Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Bachelor Thesis

Foreign Direct Investment in the Contemporary World with a Focus on Kazakhstan.

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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Thesis title

Foreign Direct Investment in the Contemporary World with a Focus on Kazakhstan

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Objectives of thesis

The main objective of the bachelor thesis is to evaluate the importance of FDI in economic development and describe the role of FDI in Kazakhstan. To identify and analyze the main factors contributing to attracting FDI inflow to Kazakhstan.

Methodology

The thesis consists of two parts: the theoretical part and the practical part. In the theoretical part, the FDIs and their role in the world economy will be described using general information based on a literature review. In the practical part, the specific case of Kazakhstan will be analysed and evaluated using relevant methods, like analysis, synthesis and data evaluation.

The proposed extent of the thesis

30 – 40 pages

Keywords

economy, economic development, foreign direct investments, inflow, Kazakhstan

Recommended information sources

KRUGMAN, P R. – OBSTFELD, M. – MELITZ, M J. *International economics : theory and policy.* Boston: Pearson Education Limited, 2018. ISBN 978-1-292-21487-0.

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Declaration

I declare that I have worked on my bachelor thesis titled "Foreign Direct Investment in the Contemporary World with a Focus on Kazakhstan" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on _____

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Acknowledgement:

I would like to thank my thesis supervisor for his advice and support. I appreciate the time of **doc Ing. Karel Tomšík** spent correcting my work and advising me the needed corrections, especially from the perspective of "Statistical" analysis. I am deeply thankful to study from such a brilliant professor as **"doc. Ing. Karel Tomšík ".**

Foreign Direct Investment in the Contemporary World with a Focus on Kazakhstan.

Abstract

Bachelor thesis is devoted to explaining the topic of Foreign Direct Investments in Kazakhstan. In addition, I find this issue to be significant and intriguing on a personal level since I was born and raised in Kazakhstan and thus, it helped me to gain more knowledge about my country and further projection of development. The author analysis the relationship between Foreign Direct Investments and Economic growth for the time period of 2007 up to 2021.

The author bases the research on statistical analysis with the model that includes dependent variables and independent variables. The author tests how Foreign Direct Investments impact the economic wealth of Kazakhstan. However, additionally, the author analyses how macroeconomic determinants impact the foreign direct investments inflow in Kazakhstan, especially, Inflation rate, Exchange rate and Corruption Index. The proposed hypothesis will be mentioned in the **Chapter – 1.2.**

The theoretical part demonstrates how the above-mentioned variables related to the foreign direct investments. In the empirical part, the author analyses the relationship between "Inflation rate" and FDI's, "Exchange rate" and FDI's and "Corruption Index" and FDI's. The time series is taken from 2007 up to 2021.

Eventually, the author draws a conclusion based on the results of the statistical analysis.

Keywords:

Economy, economic development, foreign direct investments, inflow, Kazakhstan.

Přímé zahraniční investice v současném světě se zaměřením na Kazachstán.

Abstrakt

Bakalářská práce je věnována vysvětlení tématu přímých zahraničních investic v Kazachstánu. Kromě toho považuji toto téma za významné a zajímavé na osobní úrovni, protože jsem se narodil a vyrostl v Kazachstánu, což mi pomohlo získat více znalostí o mé zemi a další projekci rozvoje. Autor analyzuje vztah mezi přímými zahraničními investicemi a ekonomickým růstem pro časové období 2007 až 2021.

Autor zakládá výzkum na statistické analýze s modelem, který zahrnuje závislé proměnné a nezávislé proměnné. Autor testuje, jak přímé zahraniční investice ovlivňují ekonomické rozvoj Kazachstánu. Kromě toho však autor analyzuje, jak makroekonomické determinanty ovlivňují příliv přímých zahraničních investic do Kazachstánu, zejména míru inflace, směnný kurz a index korupce. Navržená hypotéza bude zmíněna v kapitole – 1.2.

Teoretická část ukazuje, jak výše uvedené proměnné souvisejí s přímými zahraničními investicemi. V empirické části autor analyzuje vztah mezi „mírou inflace" a PZI, „směnným kurzem" a FDI a „indexem korupce" a FDI. Časová řada je převzata od roku 2007 do roku 2021.

Nakonec autor vyvodí závěr na základě výsledků statistické analýzy.

Klíčová slova:

Ekonomika, ekonomický rozvoj, přímé zahraniční investice, příliv, Kazachstán.

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Introduction

Kazakhstan has experienced the flow of investments right after its independence, in 1993. It has certainly boosted the economic growth due to investments, especially in the field of oil and gas sector. The prospect of Kazakhstan's enormous oil reserves has contributed significantly to the country's rise to prominence on the global stage. As a result, the oil industry in Kazakhstan had emerged as the most important contributor to the nation's overall economy. Kazakhstan already ranks among the top countries globally in terms of its oil reserves, and the country has high hopes of becoming an even more prominent participant in the global oil market in the years ahead. Kazakhstan is aggressively striving to obtain additional foreign direct investment (FDI) in order to facilitate the continuing prosperous growth of the country. This FDI would have a good impact on capital inflow, technology, managerial skills, and market know-how.

For this reason, it is vital to investigate the primary elements and drivers of FDI, as well as the effect of FDI on Kazakhstan's oil industry, as well as the way FDI affected Kazakhstan's economy and the country's progress overall. These studies would be useful not only for experts who make forecasts, do investigation, and lead international organizations, but also for the governments of Kazakhstan and organizations within the government of Kazakhstan in order to understand the policy investments of Kazakhstan and also improve the positions where Kazakhstan lags behind.

Foreign direct investment (FDI) is one of the most important contributors to the world economy, and it has a wide range of important consequences on the economy of the country that receives it. These effects include effects on economic growth, general welfare, output, and exports.

In addition, while we are doing these studies, we will identify the present benefits that the economy of Kazakhstan may provide to international investors, as well as the chances for investment and competitive advantages that Kazakhstan has in contrast to other nations. Defining the challenges that foreign direct investment (FDI) might face, including flaws in the political and legal institutions, the banking sector, and corruption, is obviously going to be very significant.

1 Objectives and Methodology

1.1 Objectives

The objective of the thesis is to identify how Foreign Direct Investments impact the economic development of Kazakhstan. However, the author is focused on determining the relationship between macroeconomic indicators and Inflow of FDI's in Kazakhstan. There are several research questions to mention within this work.

1) What dependent is the Kazakh's economy on the Foreign Direct Investments?

2) Is there any identification of "*Dutch disease*" in the Republic of Kazakhstan?

3) How much does the volatility of the Kazakh's currency impact the FDI's inflow?

1.2 Methodology

Before making any analysis, the author has to consider the DV[1] and IV[2], the author has to support the hypothesis with the theoretical background on how and what main determinants the FDI's are dependent, its development and what indicators are usually considered by such investors.

- Inflation
- GDP
- Corruption Index
- Exchange rate

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[1] DV – Dependent variable, the variable that changes because of the independent variable manipulation. It's the outcome you're interested in measuring, and it *"depends"* on your independent variable. In statistics, dependent variables are also called: Response variables (they respond to a change in another variable).

[2] IV – Independent variable is a variable that stands alone and isn't changed by the other variables you are trying to measure.

