. At the beginning of the analysis the ADF and PP unit root tests. The results of the tests showed that variables had a different order of integration. In the next step, the ARDL model was applied to analyse the cointegration between the variables. The ARDL results showed that in the long run, FDI had a significant positive effect in both sectors. However, in the short run, FDI in both sectors did not significantly affect economic growth. Also, it was shown that FDI in the services sector.

The next research analysed the FDI-EG relationship in more detail. Susilo (2018) in his research analysed the impact of FDI on EG in 10 economic sectors (subsectors) in the USA during 2000-2011. The researcher used multiple linear regression analysis. The dependent variable was real GDP growth. The research included 10 independent variables, which were FDI inflows for each sector. The *t*-test showed the negative insignificant impact of FDI on economic growth in manufacturing, wholesale trade, retail trade and real estate trade sectors. The coefficient of determination showed that about 82% of economic growth could be explained by FDI in 10 sectors, where the rest was influenced by other variables that were not included in the analysis. In the next part of the research, Susilo analysed the impact of FDI on ECONOMIC growth in all 10 sectors. The results showed the following:

- A significant positive effect of FDI on economic growth in retail trade, manufacturing, wholesale trade, real estate, information, and other sectors.
- There was a significant and negative effect of FDI on economic growth in the insurance technological and professional scientific sectors.
- There was no impact of FDI on economic growth in the finance and banking sectors.

From the previous analysis of the empirical findings in the FDI-EG relationship can be seen that the results are ambiguous. Based on the empirical results we cannot say what is the relationship between FDI and economic growth in general. However, most of the research prove a positive effect of FDI on economic growth, the differences of the results are mostly

on sectoral level. It depends on country specifications and the sectors of observation. Therefore, in my master thesis, I am going to analyse the relationship between foreign direct investment and economic growth in Slovenia on a sectoral level. However, before it is important to an overview of FDI in Slovenia, which I am going to describe in the next section.

### 4 FOREIGN DIRECT INVESTMENT IN SLOVENIA

Slovenia is a small country with an area of 20,271 *km*2 and a population of 2,111,461 (SURS, 2021a). Slovenia is located at the crossroads of South-Central Europe, which plays an important role in the development of the Slovenian economy. Throughout history, Slovenia was involved in many international economic processes. One of them was in the Astro-Hungarian Empire times when the Slovenian region played an important transit role in trading between Vienna and Trieste. Transportation through the Slovenian region encouraged the construction of the Vienna - Trieste railway in 1857 that brought industrial development to the Slovenian region and was based on foreign capital. After WWI Slovenia became the most developed part of the Yugoslav monarchy. Also, after WWII Slovenia was the most developed region in the Socialist Federal Republic of Yugoslavia (Kušar, 2021).

Foreign direct investments were not possible in Slovenia when it was a part of Yugoslavia until 1967. In 1967 Yugoslavia was the first socialist country (excluding the Soviet Union) that introduced the FDI legislation that enabled the foreigners to invest money. However, the joint venture was the only option for FDI. In Yugoslavia the topic of FDI was debatable. People in Yugoslavia were sceptical about the FDI. Firstly, they were afraid to lose control of the domestic firms. In Socialist Yugoslavia, each company had a workers' council that had a management function of a company. By enabling the FDI the foreigners could overtake the function of management and the workers' council could lose control under the company (Sukijasović, 1970). Secondly, before the II World War Yugoslavia had some bad experiences with foreign capital. At That time foreign capital controlled more than 50% of the Yugoslavian economy. Also, despite the big level of foreign capital inflows the level of economic growth was small. As a result, Yugoslavia at that time was an undeveloped country. The reason for the small economic growth was that foreign investors did not reinvest profits enough to the local companies. Also, many foreign investors avoided paying taxes. Another reason was also a big level of corruption in Yugoslavia (Rojec, 1994). Thirdly, Yugoslavia also had a bad experience with FDI from the Soviet Union after the II World War. Where the goal was to increase the economic growth of both countries. However, the project was rejected by Yugoslavia, because the Yugoslavian government did not see any benefits for the domestic economy, it was most beneficial only for Soviet Union (Lamers, 1976).

Based on the sceptical views of FDI, joint ventures were the best option for the Yugoslavian FDI legislation. However, joint ventures in Yugoslavia had some specifics. Firstly, as usual,

joint ventures foreign investment did not enable foreigners to owe the property in Yugoslavia. The Yugoslavian form of joint venture did not provide any rights for investors any property rights in Yugoslavian companies. The foreign investors did not even have any ownership rights to the assets which they invested. They had only the guarantee that all the invested capital would be returned. Secondly, in the usual form of joint ventures, the function of control and management was determined by the share of total investments. Those investors who had a higher share had more power in a company. In Yugoslavian form, foreign investors did not have any power of control. However, they had a right to participate in a joint business body, that was established by Yugoslavian partners. The third specific of Yugoslavian joint ventures was that after the local company had received the foreign investments, the form of the company did not change. It is still considered a Yugoslavian (home) company (Rojec, 1994).

The new Yugoslavian FDI legislation was introduced in 1988, which allowed real equity joint ventures and enabled foreigners to owe companies. As a result, by the end of 1988, there were 28 joint ventures with 114.3 million US dollars of invested foreign capital in Slovenia. After the Republic of Slovenia became independent the amount of FDI inflows increased. However, the number of MNCs in Slovenia was relatively small compared to other post-Soviet bloc economies in Central and Eastern countries such as Slovakia, the Czech Republic and Hungary (Svetličič & Rojec, 1998).

Figure 2 presents the FDI net inflows as a percentage of GDP in Slovenia during 1994-2019. From Figure 2, can be seen that the average FDI inflow between 1995-2000 was less than 1% of GDP the major FDI inflow happened in 2002, two years before the EU accession (World Bank, 2021a). Svetličič & Rojec explained the major FDI inflow in 2002 because of Slovenian accession in 2004. Investors saw an opportunity to earn more money by investing in the non-EU country and get the benefits after the EU accession. They expected that after the EU accession, Slovenian economic growth will increase which would lead to an increase in their returns. However, after the EU accession in 2004, the FDI inflow decreased. In 2007 Slovenia had the second major FDI inflow of 1,106 million EUR. However, because of the financial crises, the FDI inflow declined in 2009 (Svetličič & Rojec, 1998). The lowest growth rate of FDI inflows was during 2009-2013 that represented 0.9%. It was the result, of negative reinvested earnings. In other words, foreign owners withdraw profits in form of dividends. However, in 2014 the FDI inflow increased by 10.3%, which was the highest growth rate during 1994-2019 (EIB, 2021). Another biggest inflow happened in 2015, the FDI inflows exceeded 1,500 million EUR, which was 4% of GDP (Bank of Slovenia, 2016).



Figure 2: FDI net inflows in Slovenia (% of GDP)



During 2014-2020 Slovenia received investments in the energy sector and rail infrastructure. Also, Slovenia received foreign investment for the regional centre of sewage treatment and waste. All the investment projects were under the Investment Plan for Europe Programme of the European Fund for Strategic Investments (EIB, 2021).

Based on the Bank of Slovenia report (2020), the stock of inward FDI in Slovenia was 16,000 million EUR that represents 33% of GDP at the end of 2019. In comparison with inward FDI in 2018, the stock of FDI increased by 700 million EUR or 4.9%. The increase was driven mostly by transactions in the form of equity and reinvested earnings which are in total 1,700 million EUR. The transactions in debt decreased the level of FDI by 600 million EUR, other changes were also negative and represented 300 million EUR. The level of inward FDI increased also because of acquisitions, where two manufacturing and two financial and insurance companies were bought by foreign companies.

