

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Diploma Thesis

**Impact of Foreign Direct Investment on Belarus
economy and economic growth**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Bc. Maksim Petrov

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Impact of foreign direct investment on Belarus economy and economic growth

Objectives of thesis

The objective of the thesis is to evaluate the foreign direct investments in the economy of the Republic of Belarus, as well as indicative routes with the identification of the investment climate. The objective will be achieved by answering the following research questions:

- 1) Is there any relationship between FDI and GDP growth in Belarus?
- 2) What are the trends of FDI flows of the Belarus economy?

Methodology

This thesis is divided into two parts: theory and practice. The first part is the literature review, which summarises theoretical findings of economic growth, GDP, describes FDI and presents an overview about types of investments, forms, and their purposes.

The practical part includes the information about the selected market, the historical development of the Belarus economy. Statistical data on FDI and GDP will be retrieved from the official sources and covers the period from 2010 to 2019. The methods used are comparison, analysis and synthesis.

The proposed extent of the thesis

60 – 80 pages

Keywords

FDI (foreign direct investment), GDP, Analysis, Import, Export, Belarus, IT

Recommended information sources

Economics, an Introductory Analysis, Paul A. Samuelson. (New York: McGraw-Hill Company, 1948)
H. Makhavikova, Determinants of FDI in Central and Eastern Europe : The Effects of Integration into the European Union (2018)
International Business – Competing in the Global Marketplace. University of Washington: Irwin McGraw-Hill.
Kronfol, Z. A. (1972). Protection of Foreign Investment
Pandya, Sonal S.. Trading Spaces : Foreign Direct Investment Regulation, 1970–2000, Cambridge University Press, 2013
Twomey, M. (2000). A Century of Foreign Investment in the Third World. London

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Declaration

I declare that I have worked on my master's thesis titled " Impact of foreign direct investment on Belarus economy and economic growth" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on March 31.03.2022

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I also want to express my support for the citizens of Belarus and political prisoners, who have suffered from political repressions.

Impact of Foreign direct investment on Belarus economy and economic growth

Abstract

The diploma thesis is focused on the impact of foreign direct investment on Belarus economy and economic growth.

The purpose of this paper is to review the possible impact of foreign direct investment on the host country. The main concept is to explain the concept of FDI, including its types, factors affecting and influencing foreign investors, an explanation of the concepts of capital flows, major investment policy changes, and capital allocation, taking into account geographical and structural issues, etc.

Additionally, in order to achieve the main purpose, the research also includes a study of its impact on the economic development of Belarus, its statistical analysis in the regional and sectoral directions. A historical analysis of the political and economic environment has also been taken into consideration.

In order to limit the breadth of the topic, the economy of Belarus will be estimated over the past two decades.

Keywords: Belarus, Foreign Direct Investment, GDP, Economic Growth, Development, Export, Analysis, Inflow, Outflow.

Dopad Přímých Zahraničních Investic na Běloruskou ekonomiku a ekonomický růst

Abstrakt

Predmětem diplomové práce je vliv přímých zahraničních investic na běloruskou ekonomiku a hospodářský růst.

Účelem práce je vyhodnotit možný dopad přímých zahraničních investic na hostitelskou zemi. Hlavním konceptem je vysvětlení pojmu PZI včetně jejich druhů, faktorů ovlivňujících zahraniční investory, objasnění pojmů kapitálových toků, hlavních změn investiční politiky a alokace kapitálu s ohledem na geografické a strukturální problémy atd.

Pro dosažení hlavního cíle výzkum zahrnuje studii jeho dopadu na ekonomický rozvoj Běloruska, jeho statistickou analýzu v regionálním a sektorovém směru. Zohledněna byla také historická analýza politického a ekonomického prostředí.

Za účelem omezení rozsahu tématu bude ekonomika Běloruska odhadnuta za poslední dvě desetiletí.

Klíčová slova: Bělorusko, přímé zahraniční investice, HDP, PZI, ekonomický růst, vývoj, export, analýza

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List of abbreviations

FDI – Foreign Direct Investment

GDP – Gross Domestic Product

OECD – Organisation for Economic Co-operation and Development

IMF – International Monetary Fund

M&A – Mergers and acquisitions

TNC – Trans-National Corporation

EU – European Union

UNCTAD – United Nations Conference on Trade and Development

bln USD –Billion of US dollars

1 Introduction

In modern economic investments, to one degree or another, the role of economic effects that affect the economic development of countries is partly involved. Attracting exclusive foreign investment (FDI) is a successful activity of the state. The presence of investments and their competent use makes it possible to ensure competitiveness, the formation of future profitability of enterprises and an increase in their prices. Refusing to attract investment means giving up future profits.