If the ***inflation rate*** in a nation is higher in comparison to rates of inflation in the country which it invests, then one would anticipate that the nation's capital account will shrink, all other things being equal. As a result of the high local inflation, consumers and businesses in that country would most likely increase their purchases of products or increase their investments in other countries; nevertheless, the country's exports to other nations and the flow of investment from foreign sources would decrease.

Dependent variables will be introduced and highlighted below:

It is reasonable to anticipate that a country's financial account will shrink, all other factors being held constant, if the gross domestic product (***national income***) of the nation grows by a larger proportion than that of other nations. Product purchase increases in tandem with the amount of real income (after adjusting for the effects of inflation). It is quite possible that some portion of the growth in consumption will reflect an increase in the demand for international investments.

There is no clear answer to the question regarding if ***corruption*** helps or hurts foreign direct investment (FDI) according to the scientific research that have been conducted on the topic. On the other hand, there has been a good deal of academic study that looked at the connection between FDI and the perception of corruption in the host country. According to one school of thought, the perception of widespread corruption can either operate as a "*grabbing hand*" or a "*helping hand*" for foreign direct investment (Jain, 2001; Aidt, 2003). Murphy et al. (1993) came up with the idea of the state being represented by a grasping hand and refined the concept.

With the use of ***exchange rates***, the monetary unit of each nation is given a value in relation to those of other currencies. This enables the purchasing of one currency with another in order to carry out transactions involving many nations. Due to factors in both the market and the government, the values of most currencies are subject to change over time. If the value of a country's currency starts to grow in comparison to that of other currencies, the country's capital account balance should fall (assuming all other factors remain same). Investments made by that nation will become more costly relative to those made in the countries that are obtaining those investments as the currencies rises.

1.2.1 Research Methodology

As the main methodological tool, the author uses LRM to identify whether the vairables are:

- Normally distributed.

The assumption behind a normality test is that the residuals of the model follow a normal distribution. It is of critical significance for putting hypotheses to the test. A linear regression model must absolutely have this criterion met in order to be valid, whereas:

H0: Residuals Normally distributed, whereas the H1: rejects the H0.

- Statistically significant

Verifying the completeness and accuracy of the initial dataset is what is meant by the term "validating the data." Validation may be carried out in a variety of different ways, depending on the parameters or objectives of the target. Validating the accuracy of the data is a part of the process of data purification. The model verification will be evaluated at **5%** significance level over the course of this thesis.

- Lack of multicollinearity

A statistical notion referred to as multicollinearity describes the situation in which many variables in an explanation model are correlated with one another. When two variables have a correlation degree that is *+/- 1.0*, it is stated that the variables are completely collinear with one another. As a consequence of multicollinearity between the variables that explain something, statistical judgements will have a lower degree of credibility.

- Heteroskedasticity

Heteroskedasticity, also known as heteroscedasticity, is a phenomenon that occurs in statistics when the standard deviations of a predicted variable are not consistent when it is observed across changing values of an independent variable or in relation to earlier time periods. Visual examination of the residual errors should reveal the presence of heteroscedasticity problem if one looks for a pattern in which the mistakes have a tendency to spread out with time.

2 Theoretical Part

This chapter is dedicated to the theoretical background of the Foreign Direct Investments, how exactly it could improve economic conditions and what advantages and disadvantages it brings with its capital expansion. As by the definition, Foreign direct investments could be classified in two categories, internal and external.

2.1 Types of Foreign Direct Investments

External foreign direct investment, also known as "direct investment abroad," is typically backed by the regional government due to the benefits it will bring to the country. One of these benefits is foreign exchange, which will assist the country in maintaining a balance of payments in its international trade. Usually, government subsidizes these businesses by providing financial incentives in the way of tax deductions. These breaks lower the overall cost of doing business and increase the profitability of the investment, all without cutting into the enterprise's profits. When businesses in a foreign country are given preferential treatment by the governments of their home countries, they gain a competitive advantage against foreign direct investment (FDI) in that country. This advantage comes in the form of government aid and protection from financial loss.

Internal FDI is encouraged by the host country in a variety of ways, some of which would include provision of subsidies, the removal of trade or investment barriers that make it difficult for foreign investors to conduct venture, the reduction of interest rates on borrowings that are made available to foreign investors, and the provision of tax deductions (Sukhoruchenko, 2020).

A kind of international capital mobility known as foreign direct investment, or FDI, represents the long-term involvement and management maintained by a resident of one country over a residential firm headquartered in a different nation. FDI is an abbreviation for "foreign direct investment." Several nations throughout the globe have a motivation in proactively luring foreign direct investment (FDI) into their industries in attempt to upgrade already current businesses, establish businesses, maintain a balance of payments, and raise the economy's

competitive edge. When making direct investments into the economy of a given nation, foreign investors are, of course, also influenced by a variety of different goals and aspirations. Entrance to international marketplaces and accessibility to foreign resources are the two primary drivers of foreign direct investment (FDI), if we take the concept of FDI in its broadest sense possible. The two types of investments that correlate to it generally often referred to as market-oriented (horizontal) and resource-oriented (vertical). (Marcusen, J., and Helpman, E., 2008) were the ones who discovered and researched these various forms of FDI in their respective publications.

2.2 Classifications of Foreign Direct Investments

2.2.1 Greenfield investments

When foreign businesses increase their overall capital or set up new manufacturing facilities mostly in host nation, these investments are known as greenfield investments. Regarding host nations, greenfield investments are a particularly favourable kind of foreign investment, particularly if lowering high unemployment is the major objective. The focus of a host country's marketing initiatives is greenfield investments since they provide new productivity level, employment, transfer knowledge and skills, and may result in connections to the international marketplace. Greenfield FDI often increases efficiency and produces new employment in regard to human capital. While the receiving state welcomes greenfield investments, it ought be noted that they could displace local businesses and certain specialized sectors (particularly those dependent upon technology). Although local businesses often reinvest their profits in their home markets, this is not necessarily the case for international businesses making greenfield investments. In the case of Kosovo, this sort of FDI or comparable sub-types are most welcomed due to the country's substantial unemployment rate.

2.2.2 Merger & Acquisition Investments

Mergers and acquisitions (M&A) are often carried out when existing businesses are transferred by domestic companies to international companies. In other words, a new legal company is created by combining all operations and assets of businesses from many nations. It is presumable that there are less options for M&A conduct in nations with lower levels of development. In contrast to greenfield investment, M&A, as refer IPAK's 2012 Annual Study

on Perception of FDI, "provide no long-term advantages for the regional economy, since in the majority of agreements the owners of the local firm are compensated in shares from the acquiring company, meaning that the proceeds of the sale could never reach the local economy". Increased employee productivity is the advantage of this sort of FDI that is most often stressed, however there is little evidence to support additional employment. The results of empirical investigations in this area are ambiguous and conflicting.

2.2.3 Joint Venture Investments

A local business, the administration, or a foreign corporation doing business in the hosting region may all participate in joint ventures. A cross-border strategic partnership involves at least two nations' worth of economic actors. Technical spillover is a good human capital spillover, particularly when there is a mix of foreign and local businesses. One of the key elements "influencing the feasibility and profitability of cross-border joint ventures includes the choice of partner and reciprocal trust between partners," claim Dunning and Lundan (2008). Joint ventures are motivated by a variety of variables and goals other than profit. The development of joint ventures is influenced by nine elements, including economies of scale, market size, economies of scope, technical ambiguity, technological progress, cultural barriers, rate of interest, autonomy protection, and the absence of patent rights, according Casson's model (Casson, 2009). In contrast to transitional and underdeveloped nations, industrialized nations place a different emphasis on human capital development in joint ventures.