Based on Jaklič, Koleša & Rojec (2017), foreign companies in Slovenia have better economic results than domestic companies. Bank of Slovenia (2020) report shows that in 2019 the companies with FDI earned the highest level of net profit, which represented 1,400 million EUR. The foreigners invested mostly in manufacturing (34.7%), financial and insurance (21.6%), and wholesale and retail trade and repair motor vehicles and motorcycles (17%) activities in 2019. However, the highest increase of FDI was in financial and insurance activities in comparison with FDI in 2018.

In the analyses of the biggest investor countries, the Bank of Slovenia (2020) included the ultimate investing countries that indirectly invested in Slovenia. Table 1 represents the

biggest investor countries in Slovenia in 2019. From Table 1, can be seen that most investors come from the EU countries. The biggest investor country that invests directly in is Austria that represents 24.7 % of all inward FDI. Investors from Austria mostly invest in manufacturing, wholesale and retail trade and repair of motor vehicles and motorcycles, and financial and insurance activities. The second biggest investor country is Luxembourg with 13% of all inward FDI. Most of the investments from Luxembourg were in financial and insurance, manufacturing, information, and communication activities. The third biggest investor is Switzerland that represented 11.4% of all inward FDI in Slovenia in 2019. The investors from Switzerland mostly invested in wholesale and retail trade and repair of motor vehicles and motorcycles, real estate, and financial and insurance activities. However, it is also important to mention the countries that invest a lot indirectly through other countries. For example, in Table 1 we can see the United States that invested 172.3 million EUR in Slovenia directly and 1,484.1 million via affiliates in Luxembourg. Also, Germany and the UK invested more heavily indirectly through other countries. If we look more in detail the countries that invest indirectly, can be seen that Germany is on the first place with 2,276 million EUR. In second place is Austria with 2,275.4 million EUR of FDI inflows. In third place is Italy with 1,505 million EUR. The biggest non-EU countries that invest in Slovenia are Switzerland, the UK and Russia.

Countries	Immediate partner country	Ultimate investing country		
Countries	(EUR million)	(EUR million)		
Germany	1,354.8	2,276.0		
Austria	3,961.4	2,275.4		
Italy	1,263.0	1,505.0		
United States	172.3	1,484.1		
Switzerland	1,825.6	1,340.4		
United Kingdom	438.4	811.1		
Croatia	1,041.1	784.3		
Netherlands	1,242.5	552.3		
Hungary	422.3	445.1		
Luxembourg	2,084.9	433.3		
<b>Russian Federation</b>	114.3	414.5		
Slovenia	-	390.3		
Japan	38.5	361.3		
France	170.7	336.0		
China	4.3	325.4		
Cyprus	408.6	232.9		
Mexico	0.0	206.5		
Czech Republic	302.6	205.8		
Unallocated	45.5	70.5		
Other	1,116.8	1,557.6		
Total	16,007.8	16,007.8		

Table 1: FDI in Slovenia – immediate and ultimate country presentation (2019)

Source: Bank of Slovenia (2020).

Based on the Bank of Slovenia report (2020), the firms with FDI represent 1.8% of the population of Slovenian firms, which is a small amount. However, those companies are important for the Slovenian economy because they hold 24% of total capital, 25.8% of total assets and 23.8% of employees in the entire corporate sector. In total the firms with FDI generated 31 billion EUR of revenues and 1.4 billion EUR profit in 2019. In 2019 companies with FDI had above-average wages for their employees. The average annual gross wage per employee was 22,539 EUR in firms with FDI, which is higher than the wage in the domestic companies by 9.5%. Also, the ROE of the firms with FDI was higher than in domestic firms. However, companies with FDI exported less than companies without FDI.

Figure 3 shows the distribution of inward FDI by statistical regions. The highest inward stock value share of FDI is concentrated in Central Slovenia (Osrednjeslovenska), which is 56.6% of the total inward stock of FDI at the end of 2019. In second place is the Drava (Podravska) region that accounts for 10.6% of the total stock of inward FDI. In third place is Coastal-Karst (Obalno-Kraška) region with 5.8%. Upper-Carniola (Gorenjska) and Savinja (Savinska) regions account for 5.5% each, other eight regions together represent 15.9% of inward FDI.

#### Figure 3: Inward Foreign Direct Investment in Slovenia by region, 31 December 2019



Source: Bank of Slovenia (2020).

In general, Slovenia is attractive for foreign investment for many reasons. Firstly, Slovenia has an important strategic location by the Adriatic Sea. Secondly, Slovenia has a well-developed infrastructure and highly qualified workforce. Also, according to the World Bank

(2020), Slovenia is ranked 37<sup>th</sup> out of 190 in doing business. It shows that the conditions for doing business in Slovenia are good. However, analysing the full report, which is presented in Figure 4, can be also seen some difficulties that businesspeople face while doing business in Slovenia. The highest difficulties are construction permits, getting credits and enforcing contracts, which measures the time and efficiency of operation of the court system. On the other hand, Slovenia is number one in trading across borders, that measures costs and time associated with the process of transportation of goods across borders. Also, Slovenia is in 8<sup>th</sup> place in resolving insolvency, which means that the process of resolving bankruptcy is cheap and fast. Moreover, the report shows that Slovenia has a high index in protecting minority investors.



#### Figure 4: Ease of doing business rankings: Slovenia, 2020

Source: The World Bank (2020)

Another important fact about the business environment for foreign investors is the Corruption Perception Index (CPI), which places Slovenia in 35<sup>th</sup> place as the least corrupt country out of 180 (Transparency International, 2021). Another advantage precisely for the investors from the euro area is that Slovenia's currency is the euro, which eliminates the currency risk.

Slovenia does not have any formal official representative authority that that is responsible for FDI. However, there is the Slovenian Public Agency for the promotion of Entrepreneurship, Innovation, Development and Tourism (SPIRIT). The organization promotes Slovenia for foreign investors and offers technical and financial support to them.

Foreign companies that operate in Slovenia have the same rights and obligations as domestic companies. The Law on Foreign Transactions and Law on Commercial Companies are the main laws that protect the rights of foreign companies in Slovenia. On the other hand, there are still some limits for domestic and foreign investors. The main restrictions are in

professional services such as banking, investment services, private pensions, asset and management services and insurance services (Baker, 2021).

The process of establishing the Limited Liability Company (LLC) starts from obtaining the Slovenian tax number. However, before obtaining the Slovenian tax number a foreigner needs to obtain the Slovenian identification number, which is called EMŠO. To register the company a foreigner who does not have Slovenian permanent residence permit, need to provide the certificate of criminal records, the official statement from the tax office, that all the taxes are paid in the home country and the confirmation that the shareholder did not work illegally in home country (Zakon o gospodarskih družbah, (ZGD-1), Ur. 1. RS. no. 42/2006). After providing the package of documents to the registration office (AJPES), the foreigner needs to open a bank account in a Slovenian bank and deposit at least 7,500 EUR as an authorized capital. After providing the confirmation from the bank, the registration office sends the documents to the court, where the final decision about establishing the company is made (Ministerstvo za javno upravo, 2021).

## 5 **RESEARCH QUESTIONS AND HYPOTHESIS**

After analysing the results of empirical studies in section 3.1.1, for analysing the FDI impact on Slovenian economic growth, the main research question of my master thesis is: "How did FDI impact the economic growth in Slovenia during 1995-2018?" Additionally, in which sectors of Slovenian economic activities the FDI has positive or negative effects? For this purpose, I am going to analyse the impact of FDI inwards in the three main economic sectors on the economic growth of Slovenia during 1995-2018. From the analyses of the empirical research in section 3.1 can be seen that there is more evidence proving that FDI has a positive effect on economic growth, therefore, my first hypothesis is the following:

Hypothesis 1: The impact of inward FDI is positive on the economic growth of Slovenia.