Foreign investments play an important role in the economic development of any state, regardless of the level of its economic development. They contribute to the economic growth of the host economy through a more efficient use of national resources.

Stimulation of investment activity is one of the main directions of economic development, by attracting the maximum number of investors, which is possible only if a favorable investment climate is formed in the national economy.

The Republic of Belarus is a country with a low-income economy, integrated into the world economic system at the regional and global levels. The openness of the national economy determines the participation of the country in international competition, which requires constant improvement of national production, the introduction of innovations, development of advanced technologies. The attraction of foreign direct investment (FDI) is the most effective way of technology transfer.

Through foreign direct investment (FDI), foreign investors influence not only the development of the direct investment enterprise itself but also the development of the economy of the receiving country. One of the main fields of influence of the inflow of direct recipient countries - foreign trade and payments balance of funds.

Foreign trade plays one of the most important roles in the economy of the country, as it affects the development of manufacturing and services, influences the rate of economic growth.

World practice shows that FDI can play an important positive role in the development of exports of the recipient country since the activities of foreign investors are often focused on foreign markets. In most developing countries and countries with economies in transition, foreign investors are attracted by the opportunity to reduce costs through cheaper resources (material, labor, etc.) or by increasing the efficiency of their activities.

The main features of investments are the investment of own or borrowed capital in a specific project and are not intended for the purpose of consumption, but are intended to solve long-term problems of economic and social development. Therefore, the activation of investment activity is the key to developing the economy and improving the well-being of people. The problem of investments is, first of all, the search for resources. In the recent past, the main source of investment in Belarus was funding from the state budget. With the transition to a market economy, fundamental changes took place in the economic system of the Republic of Belarus, new sources of investment appeared primarily financial resources of private capital. In-state policy, a special role is given to attracting foreign investment in priority sectors with the simultaneous provision of tax benefits and insurance guarantees, improving the system of legal regulation of foreign investment, and improving legislation.

The concept of investment has firmly entered our social and economic life. This is used by politicians, scientists, banks, executives involved in the activities of organizations. Investment activity and its state in the Republic of Belarus cover all mass media. Interest in investment issues is steadily increasing.

Currently, there is an acute issue of the lack of investment (financial) resources that are necessary for the development of the country's industry and the development of the economy as a whole, which requires the attraction of foreign direct investment, which determines the relevance of the chosen research topic.

2 Objectives and Methodology

2.1 Objectives

The main objective of this diploma thesis is to define foreign direct investments (FDI), provide descriptions of its types, forms and purposes, describe the major advantages and disadvantages as well as the FDI trends reflecting the economic growth. The case study of research on this topic is the economy of the Republic of Belarus.

The main tools of analysis relate to statistical methods of data analysis to find out the relationships between two selected indicators: GDP growth and FDI inflows. In the case of a positive relationship, it is presumed that these events are correlated with each other. Otherwise, a negative relationship would mean that there is no relationship between the two indicators.

The need for research is dictated by the insufficient level of development of a complex of scientific and practical developments that reveal the role and place of investment attractiveness in modern conditions as one of the elements of the country's investment market.

One of the problems of the Belarusian economy is an acute shortage of investment (financial) resources that are necessary for the modernization of the country's industry and the development of the economy as a whole, which requires the attraction of foreign direct investment, which determined the relevance of the chosen research topic. A historical overview of the political and economic environment of Belarus was also taken into account.

the paper will summarize results about the studied topic and provide relevant recommendations, suggestions, and proof addressing two research questions:

1. Is there any relationship between FDI and GDP growth in the Belarusian economy? If yes, how do the FDI inflows affect the economic growth of the country?
2. Are the same trends occurring in the neighboring countries, Ukraine and Russia?

2.2 Methodology

To explain the research questions, an empirical study of FDI attractiveness is required, as well as the development and evaluation of theoretical and methodological concepts about FDI and its consequences on the Belarusian economy. The paper uses official data from the

National Statistical Committee of the Republic of Belarus, IMF, World Bank, and other organizations and results of special statistical studies.

This thesis is divided into two parts: theory and practice. The first part is theoretical part, which summarizes theoretical findings of the FDI, its classifications, types and forms, determinants, major advantages and disadvantages of such types of investments, defines GDP and describes the global trends of FDI and economic growth. The practical part includes the information about the selected market, the historical development of the Belarusian economy, comparison and analysis of the statistical data on FDI and GDP retrieved from the official sources and covers the period from 2000 to 2020.

All research questions will be answered with the help of qualitative and quantitative research methods, using secondary and primary data collections.