2.3 Theoretical background in regards of FDI and economic growth

There have been several attempts made by researchers to investigate the link between FDI and GDP growth rate. Several researchers have shown that there is not always a positive association among foreign direct investment and economic growth. Moreover, Saltz (1992) demonstrates that foreign direct investment (FDI) may boost not just the total level of investment and effectiveness but also the pace of economic development. To support his findings, Saltz (1992) conducted research on the link among foreign direct investment (FDI) growth rates on a survey of numerous countries that were classified into two groups depending on the quantity of FDI they attracted. He concluded that there continues to be a negative link among both foreign direct

investment (FDI) and economic development in industrialized nations that have lifted limits on the repatriation of benefits.

In contrast, research conducted by Borensztein, De Gregorio, and Lee (1998) examined the effect foreign direct investment had on the rate of economic development in 69 developing economies. This study discovered a strong relationship between the growth rate and FDI and demonstrated that the contribution of FDI to economic development is dependent on the ability of the host nations to absorb new technologies. Also, there is a strong emphasis placed on the need of balance among FDI and human capital.

Zhang (2001) and Choe (2002) investigated the relationship between foreign direct investment and economic development (2003). Zhang makes use of data gathered from 11 developing nations located in East Asia and South America. Using cointegration and Granger causality analyses, Zhang (2001) came to the conclusion that foreign direct investment (FDI) boosts economic development in five out of seven scenarios. Nevertheless, variables in the hosting country, such as the trade regime and macroeconomic stability, are crucial. According to the results of Choe (2003), there is minimal evidence that FDI generates growth in the host nation. Nevertheless, there is a predisposition toward progress that causes FDI. Causality between economic growth and FDI runs in either way, yet there is a bias towards growth that causes FDI. Fast economic boom may be accompanied by a rise in the amount of foreign direct investment (FDI) received.

Chowdhury and Mavrotas (2003) conducted supplementary research that investigated the causal connection amongst foreign direct investment (FDI) and economic development. The researchers used a sophisticated econometric method to investigate the chain of causation that links the two variables. The analysis includes time series data covering the period from 1969 to 2000 for the multiple emerging economies of Chile, Malaysia, and Thailand. All 3 of these geographic areas are sharing similar amount of foreign direct investments (FDIs), but their histories of macroeconomic phenomena, policy regimes, and growth trends are distinct from one another. Their evidence-based study showed that, in the case of Chile, it is GDP that induces FDI and not vice versa, despite the fact that there is good evidence of bi-directional correlation

between the two factors for both Malaysia and Thailand. In every one of these countries, however, the relationship between GDP and FDI is positively correlated with economic growth. The robustness of the conclusions has shown through the implementation of a granger causality test, which was employed to evaluate the correctness of the result.

Bengoa and Sanchez-Robles (2003) conducted an additional test with the use of time series dataset for Latin America. This analysis evaluated the link between foreign direct investment (FDI), economic freedom, and economic progress. Researchers indicated that foreign direct investment has a major positive impact on the economic development of the host state, but the intensity of such an effect is dependent on the situations of the host state, comparable to Borensztein et al (1998) findings. They arrived at this conclusion by comparing assumptions of fixed and random effects.

Carkovic and Levine (2002) employed a panel dataset that included 72 emerging nations in order to investigate the connection between foreign direct investment (FDI) flows and economic progress. In this study, a cross-sectional OLS analysis as well as a dynamic data set evaluation both are carried out with the use of GMM. The findings of this study indicate that there is no strong association among domestic FDI and economic expansion in the nation that is being studied as the hostess.

2.4 Theoretical background of inflation in relation to FDI

An open issue that has not been solved as of yet is presented here in the shape of an equation that clearly establishes the impact which inflation has on foreign direct investment (FDI). By adding money via savings limitations, such as in Lucas's model, one can also accurately depict the true impacts of inflation. In this model, inflation in the home country acts as a tax on labour supply and domestic investment, while inflation in the host country acts as a tax on foreign direct investment (FDI). This occurs through a method that is comparable to that described by Stockman (1981) and Aschauer and Greenwood (1983), during which revenues generated by utilizing funds are given access later, during which inflation erodes the real value of these nominal values. The model illustrates, in the most general way available, that domestic and foreign inflation have an effect not just on home capital but also on investment made abroad.

By shifts in the agent's pattern of intertemporal spending, a rise in the rate of domestic (foreign) inflation leads to an increase in the level of domestic (foreign) investment. The rise in current consumption that inflation brings about is a direct reflection of the overall cost of various investment options. Inflation at home drives up consumer spending, which brings down the price of foreign direct investment. A similar phenomenon occurs when there is a rise in inflation in a foreign country; this causes the costs of local investment to decrease, which in turn redirects investment away from the foreign economy and into the home sector. This process demonstrates that companies adjust overall level of investment in response to shifts in inflation as a method of flattening out their investment.

2.5 Theoretical background of "exchange rate" in relation to FDI

Russ (2007) has published an article in which he models variability among enterprises. In this article, he creates a model that takes into consideration the causality of exchange rates as well as the activities of foreign businesses. While this analysis focuses on the effects of inflation rate processes, Russ's (2007) work focuses on the effects of unpredictability of exchange rates. Therefore, the model is applicable for such ongoing investigation because it reinforces the influence that monetary policies have on the investment decision of the multinational enterprise. As a result, it is possible to see the investigations as being complimentary parts of the examination of the influence that macroeconomic events have on the investment choices made by MNEs. The present study uses cash-in-advance (CIA) limitations to inject time delays into the investment decision-making process of MNEs. Meanwhile, sunk costs and nominal rigidities are the primary factors that determine the outcomes in Russ (2007).

The long-term manufacturing costs are significantly impacted by the exchange rate fluctuations. In addition, investors become less hopeful about the economy of the host nation when there is a spike in volatility. To put it another way, a rise in volatility brings to an increase in the risk connected with the anticipated returns on the investment (Cushman, 1985). Many empirical investigations have been done to investigate the connection between FDI and shifts in exchange rates, looking at the link in terms of both the level and the volatility of the exchange rates. Several of these studies have additionally incorporated the impacts of exchange rate

expectations. One school of thought maintains that a rise in the value of a country's currency benefits foreign investors financially. When compared to local investors, purchasing local businesses is less expensive for them. According to research done by Baek and Okawa in 2001, a higher yen in comparison to the dollar and other Asian currencies encourages Japanese companies to make FDI investments in Asian countries. Cushman (1985) examined the connection among foreign direct investment and various currency rates in a variety of contexts. In one scenario, a rise in the value of the domestic currency attracts more foreign direct investment (FDI), whereas in the other scenario, it makes FDI less attractive. According to the findings of Benassy-Quéré et al. (2001), foreign direct investment is negatively impacted when exchange rates are volatile.