Also, in section 3.1.1 where I focused on empirical evidence of the FDI-EG relationship on a sectoral level, the results of FDI-EG in the primary sector were different depending on the country. Alfaro (2003) found a negative effect of FDI on economic growth in the primary sector. However, Awunyo-Vitor & Sackey (2018) and Gachunga (2019) found a positive effect of FDI on economic growth in the agricultural sector. At the same time, Chakraborty & Nunnenkamp (2006) by using the Granger test, did not find any relationship between FDI and economic growth in the primary sector. Alfaro (2003) research has a bigger sample because he focused on 47 countries and I am going to use a similar model for the regression as in Alfaro's research, my second hypothesis will be the following:

Hypothesis 2: The inward FDI in the primary sector has a negative impact on Slovenian economic growth.

The analysis of empirical studies in sections 3.1 and 3.1.1 showed a positive effect of FDI on economic growth in the secondary sector, therefore my third hypothesis will be the following:

Hypothesis 3: The inward FDI in the secondary sector has a positive impact on Slovenian economic growth.

Based on the research of Miteski & Janevska Stefanova (2017), Alfaro (2003) and Iram & Nishat (2009), my fourth hypothesis will be the following:

Hypothesis 4: The inward FDI in the tertiary sector has a positive impact on Slovenian economic growth.

## 6 METHODOLOGY AND DATA

In this section, I am going to describe the data I use in the regression analysis to research the impact of FDI on economic growth in Slovenia. All the data is secondary data that I found in the Bank of Slovenia report 2018 and the World Bank. The sources provide the data for the 1995-2018 period. Therefore, the number of observations is 24. In the report of the Bank of Slovenia, I found data of inward FDI in Slovenia for each economic activity. As I analyse the impact of FDI on economic growth not just in general but also focusing on sectors, I divided the economic activities into 3 main sectors that enable to analyse of the effect of FDI on the economic growth of Slovenia on a sectoral level. In Table 2, can be seen that in my research I am going to have primary sector, secondary sector, and tertiary sector. On the right side of Table 2, there are economic activities that are included in a specific sector.

Economic sector	Economic activities
Primary sector	Agriculture, forestry, and fishing; Mining and quarrying
Secondary sector	Manufacturing; Electricity, gas steam and air conditioning supply; Construction;
Tertiary sector	Wholesale and retail trade, repair of motor vehicles and motorcycles; Transportation and storage; Accommodation and food service activities; Information and Communication; Financial and Insurance activities; Real Estate activities; Other service activities

Table 2: The main sectors in the research

Source: Own work.

The type of data is quantitative, which means that the data describes the information that can be measured and expressed numerically. The variables are chosen based on the literature review. Alfaro's study (2003) is the main empirical research based on what I use the multiple linear regression analysis as an econometric model that is the following:

 $GDP \ per \ capita = \beta_0 + \beta_1 TOTAL\_FDI + \beta_2 TRADE\_OPEN + \beta_3 DOM\_CREDIT + \beta_4 INF + \beta_5 DOM\_INVEST + \beta_6 GOV\_EXP + \varepsilon$ (1)

The regression model for each sector is similar as for the total FDI. For the primary sector the regression model is the following:

$$GDP \ per \ capita = \beta_0 + \beta_1 FDI_PRIM + \beta_2 TRADE_OPEN + \beta_3 DOM_CREDIT + \beta_4 INF + \beta_5 DOM_INVEST + \beta_6 GOV_EXP + \varepsilon$$
(2)

In the similar way there are also regression models for secondary sector:

 $GDP \ per \ capita = \beta_0 + \beta_1 FDI\_SECON + \beta_2 TRADE\_OPEN + \beta_3 DOM\_CREDIT + \beta_4 INF + \beta_5 DOM\_INVEST + \beta_6 GOV\_EXP + \varepsilon$ (3)

and for the tertiary sector:

$$GDP \ per \ capita = \beta_0 + \beta_1 FDI\_TERT + \beta_2 TRADE\_OPEN + \beta_3 DOM\_CREDIT + \beta_4 INF + \beta_5 DOM\_INVEST + \beta_6 GOV\_EXP + \varepsilon$$

$$(4)$$

#### 6.1 Dependent Variable

In my empirical analysis, economic growth is represented by the *GDP per capita*. Economic growth in theory can be measured by GDP growth, GDP, or GDP per capita. Alfaro (2003) in his research used GDP per capita.

The data for Slovenian GDP per capita is from The World Bank (2021b). The data covers the GDP per capita in Slovenia from 1990 - 2019. GDP per capita is measured in local currency that is euros.

#### 6.2 Independent Variables

The independent variables that I am focusing on are total inward FDI, inward FDI in primary, secondary and tertiary sectors.

*TOTAL\_FDI:* Total Slovenian inward FDI in millions of euros measures the level of direct investment by a resident of a foreign economy to Slovenia at the end of the year. Every year Bank of Slovenia publishes data about FDI in Slovenia including the inward FDI for a particular sector. For the empirical analysis, I used the report from the Bank of Slovenia (2019) that includes the data for total inward FDI for 1994 - 2018.

*FDI\_PRIM*, *FDI\_SECON*, *FDI\_TERT*: For the inward FDI by sectors I used the same report from the Bank of Slovenia (2019). The report included the data for inward FDI by economic activities for 1994 - 2018. Based on the data, I calculated the inward FDI for primary, secondary, and tertiary sectors. The FDI in all sectors is presented in millions of euros. The full data can be seen in Appendix 2.

In the regression analysis I also added other independent variables that are the following:

*TRADE\_OPEN:* Trade Openness is a ratio of total trade to GDP. In other words, it is the difference between export and import divided by GDP. The data of the Trade Openness was found in the World Bank (2021c). It represents the Trade Openness in Slovenia during 1990-2019 as a percentage of GDP.

*DOM\_CREDIT:* Domestic credit to private credit is the value of financial resources provided to the private sector by financial corporations in form of loans, purchase of nonequity securities etc. The domestic credit to the private sector is presented as a percentage of GDP. I found the data on the World Bank (2021d) that provided the data from 1995-2019.

*INF:* Inflation or GDP deflator represents the price change in the economy in one year. It is the ratio of nominal GDP to real GDP multiplied by 100. The data was taken from the World Bank (2021e) and included the GDP deflator for 1991-2019.

*DOM\_INVEST:* Domestic Investment is measured by a gross capital formation that is defined as outlays on additions to the economy's fixed assets plus net changes in the level of inventories. The World Bank (2021f) published the data for Slovenian domestic investment for 1990-2019. The data is presented in millions of the current local currency.

*GOV\_EXP:* Government Expenditure or government spending are expenses on goods and services that are spent by the government. I took the data for the Slovenian government expenditure from the Statistical Office of the Republic of Slovenia (2021b). The data is available from 1995-2019.

### 6.3 Strategy and Results

Firstly, I ran the multiple linear regression model by using SPSS with the following:

 $GDP \ per \ capita = \beta_0 + \beta_1 TOTAL\_FDI + \beta_2 TRADE\_OPEN + \beta_3 DOM\_CREDIT + \beta_4 INF + \beta_5 DOM\_INVEST + \beta_6 GOV\_EXP + \varepsilon$ (5)

I checked the collinearity statistics and found that total FDI, government expenditure and trade openness have high multicollinearity because they have a high Variance Inflation Factor (VIF) that is more than 10. High multicollinearity is a problem for the regression model because it makes the model results unstable. When the independent variables are correlated, it means that the change in one independent variable causes the change in another

independent variable. Since I was focusing on the total FDI variable I kept it in the regression model. However, government expenditure and trade openness needed to be extracted because of the high multicollinearity. It is the most used method to solve the problem of multicollinearity in the regression model.

Also, to improve the regression model I included the dummy variable, which is Crisis. I had analysed the economic growth of Slovenia during 1995-2018 by looking at GDP growth data. Figure 5 presents the data of GDP growth in Slovenia, where can be seen that the Slovenian economy experienced a recession in 2009, 2012 and 2013. In the years when the crisis happened, I marked 1 as a dummy variable.