The final part is constructed on the basis of research conducted, analyses and findings got, hence, own conclusions will be drawn and supported by scientific literature and critical discussion. As an advantage, this work is a good experience for the author measured by gaining new international experience as well as acquainting with the new topic of FDI, and expertise of FDI attraction to the Belarusian economy.

3 Literature Review

The literature review of the thesis will cover a theoretical description in the field of foreign direct investment (FDI). It also shows the basis of FDI, the way these investments influence on economic development and economic growth of the selected country.

3.1 Definition of FDI

Investments are the elements on which the economy and welfare of the state, the development of production, entrepreneurship, and business are based.

According to the OECD, a direct investor can be an individual, a group of related individuals, an incorporated or unincorporated business, a public or private business, a group of related businesses, a government body, an estate, trust, or other societal organization, or any combination of the above (OECD 2009)

Soviet economist Kurdov divided the impact of investment on the macro and micro levels. At the macroeconomic level, the importance of investments is manifested in the following areas - an increase in the growth rate of Gross domestic product (GDP); acceleration of scientific and technological progress; increasing the competitiveness of products in foreign markets; ensuring structural adjustment and sectoral balance of social production; creating jobs and solving other social problems; ensuring the protection of the natural environment; ensuring the national security of the state.

At the microeconomic level, Kudrov described like, the importance of investments is manifested in the following areas - the implementation of expanded reproduction; compensation for the depreciation of fixed assets; ensuring a stable financial condition; increasing the technical level of production and product quality; ensuring the competitiveness of the enterprise; obtaining additional profit by making financial investments; environmental protection measures (Kurdov, V. M. *World Economy* /., 2010. – 512 p.)

Investments involve the appearance of economic relations between entities interested in investment resources. These relationships represent investment demand.

Investment demand is a separate economic category that characterizes the need for all types of investors to acquire investment assets to extract income from them or the desired economic effect. Investment demand is a need expressed in monetary terms, and it is measured in terms of the amount of money invested.

Multiple definitions say that an investment is an investment of money, but not always an investment that can be made in cash, it can be represented by movable and immovable property, various financial instruments, and so on.

It is also believed that investments are long-term investments, but some investments can be short-term (for example, short-term financial investments in bonds, certificates of deposit with a circulation period of up to one year). But often there are investments of a long-term nature.

Foreign direct investment (FDI) is 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. Ownership of 10 percent or more of the voting power in an enterprise in one economy by an investor in another economy is evidence of such a relationship. FDI is a key element in international economic integration because it creates stable and long-lasting links between economies. FDI is an important channel for the transfer of technology between countries, promotes international trade through access to foreign markets, and can be an important vehicle for economic development. The indicators covered in this group are inward and outward values for stocks, flows and income, by partner country and by industry and FDI restrictiveness. (OECD, 2013)

Foreign direct investment (FDI) is the most common type of private entrepreneurial capital export that provides for efficient regulations and gives the investor direct control. There are numerous definitions of foreign direct investment, but they all strive to incorporate a home nation's ambition to acquire and control an asset in a host country. When a company invests directly in manufacturing or other facilities in another nation, this is known as a foreign direct investment (FDI). (H. Makhavikova, 2018 Determinants of FDI in Central and Eastern Europe: The Effects of Integration into the European Union p.9)

The National Bank of the Republic of Belarus (NBRB, 2010) describes FDI as a category of international investment that occurs when a resident of one country has control or a significant degree of influence over the management of an entity that is resident in another country.

Under foreign direct investment comprehend the direct participation of the investor in the choice of objects of investment and investment. Direct investment is carried out mainly

by trained investors who have fairly accurate information about the investment object and are well acquainted with the investment mechanism.

Foreign direct investment can make a positive contribution to a host economy by supplying capital, technology, and management resources that would otherwise not be available. Such resource transfer can stimulate the economic growth of the host economy (Hill, C. (2000): *International Business - Competing in the Global Marketplace*. University of Washington: Irwin McGraw-Hill.)

FDI exists, because of the high risks entailed in international technology licensing contracts and in supplier-producer contracts. FDI is the crossborder expansion of firms through the creation of foreign subsidiaries. A multinational corporation is a firm with subsidiaries in more than one country; many MNCs operate in multiple countries simultaneously. FDI overcomes the risks of international contracts by expanding the firm itself across international borders. (Pandya, Sonal S.. *Trading Spaces : Foreign Direct Investment Regulation, 1970–2000*, Cambridge University Press, 2013.)