2.6 Theoretical background of "Corruption" in relation to FDI

In this view, corruption is synonymous with the larger bad impacts that come with having an industry that seeks to profit off rent, which drives up transaction costs in an economy. These fees may be incurred rather of spending time gathering information about partners and the dynamics of the market. In addition to the transaction costs, corruption results in significantly greater costs for society as a whole in the form of economic inefficiencies brought about by corrupt officials in an effort to obtain payoffs for themselves. The economy may be distorted in a number of ways, including via ineffective privatization and government contracts, through the postponement of production, by the granting of licenses to low-quality products and services, and through illicit operations. In addition, corruption may result in the transfer of a major portion of a country's wealth to corrupt officials in the form of inflated contract prices. This can happen when the pricing of contracts are negotiated in a fraudulent manner. These substantial expenditures need to be recovered in the future by an increase in taxes and a reduction in spending (Ackerman and Palifka, 2016).

Yet, corruption may also serve as a "*helping hand*" to encourage the flow of foreign direct investment (FDI). When it takes the place of ineffective government, corruption has the potential to boost economic growth (Houston, 2007). The efficient grease hypothesis serves as the foundation for this argument. It's possible that bureaucracy's inherent inefficiencies may be

addressed by the "greasing the wheels" approach that corruption takes to economic activity. Despite the fact that the vast majority of research indicate to the unfavourable impacts of corruption, a few research demonstrate that the theory is correct (Sadig, 2009). These types of research don't really advocate for such continuation of corrupt practices, instead advocating the improvement of the legal and institutional frameworks of the nations in concern. According to the findings of a cross-sectional research on this topic that was carried out by Sadig (2009), there is a significant negative relationship between perceived corruption and FDI in 117 countries. In addition, Habib and Zurawicki (2001) analysed the influence of systemic corruption on foreign direct investment in 111 different countries. They discovered that the negative effect of perceived corruption on FDI is far more important than its impact on domestic investment.

According to Egger and Winning (2005), there is a link between reported levels of corruption and foreign direct investment (FDI) in a sampling of 73 industrialized and developing countries for the period of 1995–1999. These findings imply that institutional rules and bureaucratic discretion are used to facilitate the participation of governmental leaders in the distribution of earnings through foreign direct investment (FDI). Later, however, Egger and Winning (2006) take into consideration a longer time span (1983–1999) and discover that its bad effect of perceived corruption on FDI surpasses overall favourable impact on FDI. This quantitative research conducted by Bellos and Subasat (2012) reveals that perceived corruption hasn't really stopped, but rather attracted, multinational corporations to join chosen transition nations throughout the period of time spanning 1990–2003.

2.7 FDI in Central Asia

The Central Asian republics successfully implemented government initiatives, facilitation, and foreign investment attraction programs in a variety of areas. By 2018, Investment from emerging projects reportedly surpassed 113 billion dollars in Central Asia since 2008 (Kazakhstan accounted for 70%, Uzbekistan for 16%, Turkmenistan for 8%, and the Kyrgyz Republic and Tajikistan for less than 6% of this total) (Abdimomunova et al., 2018). Foreign direct investment has immense cultural and financial advantages and mostly promotes innovation in technology, the development of human capital, and growth in global commerce. By increased tax income and ethical business practices, FDI also helps to improve the social and ecological situations. Due to a number of "hard" and "soft" infrastructure issues, including oligopolies, insufficient competition, long travel distances, protracted transportation delays, border crossings caused by ineffective customs and border control monitoring, bribery, a weak judicial foundation, and restricted opportunities in the international marketplace, the business climate in the region is not very favourable for venture capitalists. Initiatives were progressively implemented to improve the environment for investment. To lower obstacles and boost the effectiveness of cross-border commerce, Kazakhstan, Russia, and Belarus created a customs union in 2010. (Asian Development Bank Institute [ADBI], 2019). The Eurasian Economic Union was established by Russia, Armenia, Belarus, and Kazakhstan in January 2015. After 8 months, Kyrgyzstan joined. Most recently, this collaboration of 183 million people inked a deal with China that strengthens economic ties between the area and the Belt and Road Initiative and bigger trade markets (Remyga, 2018; Bolteu, 2019).

In order to entice higher investment into the area, the legislative climate in the area has to be made more hospitable to the growth of a market economy via the implementation of modifications to its lawful system. A transition toward production and products that add value may create a more diversified revenue stream and lessen reliance on a relatively limited number of businesses for investment and development. To supplement the region's existing supply and exports, particularly in terms of raw materials and commodities, Central Asia will need substantial developments in agricultural, agri-tech, and food security. Wheat in Kazakhstan and cotton and vegetables in Uzbekistan are the only exceptions to this rule. Kazakhstan has

established itself as a frontrunner in the race to transform its economy from that of a low-income nation into that of a high- or middle-income one. Kazakhstan placed 25th in the World Bank's Doing Business Report 2020 and first in the Protection of Minority Investors Index after implementing cultural and financial changes in recent years. As a result of these improvements, the country received $4.7 billion in foreign direct investment in 2017. (Index Economic Freedom, 2019). Its state is now tasked with maintaining adequate monitoring of the bureaucracy, which is hampered by bureaucratic system, as well as maintaining a financial climate to enable the intake of foreign investment, which will support a modern facilities climate. Kazakhstan has received 70 loans totalling 7.4 billion dollars in value because it became a member of the Asian Development Bank (ADB) in 1995. These funds have contributed significantly to the country's economic growth and development (Asian Development Bank [ADB], 2019). Such financing has contributed to the country's and nation's economic sustainable economic development, and the Asian Development Bank is still investigating prospects for direct investment in the form of public-private partnerships and projects in the private sector (Asian Development Bank [ADB], 2019). Nestled between major economies like China, Russia, and India and serving as an important transport and commodity component of the Belt and Road Initiative (BRI), the Central Asian region is well for extra investment from abroad and growth if its authorities confront the inefficiencies that are weakening investment.

Table 1: Ease of doing business in CA countries.

Country	Rank	EODB score	of Reforms
Kazakhstan	25	78	3
Uzbekistan	69	69.90	4
Kyrgyz Republic	80	67.85	3
Tajikistan	106	57.11	3
* Ranked out of 190 countries worldwide.			
* Score is taken as a level of public sector corruption (0 – highly corrupt, 100 very clean).			

Source: Own processing.

3 Empirical part.

The empirical part is devoted to the analysis of the Republic of Kazakhstan. Firstly, the author considers the economic background of Kazakhstan.

3.1 Counties profile

Kazakhstan is distinct compared to the other nations that constitute Central Asia throughout many characteristics. It possesses the by far most economic strength for $ 13,500 as a result of that its gross domestic product per capita is the greatest in the world. According to the World Bank's classification, it is just on the cusp of being able to be considered a high-income nation, since it is very close to reaching the level of Russia. Although since beginning of the twentieth century, the economy of Kazakhstan had expanded through an annual average of 7.8 percent, which is more than twice as quick as the expansion of the economy of the whole world. Kazakhstan is considered a medium-sized nation in terms of its land area, despite having 17 million people living there. Yet, it is a significant participant on the international stage, as it holds the ninth place globally in this category. The country has a dominant position as the biggest nation in the Central Asian region.