Figure 5: GDP growth in Slovenia (1995-2018)

Source: The World Bank (2021g).

After excluding the government expenditure and trade openness because of the multicollinearity, and adding the crisis as a dummy variable, I ran the regression analysis with the new model for the total FDI (Model 1):

$$GDP \ per \ capita = \beta_0 + \beta_1 TOTAL\_FDI + \beta_2 DOM\_CREDIT + \beta_3 INF + \beta_4 DOM\_INVEST + \beta_5 Crisis + \varepsilon$$
(6)

The similar model was also used for the sectoral level. The regression model for the primary sector (Model 2) was the following:

$$GDP \ per \ capita = \beta_0 + \beta_1 PRIM\_FDI + \beta_2 DOM\_CREDIT + \beta_3 INF + \beta_4 DOM\_INVEST + \beta_5 Crisis + \varepsilon$$
(7)

for the secondary sector (Model 3):

$$GDP \ per \ capita = \beta_0 + \beta_1 SECOND\_FDI + \beta_2 DOM\_CREDIT + \beta_3 INF + \beta_4 DOM\_INVEST + \beta_5 Crisis + \varepsilon$$
(8)

and for the tertiary sector (Model 4):

$$GDP \ per \ capita = \beta_0 + \beta_1 TERT\_FDI + \beta_2 DOM\_CREDIT + \beta_3 INF + \beta_4 DOM\_INVEST + \beta_5 Crisis + \varepsilon$$

$$(9)$$

In the beginning I focused on the descriptive statistics, the results of the descriptive statistics are presented in Table 3. N represents the number of observations. All the variables except the GDP per capita and Crisis have 23 observations. The reason why other independent variables have a lower number of observations than the dependent variable and Crisis by one is that in the regression model I used the lag. This means that the independent variables impact the dependent variable in one year. In other words, the FDI inflows in 2005 will affect GDP per capita in 2006.

The average GDP per capita was 14,510.59 euros in Slovenia during 1995-2018. The highest GDP per capita that Slovenia experienced during that time was 22,114.24 euros and the lowest GDP per capita was 5,307.28. The domestic credit was 49.55% of GDP on average. The minimum of the domestic credit that Slovenia had was only 0.19% and the maximum was 85.06%. Slovenian biggest inflation was 24.5%. Also, descriptive statistics showed that Slovenia had -1.03% inflation, which was the lowest during 1995-2018. On average the inflation was 4.86%. The maximum of the domestic investment was 12,472 million euros and the minimum was 2,689 million euros. On average there were 7,030 million euros of domestic investment during 1995-2018.

Although the average total FDI inflows in Slovenia is 6,474.9 million euros, the standard deviation is significantly different. The standard deviation of total FDI is 3,783.3 million, which means that on average, total FDI deviates from the mean by about 3,783.3 million. On average the FDI in the primary sector deviates from the mean by 26.7 million. Where the maximum FDI in the primary sector during 1995-2018 was 73.6 million euros. The lowest FDI in the primary sector was -0.1 million. On average there were 2,637 million euros of FDI inflows in the secondary sector. In the secondary sector, FDI differs from the mean by 1,230.1 million. In the tertiary sector, there were 3,385 million euros of FDI inflows on average during 1995-2018 in Slovenia.

In general, for most of the independent variable the data is dispersed. It can be seen from the high level of standard deviation. The values of the data are set far away from the means of the independent variables. It shows that Slovenian economy was fast developing for the last 25 years. Primary sector on average received the lowest share of total FDI.

Variables	Ν	Mean	Minimum	Maximum	St deviation
GDP per capita	24	14,510.59	5,307.28	22,114.24	5,022.01
DOM_CREDIT	23	49.55	0.19	85.06	22.74
INF	23	4.86	-1.03	25.40	5.54
DOM_INVEST	23	7,030.54	2,689.39	12,472.14	2,436.22
Crisis	24	0.08	0	1	0.28
TOTAL_FDI	23	6,474.86	1,330.60	13,956.90	3,783.83
FDI_PRIM	23	24.59	-0.10	73.60	26.67
FDI_SECON	23	2,637.32	818.40	5,153.20	1,230.11
FDI_TERT	23	3,385.34	466.10	7,568.90	2,275.84

#### *Table 3: Descriptive statistics*

Note: mean, minimum, maximum and standard deviation of TOTAL\_FDI, FDI\_PRIM, FDI\_SECOND, FDI\_TERT, DOM\_INVEST are presented in millions.

#### Source: Own work.

Figure 6 presents the GDP per capita during 1995-2018. There we can see that Slovenian GDP per capita has increased from 5,307 euros in 1995 to 22,114 euros. However, during 2008-2013 there were some difficulties in the Slovenian economy due to economic crises. From 2013-2018 Slovenia had a rapid increase in GDP per capita.



Figure 6: GDP per capita, 1995-2018

#### Source: The World Bank (2021).

I decided to analyse the changes in FDI inflows during 1995-2018 in more details. Figure 7 presents the total FDI inflows in Slovenia during 1995-2018. It shows a growth of FDI inflows from 1,330 million euros in 1995 to 15,152 million euros in 2018. If we compare Figure 7 with Figure 6, we can see the rapid increase in both variables. However, both figures show some downturns during 2008-2013. The reason for the decrease in FDI inflows during 2008-2013 was the economic crisis. However, after 2013 Slovenia had a stable growth of

FDI until 2018. From the comparison of the slopes of the FDI line before and after the economic crises, can be seen that after the crises FDI had a higher slope than before, which means that the growth of FDI in Slovenia before the economic crises was slower than after.



Figure 7: Total FDI inflows in Slovenia during 1995-2018

Source: Bank of Slovenia (2019).

The data of FDI in the primary sector, which is presented in Figure 8, shows that from 1995-2005 Slovenia had a low number of FDI inflows in the primary sector. The FDI in the primary sector did not exceed 1.2 million euros. Moreover, in 2003 Slovenia had negative FDI. In 2005 the foreigners started to invest more money in the Slovenian primary sector. Moreover, during 2005-2007 the FDI inflows increased by 30 times, from 1.1 million euros to 30.7 million euros. However, that growth of investments lasted only two years. The second increase in FDI in the primary sector happened in 2011 when the FDI inflows amounted to 52.1 million euros. The last pick that FDI in the primary sector achieved was in 2013. In 2014 the FDI inflows in primary sector. Also, FDI in primary sector took a small proportion of the total FDI. This means that foreign investors do not invest a lot of money in the primary sector in Slovenia.



Figure 8: FDI inflows in primary sector in Slovenia during 1995-2018

Source: Bank of Slovenia (2019).

Figure 9 presents the FDI inflows in the secondary sector in Slovenia during 1995-2018. From Figure 8 and Figure 9 can be seen that there were more foreign investments in the secondary sector than in the primary sector. Also, the economic crises in 2009 affected the FDI inflows in the secondary sector. The biggest increase was during 2000-2003. During that period can be seen that FDI inflows increase from 1,337 million euros to 2,710 million euros.



Figure 9: FDI in secondary sector in Slovenia during 1995-2018

Source: Bank of Slovenia (2019).

Figure 10 presents the FDI inflows in the tertiary sector in Slovenia during 1995-2018. The figure shows that Slovenia had a growth of FDI in the tertiary sector until the economic crisis in 2009. However, in 2011 the FDI increased, in 2013 the downturn of FDI inflows can be noticed. After 2013 Slovenia experienced an increase of FDI inflows in the tertiary sector until 2018.



Figure 10: FDI in tertiary sector in Slovenia during 1995-2018

Source: Bank of Slovenia (2019).

The most important outcomes of the regression analysis are the results of the coefficients and *p*-values of the significance, all the results are presented in Table 4. Table 4 presented the coefficients and its *p*-values for each independent variable for all the models that I used for the regression analysis.