Table 2: Economic indicators of Kazakhstan

Indicator	Measured in
GDP in 2021	197.1 billion USD
GPD per capita 2021	12 584 YSD
Labour Force	9.7 million
Unemployment	4.9 %
Total Export Value	36,5 billion USD
Total Export commodities	Crude petroleum (54 %) Metals (17 %) Other minerals (11.5 %)
Inflation	7.9 %
Main export partners	Italy (20 %), China (14 %) and Netherlands (11 %)

| Official currency | Tenge – KZT (USD/ KZT – 450). |

Source: Own processing, based on World Bank (2023).

The nation ranks among the 10 nations that produce the hardest coal and has significant quantities of the mineral. To speak in terms of mathematics just, the known coal reserves will be sufficient for roughly three centuries. Moreover, Kazakhstan is the most significant seller of uranium in the world, accounting for almost one 1/3 of the market share. Moreover, there has been a consistent rise in the amount of uranium produced. In addition, a wide variety of metals, including iron, copper, chromium, aluminium, cadmium, zinc, titanium, granite, and silver, are extracted from the earth by mining. Kazakhstan is consistently ranked among the top 10 countries worldwide in terms of production of various metals. Also, the nation has a significant untapped potential for rare earths. The nation of Kazakhstan is the one in Central Asia that maintains the most robust economic relations with Europe. After both Russia and China, Germany has already established itself as the third largest foreign trading partner. In 2013, Germany was the destination for 8.1 percent of all Kazakh exports. The European countries of France and Italy are also significant purchasers of raw resources from Kazakhstan. Germany also came in third place for Kazakh imports in 2013, achieving this position with a share of 6.3 percent. The state of Kazakhstan's finances area in a healthy position. Over the course of many years, surpluses have been developed because of the cash earned from the export of raw materials. These surpluses are deposited into an oil fund. This totalled 77 billion United States dollars, which is equivalent to a percentage of the gross domestic product equal to 35 percent. Because the national debt is just 13 percent of the country's GDP, the country does not have a deficit budget. On the other hand, the business sector has a rather high level of external debt, partly because of the substantial expenditures made over the course of the last several decades. This, in conjunction with the regarding the high degree of dependence mostly on pricing of its raw materials, constitutes a certain vulnerability for the country. The three largest financial institutions provide both an investment grade rating to Kazakhstan and financial loans, making it the sole nation in Central Asia to have such a score. Kazakhstan, together with Russia and Belarus, was one of the founding members of a customs union that went into effect in the year 2010. A further stage of integration has now been agreed upon: the beginning of the Eurasian

Economic Union is scheduled for early 2015. First and foremost, it provides Kazakhstan with access to the massive market in Russia. Because Kazakhstan has already reached a certain degree of economic success, the country is making efforts to foster the growth of industries other than the mining industry. The Ease of Doing Business Index published by the World Bank has shown that the enabling environments for businesses have been easier to navigate over the last several years, which corresponds to this trend. The year 2013 saw Kazakhstan move up to the 50th position out of 189 nations. It is in a far better position than many other Central Asian nations and is 42 places ahead of Russia.

3.2 Economic Impact due to Covid – 19, in numbers

The worldwide epidemic of COVID-19 has had a major and negative influence on the economics of the nations that make up Central Asia. The restriction actions taken regarding coronavirus resulted in a decline of 49% in the amount of foreign direct investment (FDI) throughout the globe during the first half of 2020 as comparing to the relatively similar time in 2019. The volume of trade has taken a significant hit, increasing strain is being placed on health care systems, and consumption and investment levels are taking a dramatic plunge. The recession is influencing significant aspects of the regional economy, including as the remittance sent back by labour migrants, the export of oil and minerals, and the service sector. The relatively low degree of investment of production and exports, along with the massiveness of the informal sector of the economy in several countries, only serve to make the challenges that governments face when attempting to combat the recession by putting strain on federal finances even more challenging. Most of the nations in the area have started to relax their quarantine regulations, which is one of the significant actions that the governments of the countries in the region are adopting to offer liquidity to families and companies.

Kazakhstan was affected by the COVID-19 crisis in two ways: first, via the consumption path, because of countrywide and worldwide isolation; and second, through the income channel, as a result of a steep reduction in oil and gas prices. It is anticipated that the gross domestic product decreased by 3% from January to August of 2020, investment decreased by 5.2%, and inflation increased because of supply interruptions as well as devaluation of the currency. According to

official figures, the unemployment rate increased by 0.6 % to 4.7 % in June, whereas analysts had anticipated that the rate would grow to nearly 6 % by the end of 2020. Even though a little rebound in recovery is anticipated for the year 2021, Kazakhstan's economy remains at the risk of experiencing additional downturn. circumstances of sanitation that have the potential to adversely influence both business and employment (World Bank, 2020; OECD, 2020). According to the most recent available figures, the assistance programs have been responsible for the direct income of around 4.6 million individuals and the employment of more than 810,000 people up to this point. As of the month of September, banks had extended financial assistance loans to SMEs in the amount of 160 billion KZT (376 million US dollars), while more than 1.6 million individuals and 10 700 Companies had been granted postponed loans (about 360 billion KZT or 840 USD million). More than 255 000 businesses and individuals who started their own businesses have benefitted from tax relief (World Bank, 2020). During the COVID-19 crisis, the DAMU Foundation on its own funded approximately 7,000 entrepreneurial ventures with a combined sum of 566 billion KZT, which is equivalent to $1.5 billion.

3.3 Data and methodology

This section of the research included a summary of the statistical approaches, data types, and sources that are utilized in the process of calculating the factors that influence levels of FDI's inflow in Kazakhstan.

3.3.1 Variables of the study and data analysis

All variables are mentioned in the *Chapter – 1.2*. The data analysis is also mentioned in the *Chapter – 1.2.1*. However, here, the author mentions the detailed test that will be used for the stated tests.

There are 5 variables to consider in this research. There will be two models of Single Linear Regression and Multiple Linear Regression models to analyse the relationship between Foreign Direct Investments (**DV**) in relation to Inflation rate (**IV$_1$**), Exchange rate (**IV$_2$**), Corruption Index (**IV$_3$**) and see how those independent variables contribute to the FDI's inflow. The theoretical part represented different opinions in terms of correlation analysis of the mentioned

analysis, however, the author particularly interested in knowing how (**IV$_{1,2,3}$**) impact on the FDI's (**DV**).

3.3.2 Model specification

Saltz (1992) demonstrates that foreign direct investment (FDI) may boost not just the total level of investment and effectiveness but also the pace of economic development and its GDP level, hence the author might assume that there is a positive correlation between the FDI's inflow and GDP growth.

$$GDP = f \, (FDI's \; inflow)$$

$$GDP_t = \beta_0 + \beta_1 FDI's_t + E_t.$$

GDP – Gross Domestic Product in billions USD

FDI – Foreign Direct Investment Inflow in million USD.

t – Time period (2000 – 2021).

E – Error Term.

Table 3: Descriptive statistics of FDI's in relation to GDP

Descriptive Statistics

|	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
GDP on billions USD	22	18292	236644	129644.09	71333.871	-.334	.491	-1.283	.953
Inflows of FDI in million	22	3530	288141	138467.41	92098.156	.060	.491	-1.641	.953
Valid N (listwise)	22								

Source: Own processing, SPSS IBM.