In Table 4 Model 1 represents the results of the regression analysis for the total FDI. It shows that R Square is 0.98 which means that 98% of the data fits the model. Also, the results of the ANOVA test, shows that the regression is statistically significant, the *p*-value is 0.00, which is lower than 5%. The *p*-value of significance for all independent variables, except the domestic credit and crisis, is lower than 0.05, which means that the variables have a significant effect on the dependent variable. From the *p*-values can be seen that that inflation has a significant negative impact on economic growth because it has negative coefficient (-99.36) and crisis has a non-significant negative impact on economic growth. The total FDI and domestic investment have a significant positive effect on economic growth. Also, domestic credit has a positive effect on economic growth however, it does not effect significantly, the *p*-value is 0.2 that is higher than 0.05. Another important coefficient for

my analysis is the coefficient for the total FDI. It shows that every 1 unit increase in total FDI will increase the GDP per capita on average by 0.81 points (p < 0.00).

Model 2 presents the results of the regression analysis for the FDI in the primary sector. R Square shows that 95% of the data fits the model. ANOVA test shows that the *p*-value is lower than 0.05, which means that the regression model is accepted, and all independent variables provide a significant impact on the dependent variable. From the coefficients and *p*-values in Model 2 can be seen that that FDI in the primary sector has a positive effect on economic growth it is proved by an unstandardized beta coefficient that is 88.41. It means that if FDI in the primary sector increases by 1million euros, the GDP per capita will increase by 88.41 euros ceteris paribus. Moreover, from the level of significance can be said that FDI in the primary sector has a significant positive effect on economic growth because the *p*-value is less than 0.001. Based on the coefficients of other independent variables can be concluded that Inflation has a negative significant impact on economic growth. Also, domestic credit and crisis have a negative nonsignificant impact on economic growth.

In Model 3 the results of the regression analysis for the FDI in the secondary sector are presented. R Square is 0.98 which means that 98% of the data fit the model of the regression. From ANOVA results we can see that the regression model fits because the p-value is lower than 0.05. The coefficients show that FDI in the secondary sector has a significant positive effect on economic growth. It is proved by the unstandardized beta, which is positive (2.54). Also, the p-value is lower than 0.05 which means that FDI in the secondary sector has a significant effect on economic growth. The coefficients and p-values of other independent variables show that in the secondary sector inflation and crisis have a negative non-significant effect on economic growth. At the same time, domestic investment with the coefficient of 0.39 and domestic credit with the coefficient 43.17 have a significant positive effect on economic growth.

From Model 4, where the results of the regression analysis for the FDI in the tertiary sector are presented, can be seen that 97.5% of the data fit the model of the regression. The ANOVA shows that the model's *p*-value is lower than 0.05 which proves that the model fits as well. The coefficient of the FDI in the tertiary sector is 1.34 that proves the positive relationship with economic growth. The *p*-value of the coefficient is lower than 0.05 that proves a significant effect of FDI in the tertiary sector on economic growth. The coefficients for the other independent variables show that domestic credit and crisis has a negative non-significant effect on economic growth. Also, inflation has a significant negative effect on economic growth, where the unstandardized beta coefficient is -121.52. Domestic investment the same as FDI in the tertiary sector has a significant positive impact on economic growth and its unstandardized beta coefficient is 0.65.

As can be seen from Table 4, all models have high R Square. The reason why the R Squares are high is that in the models I included the different forms of the same variable for

dependent and independent variables. In other words, GDP per capita (dependent variable), consists of consumption, government expenditure, investment, and net export. Both domestic investment and foreign direct investment are also used as independent variables, boosting the value of R Square.

Variables	Model 1	Model 2	Model 3	Model 4
Constant	5,459.11	7,184.88	3,807.46	6,526.89
Constant	(<0.001)	(<0.001)	(<0.001)	(<0.001)
DOM CREDIT	13.37	-6.64	43.17	-0.69
DOWI_CKEDII	(0.200)	(0.712)	(<0.001)	(0.953)
INIE	-99.36	-180.75	-77.63	-121.52
IINF	(0.045)	(0.025)	(0.118)	(0.029)
DOM INVEST	13.37	0.97	0.39	0.65
DOWI_INVEST	(<0.001)	(<0.001)	(0.004)	(<0.001)
Criaia	-1,185.23	-890.96	-1,092.84	-1,143.89
Crisis	(0.108)	(0.458)	(0.142)	(0.165)
	0.81			
IUIAL_FDI	(<0.001)			
		88.41		
		(<0.001)		
SECON EDI			2.54	
SECON_FDI			(<0.001)	
TEDT EDI				1.34
IEKI_FDI				(<0.001)
RSquare	0.98	0.95	0.98	0.98
ANOVA	<0.001	<0.001	<0.001	<0.001
Significance	<0.001	<0.001	<0.001	<0.001

#### Table 4: Coefficients and p-values

*p*-values of significance are presented in brackets

Source: Own work.

## 7 DISCUSSION

Attitude and governmental policies toward FDI in Slovenia changed. When Slovenia was a part of Yugoslavia, the reaction of people was sceptical about the FDI. It can be explained by the country's ideology of socialism, which was against foreign ownership. However, the government adapted the policies and enabled FDI. The joint ventures were the only option for FDI in Yugoslavia. After the collapse of Yugoslavia, other forms of FDI were enabled in Slovenia. When Slovenia became independent the number of FDI increased. From the theoretical point of view, the FDI in Slovenia can be explained by the eclectic theory. Usually, most of the foreign companies that enter the Slovenian market have a firm-specific advantage in form of advanced technology or patents. Also, the foreign firms prefer to invest in Slovenian companies along the supply chain to decrease the transportation costs, because Slovenia has a suitable location in Central Europe that enables to deliver the goods faster.

The biggest inward FDI in Slovenia happened in 2002, two years before Slovenia became a part of the EU. The Slovenian perspective of becoming an EU member increased the number of foreign investors, therefore they heavily invested in Slovenia in 2002. Even today the level of inward FDI is much lower compared to 2002. Compared to other EU countries Slovenia has low level of inward FDI, which is 38% of GDP, it is lower than the average inward FDI in the EU, that is 75% of GDP. For example, in Luxembourg the level of inward FDI is 856% of GDP. The lowest level of inward FDI in the EU is in Greece, which is only 22% of GDP (OECD, 2021b). However, for the last three years, Slovenia experiences the stable growth of inward FDI. Therefore, I was interested whether foreign direct investment helps to Slovenian economy, or it negatively effects it.

Many people think that FDI is always a good thing because it brings capital to the host country and create the jobs in case of greenfield investment for example. However, after literature review and analysis of empirical studies, I understood that the relationship between inward FDI and host country's economic growth had ambiguous results. Also, many research used different methods, models, and variables. Some empirical analysis used GDP or GNP as a variable for economic growth some authors used GDP per capita or GDP growth. The theory and most of the empirical evidence proved a positive effect of FDI on economic growth in primary sector, some studies got positive results. Most of the studies showed a positive effect of FDI on economic growth in secondary and tertiary sectors.

Focusing on Slovenian economic growth I made the hypothesis based on theory and empirical studies. My study shows that inward FDI has a positive effect on Slovenian economic growth. It supports the findings of most of the academic literature such as Borenstein De Gregorio & Lee (1998), Nunnenkamp & Spatz (2003), Miteski & Janevska Stefanova (2017), Iram & Nishat (2009) and Alfaro (2003). In other words, my first hypothesis was proven.

On the sectoral level, the results showed that inward FDI has a significant positive effect in primary, secondary, and tertiary sectors. It does not prove my second hypothesis that states that the impact of inward FDI on economic growth in the primary sector is negative. My second hypothesis was made based on Alfaro (2003) research who focused on FDI and economic growth relationship in 47 developed countries. I used a similar regression model as it was made in his research. However, my result in the primary sector was different. Also, my study proves the conclusion of other recent academic research such as Awunyo-Vitor & Sackey (2018) and Gachunga (2019) that focused on inward FDI in the agriculture sector, which is a part of primary sector in my research. Also, I have analysed the other research of FDI in the mining sector. Some of them found a positive effect of FDI in both sectors for economic growth. Gochero & Boopen (2020) analysed the impact of FDI on the economic growth of Zimbabwe in the mining sector during 1988-2018. The study showed a positive effect of FDI in the mining sector. Also, the research that was made by Bucaj (2018) showed

a positive effect of FDI in the mining sector on Kosovo's economic growth. As can be seen the results of the analysis of the FDI and economic growth in the primary sector that includes agriculture and mining activities are quite ambiguous. On one hand, there is Alfaro (2003) research that shows the negative impact of FDI in the primary sector on economic growth in 47 countries. On the other hand, the studies that are focused on agriculture and mining economic activities, show a positive effect of FDI economic growth. Moreover, Bucaj (2018) explained in his article that the results of other studies vary. Also, he explained that in the primary sector where most of the economic activities are more prone to extractive actions, the companies usually export unprocessed cheap materials. The companies are not interested in investing money into plants in the host country since they are engaged in the export of cheap materials. As a result, the host countries export cheap materials and cannot finance the imports of FDI in the primary sector on economic growth. However, in my study, the Slovenian economy has a positive effect from the FDI in the primary sector. It can be explained by the following facts:

- 1. Based on the WITS data (2021a), the level of export of the raw unprocessed materials during 1995-2018 was only 2.97% of total export.
- 2. According to WITS data (2021b), the level of export of the minerals during 1995-2018 was only 0.28% of total export.

It shows that the export in agriculture and mining of unprocessed products is very low. Therefore, FDI in the primary sector does not hurt the economy of Slovenia.

## CONCLUSION

Foreign direct investment is one of the important determinants of economic growth. Slovenia opened its economy for foreign investors in 1991, when it became independent. However, I did not find any empirical evidence that would show whether FDI has a positive, negative, or neutral effect on Slovenian economic growth. In my master thesis, I investigated the impact of FDI on economic growth in Slovenia employing FDI inflows data during 1995-2018. Also, I have analysed the impact of FDI inflows on Slovenian economic growth on the sectoral level.

I started with a more detailed theoretical description of the FDI concept and its types. FDI is a broad concept that includes two main determinants. We speak about FDI when we have foreign ownership and foreign control over assets. These two details distinguish FDI from portfolio investment. Since the FDI is a broad concept there are different types of it. In my master thesis, I included three main groups that define the types of FDI. Firstly, FDI is differentiated between horizontal, vertical, and conglomerate. Secondly, FDI can be different in terms of operation: export-substitution or import-substituting. Thirdly, FDI can be defensive or expansionary, depending on the main foal of FDI. Also, I analysed the theories of FDI. In the literature review, I focused on the macroeconomic effects of FDI in host countries and compared it with the empirical evidence. The research papers that investigated the FDI and host country's economic growth relationship provided different results. In other words, the impact of FDI on economic growth varied from country to country. In general, can be said that FDI is a broad concept that is included in many theories of international business. Another important element for the FDI concept is MNC. MNC and FDI are closely connected. I included the different types of MNCs that are multinational, international, and transnational. Also, my master thesis includes the entry model of MNCs, which has four main steps: export, licence, subsidiary establishment in a foreign market and building manufacture abroad. From these four steps, can be seen that FDI is present in the last two, that are subsidiary establishment and building manufacture and plants abroad. To see how exactly FDI is involved in those two steps of the entry model I focused on the forms of entering a new market that involves FDI. These are greenfield investment, M&A and joint ventures.

In my master thesis, I also included the history of FDI. It is hard to determine the exact time when FDI started to exist. However, according to the theory, it was after the First World War. Because of the Great Depression, the global FDI decreased. However, after the Second World War, the FDI inflows from the USA to European countries increased dramatically. As a result, the European countries got financial support and technology. When the economic situation in Europe became more stable, the FDI inflows from the European countries to the USA increased. For today, the USA is still a leader in the number of FDI stocks globally. However, the Covid-19 pandemic situation negatively affected the global FDI and the developed counties were hit the most by it.

In the second part, I focused on the theories of FDI that explain the causes and consequences of FDI in general. In theory, two main groups combine the theories of FDI. The first group are the theories that assume a perfect market. It consists of three hypotheses, that are differential rates of return, portfolio diversification and output and market size hypothesis. The second group of theories assumes an imperfect market and includes six hypotheses that are industrial organization hypothesis, internalization hypothesis, location hypothesis, eclectic theory, product life cycle theory and oligopolistic reactions hypothesis.

In the third part, I analysed the macroeconomic effects of FDI in host countries. The main macroeconomic elements were a balance of payment, employment, trade flows, technology, inter-industry linkages, market structure, environment, and economic growth. The impact of FDI on the balance of payments depends on whether there are more capital inflows or outflows that are caused by FDI. If FDI creates more imports than export, then FDI has a negative effect. If FDI creates more export than imports, then the effect of FDI on the balance of payments should be positive. Based on the theory, FDI has a positive effect on employment. Especially if we speak about the greenfield investment where the FDI creates more jobs in the host country. The relationship between FDI and trade flows is similar to the balance of payments. When FDI is vertical, the effect of FDI on trade flows is positive. If

there is a horizontal FDI, then the effect of FDI on the trade flows depends on whether FDI creates more export or import. In terms of technology, FDI has a positive effect, because FDI is one of the most efficient ways for technological transfer. Many authors pointed out the role of FDI in an industry. They believe that companies with FDI are more productive and efficient due to new technologies. As a result, FDI brings innovation and motivate the local companies to be more efficient. In the end, the quality of operations increases, and the full industry became more developed. There are two sides of the FDI effect when we speak about the FDI and market structure. Firstly, FDI improves the market structure because it increases the competition. Also, as was mentioned before, FDI brings new technology and motivate other domestic companies to be more innovative. As a result, FDI decreases monopoly, and the market becomes more competitive. On the other hand, if there are weak companies in the host country, the companies with FDI can create a monopoly or oligopoly, which will negatively affect the market structure. In the literature, I found only one negative effect of FDI on the host country. It is an environment. All authors agree that FDI harms the environment in the host countries that have low environmental standards or do not have them at all. In other words, if the host country does not protect its environment by high environmental requirements/policies, it will have a negative effect from the FDI inflows. Another important element in the literature review was the relationship between FDI and economic growth. In theory, the effect of FDI on economic growth depends on many factors. Firstly, it is the dependence of the host country on foreign investment. If the host country has a high dependence on foreign investment, then FDI will have a negative effect on the economic growth of the host country. However, the authors did not mention what the high dependence on foreign investment means and how to understand if it is high or not. Secondly, if there is a high technological gap between the company with FDI and the host country, the FDI will have a negative effect on economic growth. In other cases, the FDI has a positive effect on FDI, mostly because of the transfer of technology and knowledge and capital. After analysing the empirical studies about the FDI and economic growth relationship, it was hard to conclude whether FDI has a positive or negative effect on economic growth. The results of the studies were ambiguous. Moreover, some empirical analyses showed a neutral relationship between FDI and economic growth. On a sectoral level, most of the empirical research showed a positive effect on secondary and tertiary sectors. The effects of FDI on economic growth in the primary sector were mostly negative.