Based on the descriptive statistics where GDP is being as a dependent variable and the Foreign Direct Investments Inflow was run as an independent variable. There were 22 years of observations. The minimum inflow of FDI's is registered as 3530 million USD and the maximum is 288 141, it could already indicate the instability in regards of the Inflows.

Normality test for GDP

We must make sure that our residuals are normally distributed, the author plans to use the following procedure.

Table 4: Test of Normality
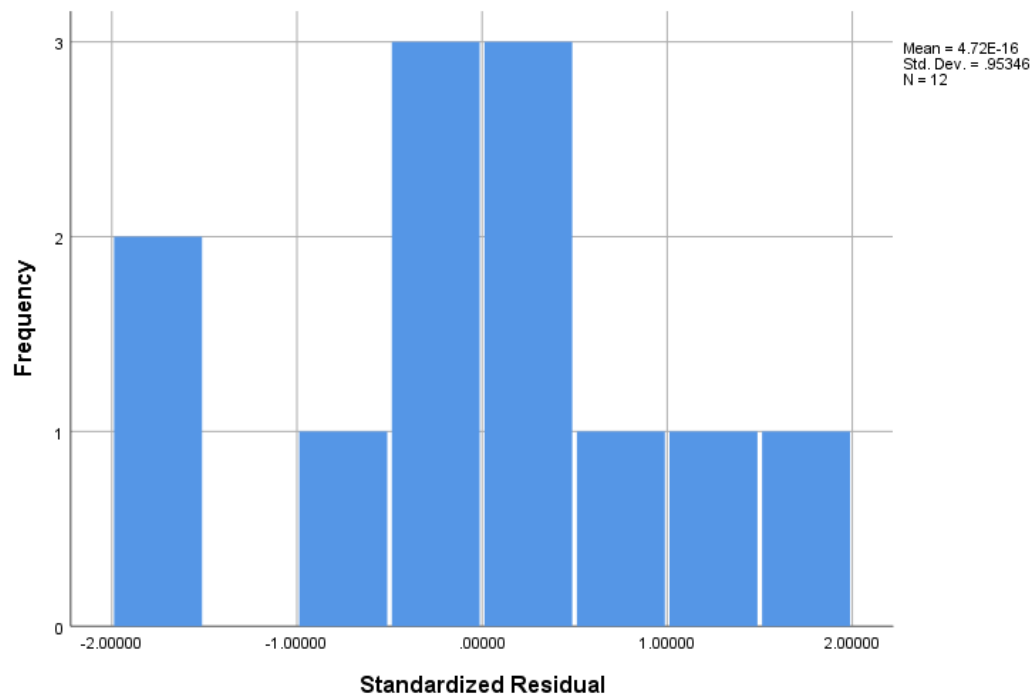
> Source: Own processing, SPSS IBM.

Based on the test of normality for "Standardized residuals" we could see that the mean is close to 0, as well as Standard Deviation, meaning that the residuals are slightly skewed to the left side, however, the author could accept the fact, that residuals are normally distributed. Hence, the author might carry – on with the statistical procedures.

3.3.3 Simple Linear Regression Model output

The estimation of the regression was mostly done with the help of Simple Linear Regression. The OLS method was used to identify the correlation.

Table 5: Coefficients of the model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	70578.264	23872.064		2.957	.008	20782.011	120374.517		
	Inflows of FDI in million	.427	.145	.551	2.951	.008	.125	.728	1.000	1.000

a. Dependent Variable: GDP on billions USD

Source: Own processing, SPSS IBM.

Based on the results of the coefficients, the model is:

$$GDP_t = 70578,26 + 0.427*FDI's_t.$$

The results demonstrate a positive relationship of the model, meaning that if there is an increase by 1 % in the Inflow of GDP, the GDP growth rate will increase by 0.427 units. The significance of the p – value of the (DV) is .008, which is lower than the .05 alpha level.

Table 6: Correlation analysis

Correlations

		GDP on billions USD	Inflows of FDI in million
Pearson Correlation	GDP on billions USD	1.000	.551
	Inflows of FDI in million	.551	1.000
Sig. (1-tailed)	GDP on billions USD	.	.004
	Inflows of FDI in million	.004	.
N	GDP on billions USD	22	22
	Inflows of FDI in million	22	22

Source: Own processing, SPSS IBM.

The correlation between those two variables is positive and equals to 55 %. However, the correlation demonstrates rather weak roots between those two variables, as the model and its R – Square equals to 0.24 %. Which indicates that our dependent variable is explained by the independent variable by 24 %.

31

Table 7: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.241E+10	1	3.241E+10	8.707	.008^b
	Residual	7.445E+10	20	3722374207		
	Total	1.069E+11	21			

a. Dependent Variable: GDP on billions USD

b. Predictors: (Constant), Inflows of FDI in million

Source: Own processing, SPSS IBM.

3.4 FDI's in relation with Inflation rate, Exchange rate and Corruption Index.

This part will be devoted to see the correlation analysis between FDI's inflow as (DV) and the Inflation rate (IV), Exchange rate (IV) and Corruption Index (IV). The theoretical background and its relations were covered in *Chapter – 3.4, 3.5 and 3.6.*

$$FDI's = f\,(Inf,\,ER,\,CI)$$

$$FDI's_t = \beta_0 + \beta_1 INF_t + \beta_2 ER_t + \beta_3 CI_t + E_t.$$

FDI's Inflow – Millions of USD

Inf – Inflation rate (%).

ER – Exchange rate (USD TO KZT, annual data)

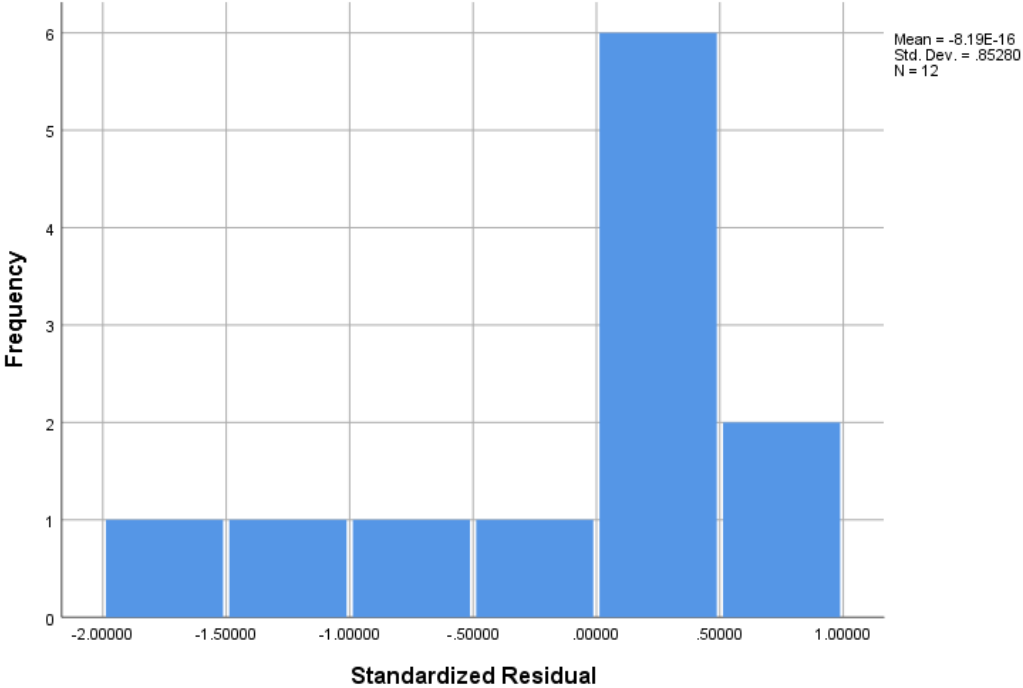*Corruption Index – from 1 to 100, whereas (100 is **very clean** and 0 is **highly corrupt**)*

B_0 – Intercept term.

t – Time period (2010 – 2021).