In the next part, I analysed the FDI in Slovenia. Slovenian region always had a good potential for foreign investors, mostly because of its location. However, during the Yugoslavian time, the FDI in the Slovenian region did not exist. Yugoslavia did not allow FDI inflows. In 1967, Yugoslavia became the second country after the Soviet Union, which introduced the FDI legislation. However, the level of FDI in Yugoslavia did not increase a lot due to many restrictions for foreign investors. Yugoslavia allowed FDI only in form of a joint venture. As a result, the foreign investors could not owe the companies or any kind of property. In 1988, Yugoslavia changed its FDI legislation and allowed foreigners to owe the companies, but it also did not increase the level of FDI a lot. After the collapse of Yugoslavia, Slovenia

became independent. Therefore, the level of FDI increased. The biggest increase of FDI inflows was in 2002, two years before the EU accession. The financial crisis in 2008 negatively affected the FDI in Slovenia. However, in 2013 the FDI inflows recovered, and Slovenia had a stable increase in FDI. The biggest investors are mostly from the EU country. Based on the statistics, the companies with FDI are more successful than the domestic companies. They have higher profits, wages, and ROE. The highest concentration of FDI is in the central part of Slovenia, where the capital of the country is located. In general, can be said that Slovenia is attractive for foreign investors, mostly because of the location, well-developed infrastructure, and highly qualified workforce.

In the empirical part of my master thesis, I analysed the impact of FDI on Slovenian economic growth during 1995-2018. Also, I focused on analysing the effect of FDI on Slovenian economic growth on sectoral level. Firstly, based on the literature review I created the hypothesis and determined the variables for the regression analysis. The same as most of the authors I used the multiple linear regression. At the beginning of the empirical part of my master thesis, I ran the first model that was focused on the relationship between the total FDI inflows and Slovenian economic growth. In the second model, I focused on the impact of FDI inflows on economic growth in the primary sector. In the third model, I analysed how FDI inflows effect the economic growth in the secondary sector. In the fourth model, I analysed the impact of FDI inflows on economic growth in the secondary sector.

The results of the regression showed that FDI had a positive effect on Slovenian economic growth during 1995-2018. Also, the FDI had a positive effect in all sectors: primary, secondary, and tertiary. Based on the results, can be concluded that FDI inflows have a positive impact on Slovenian economic growth not only in general but also at the sectoral level.

The results and conclusions of the master thesis provide evidence that FDI inflows are beneficial for the Slovenian economy. Also, it gives an idea that Slovenia should attract more investments from abroad to increase its economic potential and development.

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**APPENDICES** 

#### Appendix 1: Povzetek (Summary in Slovene language)

Ko se je Slovenija leta 1991 osamosvojila, je to odprlo veliko možnosti za vključitev v globalno ekonomijo. Mlado slovensko gospodarstvo je od takrat dalje zagotavljalo veliko priložnosti za tuje vlagatelje, še posebej dve leti pred vstopom Slovenije v Evropsko Unijo, ko se je število tujih neposrednih naložb (TNN) močno povečalo. Te predstavljajo pomemben del slovenskega gospodarstva ter se povečujejo. Kljub temu je pojem tujih neposrednih naložb in njihov vpliv na gospodarstvo države gostiteljice še vedno pereča tema.

Raziskave na področju vpliva TNN na gospodarsko rast države gostiteljice imajo nasprotujoče si rezultate. Nekatere raziskave dokazujejo, da tuje neposredne naložbe pozitivno vplivajo na gospodarsko rast, nekatere pa kažejo, da tuje neposredne naložbe ali nimajo vpliva na gospodarsko rast ali pa vplivajo celo negativno. Zaradi takšnih ugotovitev je težko podati odgovor, kakšen je dejanski vpliv TNN na gospodarsko rast. Slovenija je v primerjavi z drugimi Evropskimi državami relativno mlado gospodarstvo, zato manjkajo dodatne analize vpliva TNN na njen razvoj. Posledično je koristno podrobneje analizirati, kakšen vpliv so imele tuje neposredne nalože na razvoj Slovenije.

Cilj magistrskega dela je raziskati, kako prilivi tujih neposrednih naložb vplivajo na slovensko gospodarsko rast. Hkrati v magistrskem delu analiziramo vpliv TNN na gospodarsko rast v primarnem, sekundarnem in terciarnem sektorju. Na podlagi pregledane literature in preučitve teorije postavimo domneve in oblikujemo regresijski model.

Rezultati in zaključki magistrskega dela dokazujejo, da so prilivi tujih neposrednih naložb koristni za slovensko gospodarstvo tako v celoti kot tudi v primarnem, sekundarnem in terciarnem sektorju. Prav tako lahko zaključimo, da bi morala država Slovenija pritegniti čim več tujih naložb, saj bi tako lahko povečala svojo gospodarsko rast in razvoj.

# Appendix 2: The calculated data for inward FDI by sectors

Sector / Year	1994	1995	1996
Primary	600.000,00€	700.000,00€	800.000,00€
Agriculture, forestry, and fishing	200.000,00€	300.000,00€	400.000,00€
Mining and quarrying	400.000,00€	400.000,00€	400.000,00€
Secondary	732.000.000,00€	818.400.000,00€	884.500.000,00€
Manufacturing	488.600.000,00€	580.000.000,00€	668.400.000,00€
Electricity, gas steam and air conditioning supply	241.800.000,00€	236.200.000,00€	213.300.000,00€
Construction	1.600.000,00€	2.200.000,00€	2.800.000,00€
Tertiary	299.500.000,00€	466.100.000,00€	582.000.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	160.700.000,00€	188.500.000,00€	250.200.000,00€
Transportation and storage	14.700.000,00€	16.100.000,00€	14.300.000,00€
Accommodation and food service activities	7.000.000,00€	10.500.000,00€	3.900.000,00€
Information and Communication	2.700.000,00€	13.900.000,00€	26.400.000,00€
Financial and Insurance activities	112.800.000,00€	230.300.000,00€	277.600.000,00€
Real Estate activities	600.000,00€	3.700.000,00€	6.000.000,00€
Other service activities	1.000.000,00€	3.100.000,00€	3.600.000,00€

Sector / Year	1997	1998	1999	2000
Primary	1.900.000,00€	1.000.000,00€	1.200.000,00€	700.000,00€
Agriculture, forestry, and fishing	1.500.000,00€	600.000,00€	900.000,00€	500.000,00€
Mining and quarrying	400.000,00€	400.000,00€	300.000,00€	200.000,00€
Secondary	1.053.300.000,00€	1.271.100.000,00€	1.321.800.000,00€	1.366.500.000,00€
Manufacturing	845.500.000,00€	1.257.100.000,00€	1.294.900.000,00€	1.343.000.000,00€
Electricity, gas steam and air conditioning supply	203.900.000,00€	10.200.000,00€	19.300.000,00€	18.500.000,00€
Construction	3.900.000,00€	3.800.000,00€	7.600.000,00€	5.000.000,00€
Tertiary	694.300.000,00€	757.700.000,00€	879.300.000,00€	1.020.700.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	342.600.000,00€	373.400.000,00€	399.600.000,00€	471.300.000,00€
Transportation and storage	41.400.000,00€	38.100.000,00€	34.000.000,00€	39.200.000,00€
Accommodation and food service activities	13.900.000,00€	16.500.000,00€	17.500.000,00€	18.800.000,00€
Information and Communication	25.800.000,00€	31.200.000,00€	43.100.000,00€	52.300.000,00€
Financial and Insurance activities	254.300.000,00€	260.100.000,00€	342.600.000,00€	404.800.000,00€
Real Estate activities	12.200.000,00€	34.300.000,00€	38.600.000,00€	31.900.000,00€
Other service activities	4.100.000,00€	4.100.000,00€	3.900.000,00€	2.400.000,00€

Sector / Year	2001	2002	2003	2004
Primary	700.000,00€	3.600.000,00€	-100.000,00 €	1.500.000,00€
Agriculture, forestry, and fishing	800.000,00€	1.100.000,00€	1.900.000,00€	2.500.000,00€
Mining and quarrying	-100.000,00€	2.500.000,00€	-2.000.000,00€	-1.000.000,00€
Secondary	1.337.500.000,00€	1.799.900.000,00€	2.710.400.000,00€	2.862.800.000,00€
Manufacturing	1.307.200.000,00€	1.766.900.000,00€	2.458.700.000,00€	2.609.500.000,00€
Electricity, gas steam and air conditioning supply	28.600.000,00€	25.300.000,00€	251.100.000,00€	250.000.000,00€
Construction	1.700.000,00€	7.700.000,00€	600.000,00€	3.300.000,00€
Tertriary	1.359.700.000,00€	1.719.100.000,00€	1.919.500.000,00€	2.145.200.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	593.100.000,00€	628.800.000,00€	712.900.000,00€	766.200.000,00€
Transportation and storage	33.200.000,00€	46.500.000,00€	43.000.000,00€	74.600.000,00€
Accomodation and food service activities	20.400.000,00€	19.100.000,00€	15.100.000,00€	17.300.000,00€
Information and Communication	151.500.000,00€	184.500.000,00€	198.800.000,00€	207.100.000,00€
Financial and Insurance actvities	527.600.000,00€	786.600.000,00€	887.400.000,00€	1.009.000.000,00€
Real Estate activities	33.700.000,00€	53.800.000,00€	62.800.000,00€	71.400.000,00€
Other service activities	200.000,00€	-200.000,00€	-500.000,00€	-400.000,00€

Sector / Year	2005	2006	2007	2008
Primary	1.100.000,00€	12.700.000,00€	30.700.000,00 €	29.400.000,00€
Agriculture, forestry, and fishing	2.500.000,00€	8.000.000,00€	12.400.000,00€	11.600.000,00€
Mining and quarrying	-1.400.000,00€	4.700.000,00€	18.300.000,00€	17.800.000,00€
Secondary	2.929.300.000,00€	2.801.600.000,00€	2.992.800.000,00€	3.296.400.000,00€
Manufacturing	2.652.800.000,00€	2.524.500.000,00€	2.618.000.000,00€	2.926.100.000,00€
Electricity, gas steam and air conditioning supply	253.900.000,00€	251.200.000,00€	270.100.000,00€	280.100.000,00€
Construction	22.600.000,00€	25.900.000,00€	104.700.000,00€	90.200.000,00€
Tertiary	2.784.100.000,00€	3.625.700.000,00€	4.078.200.000,00€	4.725.600.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	1.024.300.000,00€	1.144.200.000,00€	1.276.400.000,00€	1.674.000.000,00€
Transportation and storage	72.300.000,00€	92.800.000,00€	119.800.000,00€	131.600.000,00€
Accommodation and food service activities	25.500.000,00€	21.800.000,00€	24.000.000,00€	38.900.000,00€
Information and Communication	221.800.000,00€	291.400.000,00€	280.700.000,00€	366.600.000,00€
Financial and Insurance activities	1.256.700.000,00€	1.836.700.000,00€	2.015.700.000,00€	2.279.400.000,00€
Real Estate activities	179.600.000,00€	232.800.000,00€	351.600.000,00€	227.400.000,00€
Other service activities	3.900.000,00€	6.000.000,00€	10.000.000,00€	7.700.000,00€

Sector / Year	2009	2010	2011	2012
Primary	27.400.000,00€	27.300.000,00€	52.100.000,00€	57.800.000,00€
Agriculture, forestry, and fishing	8.000.000,00€	8.100.000,00€	11.700.000,00€	14.200.000,00€
Mining and quarrying	19.400.000,00€	19.200.000,00€	40.400.000,00€	43.600.000,00€
Secondary	2.863.700.000,00€	2.750.400.000,00€	2.939.900.000,00€	3.236.600.000,00€
Manufacturing	2.460.900.000,00€	2.349.100.000,00€	2.508.500.000,00€	2.800.400.000,00€
Electricity, gas steam and air conditioning supply	282.000.000,00€	281.800.000,00€	297.600.000,00€	309.300.000,00€
Construction	120.800.000,00€	119.500.000,00€	133.800.000,00€	126.900.000,00€
Tertiary	4.368.300.000,00€	4.620.300.000,00€	5.215.600.000,00€	5.291.100.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	1.701.700.000,00€	1.815.600.000,00€	1.845.400.000,00€	1.939.100.000,00€
Transportation and storage	115.100.000,00€	98.800.000,00€	100.900.000,00€	117.400.000,00€
Accommodation and food service activities	27.700.000,00€	29.700.000,00€	30.000.000,00€	31.400.000,00€
Information and Communication	267.100.000,00€	274.100.000,00€	283.800.000,00€	307.300.000,00€
Financial and Insurance activities	1.976.400.000,00€	2.130.500.000,00€	2.142.300.000,00€	2.139.000.000,00€
Real Estate activities	266.500.000,00€	257.400.000,00€	798.700.000,00€	741.500.000,00€
Other service activities	13.800.000,00€	14.200.000,00€	14.500.000,00€	15.400.000,00€

Sector / Year	2013	2014	2015	2016
Primary	62.400.000,00€	57.500.000,00€	59.100.000,00€	62.400.000,00€
Agriculture, forestry and fishing	15.200.000,00€	15.800.000,00€	16.000.000,00€	18.800.000,00€
Mining and quarrying	47.200.000,00€	41.700.000,00€	43.100.000,00€	43.600.000,00€
Secondary	3.429.900.000,00€	3.724.700.000,00€	4.408.200.000,00€	4.705.400.000,00€
Manufacturing	2.963.600.000,00€	3.305.000.000,00€	3.971.500.000,00€	4.218.700.000,00€
Electricity, gas steam and air conditioning supply	317.100.000,00€	334.100.000,00€	348.200.000,00€	332.700.000,00€
Construction	149.200.000,00€	85.600.000,00€	88.500.000,00€	154.000.000,00€
Tertiary	4.714.100.000,00€	5.644.400.000,00€	6.315.800.000,00€	7.367.200.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	1.780.000.000,00€	2.329.900.000,00€	2.462.600.000,00€	2.494.700.000,00€
Transportation and storage	143.000.000,00€	376.400.000,00€	280.500.000,00€	291.600.000,00€
Accommodation and food service activities	27.800.000,00€	28.300.000,00€	86.500.000,00€	97.600.000,00€
Information and Communication	355.100.000,00€	555.500.000,00€	711.000.000,00€	749.500.000,00€
Financial and Insurance activities	1.652.600.000,00€	1.587.400.000,00€	2.058.700.000,00€	2.922.600.000,00€
Real Estate activities	739.500.000,00€	749.600.000,00€	698.200.000,00€	792.000.000,00€
Other service activities	16.100.000,00€	17.300.000,00€	18.300.000,00€	19.200.000,00€

Sector / Year	2017	2018
Primary	73.600.000,00€	82.100.000,00€
Agriculture, forestry, and fishing	22.000.000,00€	22.300.000,00€
Mining and quarrying	51.600.000,00€	59.800.000,00€
Secondary	5.153.200.000,00€	5.939.000.000,00€
Manufacturing	4.578.600.000,00€	5.362.200.000,00€
Electricity, gas steam and air conditioning supply	355.900.000,00€	379.800.000,00€
Construction	218.700.000,00€	197.000.000,00€
Tertiary	7.568.900.000,00€	7.786.700.000,00€
Wholesale and retail trade, repair of motor vehicles and motorcycles	2.438.300.000,00€	2.661.900.000,00€
Transportation and storage	273.700.000,00€	257.300.000,00€
Accommodation and food service activities	102.300.000,00€	117.600.000,00€
Information and Communication	779.200.000,00€	801.400.000,00€
Financial and Insurance activities	3.054.100.000,00€	2.923.100.000,00€
Real Estate activities	902.500.000,00€	1.007.200.000,00€
Other service activities	18.800.000,00€	18.200.000,00€