E – Error Term.

Test of Normality for FDI's Inflow

Table 8: Normality test for FDI's inflow

Mean = -8.19E-16
Std. Dev. = .85280
N = 12

Source: Own processing, SPSS IBM.

The test for Normality distribution of residuals has been failed. See **Table – 8. The residuals are skewed to the right side.** However, based on the

3.4.1 Multiple Linear Regression Model

The author has run a multiple linear regression model that looks in the following way:

Table 9: MLRM

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	725197.209	258857.233		2.802	.023	128271.360	1322123.058		
	Inflation rate	-10550.095	14142.500	-.159	-.746	.477	-43162.758	22062.568	.748	1.337
	Exchange rate	-346.780	298.499	-.401	-1.162	.279	-1035.119	341.558	.286	3.501
	Corruption Index	-12463.140	8840.629	-.481	-1.410	.196	-32849.668	7923.388	.292	3.422

a. Dependent Variable: Inflows of FDI in million

Source: Own processing, SPSS IBM.

The model can be expressed in the equation form like this:

$$FDI's_t = 725197,209 - 10550.095_t - 346,78_t - 12463.14_t.$$

The model demonstrates the negative relationship of all independent variables in relation to the dependent variable, meaning that, if the inflation rate increases by 1 %, the FDI's inflow will decrease by 10 500, followed with the same logic for the exchange rate, if an exchange rate will increase by 1 %, the FDI's will decrease by 346, and the Corruption Index had contributed in a negative way towards the FDI's inflow, if it increases by 1 % ,the FDI will decrease by 12 463.

However, if each variable is considered individually. All variables seem to be insignificant in the model. However, the author bases his conclusion of **F – test**, which is shown **Table – 10**.

The F – test for the whole model equals to .012, which is lower than p – value of .05 %, meaning that the model is statistically significant. All variables contribute to the dependent variable. Its **R – Square** equals to .72, which means that the dependent variable is explained by independent variable by 72 %.

Table 10: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	.853[a]	.728	.626	60998.682	.728	7.129	3	8	.012	1.879

a. Predictors: (Constant), Corruption Index, Inflation rate, Exchange rate

b. Dependent Variable: Inflows of FDI in million

Source: Own processing, SPSS IBM.

Table 11: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.957E+10	3	2.652E+10	7.129	.012^b
	Residual	2.977E+10	8	3720839259		
	Total	1.093E+11	11			

a. Dependent Variable: Inflows of FDI in million

b. Predictors: (Constant), Corruption Index, Inflation rate, Exchange rate
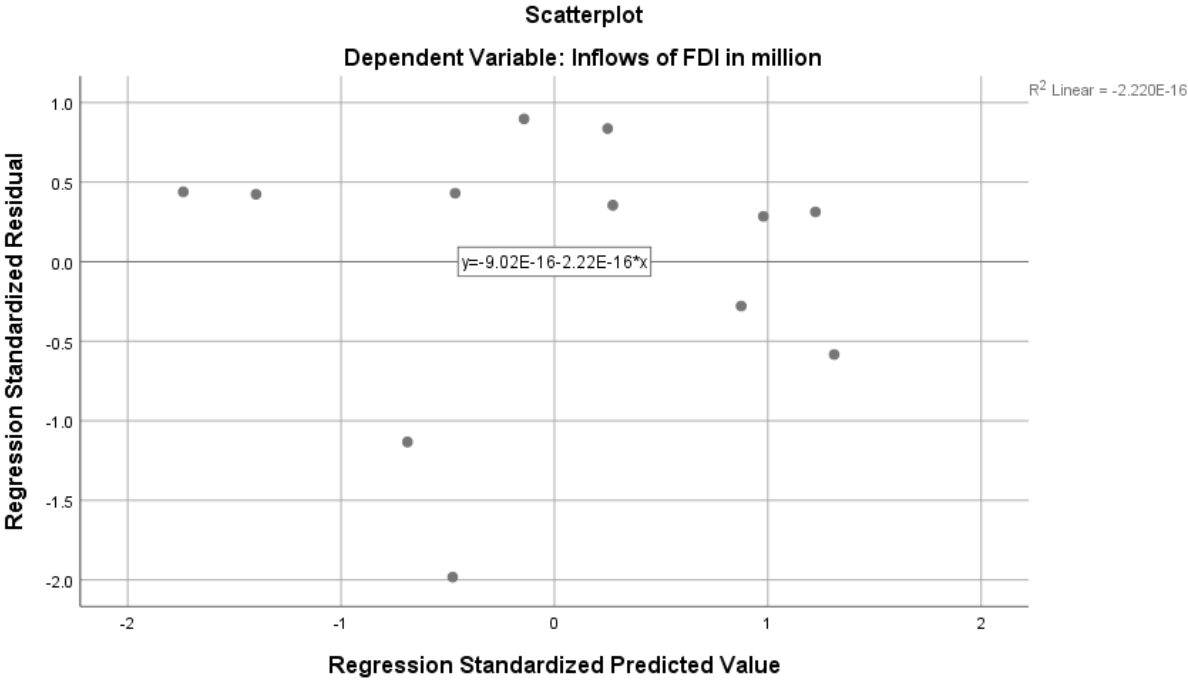
Source: Own processing, SPSS IBM.

Multicollinearity:

The author based on *"Variance Inflation Factor"* which is seen in the **Table – 9**. Based on the outcomes, the author can conclude that there is not multicollinearity present in our model as all values are less than 5.

Heteroskedasticity:

From the **Table – 12**, the author could see that the residuals are unevenly distributed, meaning that the model has heteroskedasticity roots. It is probably impossible to get rid of the heteroskedasticity in our case. The idea of having heteroskedasticity roots indicates the complexity of further prognosis. Thus, in our case we don't want to prognose further projection of the model. The author planned to identify what roots does the model have, the result is seen in the **Table – 12.**

Table 12: Scatterplot regression

Scatterplot
Dependent Variable: Inflows of FDI in million

R^2 Linear = -2.220E-16

$y=-9.02E-16-2.22E-16*x$

Source: Own processing, SPSS IBM.

4 Discussions and Recommendations

After assessing the (DV) and (IV) and their relations among each other, the author is able to answer the fist research question, how dependent Kazakh's economy on a Foreign Direct Investment?

1) What dependent is the Kazakh's economy on the Foreign Direct Investments?

Well, based on the model, the correlation between the economy of Kazakhstan and Inflows of Foreign Direct Investment is weak, however, Kazakhstan is a rich country with its natural resources. Unfortunately, since there was an insufficient amount of data, it was not able to include the element of natural resources into this investigation. My hypothesis is that this component will be one of the most important predictors of the amount of foreign direct investment (FDI) that is brought into these nations. However, when studying a relationship between Inflation as a proxy that set the prices inside the country, and hence, playing a key role in economic stability, it could be recommended to stabilize and monitor the development of inflation in Kazakhstan. With enhanced "Inflation" Kazakhstan is able to attract more investors and that would potentially lead to a greater employment rate, thus, reducing the unemployment level overall.

2) Is there any identification of "*Dutch disease*" in the Republic of Kazakhstan?

Well, Kazakhstan's economy is based on the Oil and Gas sector to some extent, after studying the research paper of Kutan and Wyzan (2015), for the presence of "Dutch disease" by using a Balassa – Samuelson model, they found a vulnerable to the "Dutch" disease was present in medium and long – term. However, based on that findings, it is certainly a good idea to diversify the economy towards technological improvement, or IT sector, as natural resources have limited capacity. Apparently, educational sector could be something to consider for a brighter future, intensive investments should also be made in the agricultural sector.

3) How much does the volatility of the Kazakh's currency impact the FDI's inflow?

The Exchange based on the modelling with its significance T, takes a second place after "Corruption index" both however, negatively impacts the FDI inflow, when any of the variables are increased by 1 %. This, however, supports the study of Yu – Chin and Rogoff (2003). Even through, their study is old, but still holds accountable to these days. It indicates a slow – pace growth of economy and according to et el., Rogoff (2003) a high dependency on oil prices, especially, when the prices for oil increases, it negatively impacts the economy of Kazakhstan.

5 Conclusion

The thesis was devoted to the topic of "Foreign Direct Investment in the Contemporary World with a Focus on Kazakhstan", with the main objective to evaluate the impact of Foreign Direct Investments Inflow to economy of Kazakhstan. Yet, the author covered a theoretical background that focused on "Classification of Foreign Direct Investments" as well as "Theoretical background of selected variables" that were studied in empirical part, such as:

- Inflation
- GDP
- Corruption Index
- Exchange rate

The author set the research questions which were also a part of the practical focus. The questions more or less are answered in the section above.

Overall, the study has confirmed that "Corruption" "Inflation" and "Exchange rate" negatively impact the Flow of FDI's, hence, impacting the economic development of Kazakhstan. The research was limited in years, from 2007 up to 2021. The recent pandemic of COVID – 19, was also described in the empirical part, in section 3.2.

All procedures were performed in the SPSS IBM 25.

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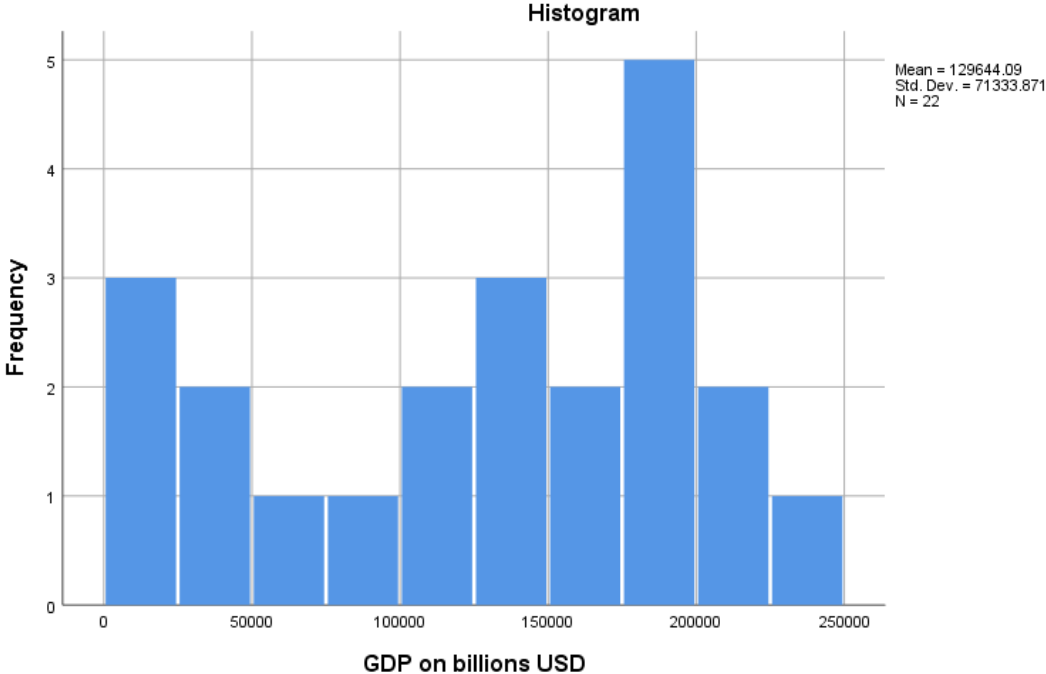
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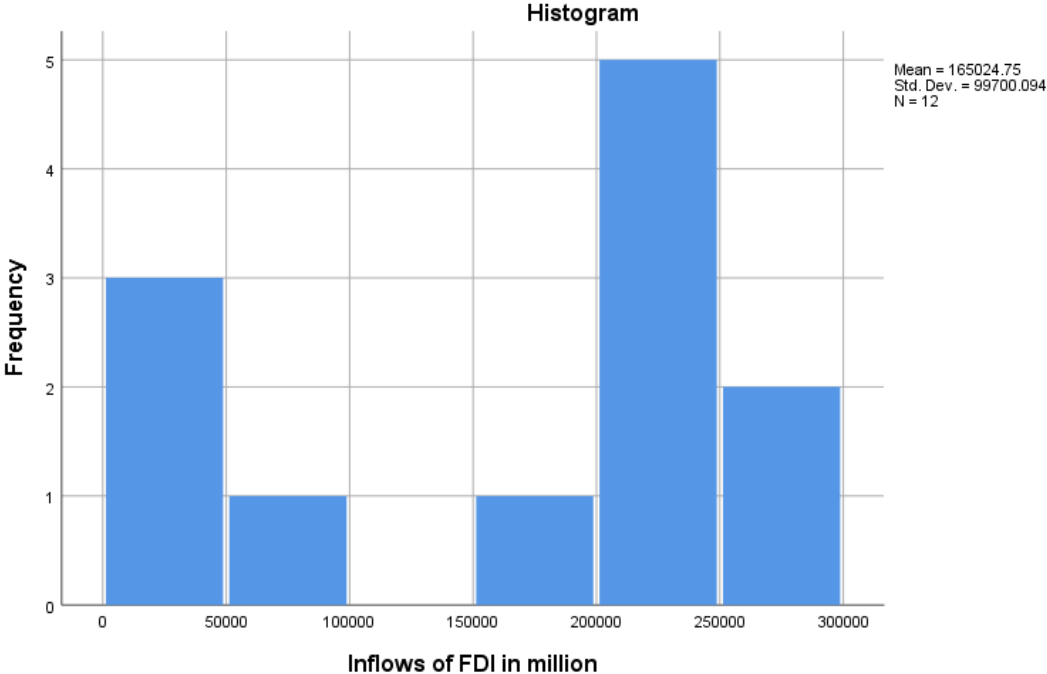
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Appendix – 1.

Own processing, SPSS IBM.

Appendix - 2

Histogram

Mean = 165024.75
Std. Dev. = 99700.094
N = 12

Own processing, SPSS IBM.