Countries, as a rule, struggle to attract foreign investment, as their inflow leads to an increase in the country's GDP - the expansion of production, the renewal of outdated fixed assets, and access to advanced foreign technologies. The FDI indicator reflects the level of development of countries and regions, as well as the degree of interest of foreign investors in doing business in a particular state.

In the same time, companies from developed countries act as sources of FDI. The main exporters of capital in the format of direct investment are large transnational companies. They are invested in the production, construction of new factories, and branches of foreign companies, as well as in the acquisition of existing enterprises through the purchase of blocks of shares.

3.2 History of FDI

The Phoenicians, a civilization that existed from 1500 BC in what is now Israel and Palestine, are one of the first examples of foreign investment in its purest form. Ships traded with the Greeks, while Phoenicians created outposts around the Eastern Mediterranean from which they could sell the products from their countries, such as wood and textiles. These long-term outposts must be acknowledged as a permanent presence in another country.

The investment was mostly done in the context of colonial expansion in the eighteenth and nineteenth centuries. During this time, imperialist governments made unilateral investments in colonial states, which mostly focused on natural resources. (Kronfol, Z. A. (1972). *Protection of Foreign Investment - A Study in International Law*. Leiden, p. 14-16; Sornarajah, p. 19)

The world stock of FDI was estimated at \$15 billion at the beginning of the twentieth century; the United Kingdom was the greatest provider of investment, followed by the United States and Germany; on the other hand, the United States was also the largest beneficiary of FDI. By 1938, global FDI had climbed to \$66 billion, with British companies still being the leading investors. The majority of the investment was made in Latin America and Asia, with agricultural and mining accounting for a large portion. As U.S. corporations became the primary source of FDI, these trends began to alter, and manufacturing investment became more common.

While mid of 20 Century foreign investments in developing countries were primarily motivated by the extraction of natural resources and the construction of railways, these investments have increasingly been in efficiency-seeking FDI (textiles and clothing in East Asia from the 1960s, automobile industry in Asia and Latin America) and strategic asset-seeking FDI (textiles and clothing in East Asia from the 1990s) (technology activities in Singapore and Malaysia). Textile manufacturing, for example, went to underdeveloped nations like Mauritius, which had unused quotas for sale to industrial countries. (International Finance Corporation - Foreign Investment Advisory Service. (1997). *Foreign Direct Investment*. Washington, D.C., p. 12.)

As a result, developing countries have been increasingly focused on sovereign borrowing rather than encouraging foreign direct investment. In addition, many developing nations' economic growth in the late 1970s pushed policymakers to seek inward-oriented methods. After that, some nations pulled their FDI policies. FDI inflows into developing nations have decreased as a result of this response.

In the 1980s, the economy remained stagnant. Commodity prices began to plummet, industrial countries went into recession, and global interest rates rose; all of these factors combined to cause a debt crisis. Low productivity and isolation from the global economy stemmed from inward-looking and state-oriented economic policies. Many nations have begun structural adjustment initiatives to realign their economies toward the private sector,

foreign commerce, and competitiveness as a result. Reduced tariffs, a more liberalized business climate, and FDI deregulation were among the changes made. FDI flows to developing nations began to grow in the second half of the 1980s as a result of these changes. (Twomey, M. (2000). *A Century of Foreign Investment in the Third World*. London, table 3.14, p. 5)

Global FDI flows for 2020 were \$998.89 billion, down 35% from \$1.53 trillion in 2019 – the lowest level since 2005, according to the United Nations Conference on Trade and Development (UNCTAD).

COVID-19 has had the greatest impact on developed nations, with FDI flows plummeting by 69 percent to an estimated \$229 billion, the lowest level in over 25 years. The industrialized countries are responsible for around 80% of the worldwide drop.

According to the International Monetary Fund (IMF), the global economy declined by 4.4 percent in 2020, causing recession and growing unemployment in many states. Although there is a strong desire for FDI to aid struggling economies, recovery inflows may not be rapid.

3.3 Classification of FDI

Text... In the most general terms, it can be noted that there are two main motives for FDI - access to foreign markets and access to foreign resources. The corresponding investments are usually called market-oriented (horizontal) and resource-oriented (vertical). These types of FDI were identified and studied in their works by J. Markusen (Markusen, J.R. *Multinationals, Multi-Plant Economies, and the Gains from Trade* / J.R. Markusen // *Journal of International Economics*. – 1984. – No 16. – P. 205–226.)

In the case of market-oriented FDI, it refers to investments due to the fact that it is more profitable for an investor to work in a foreign market by creating his enterprise there than to serve this market by exporting his goods and services.

Lim. E(2001) referred Resource-oriented FDI to investments conditioned by profitable possession and use by the investor in the process of production of certain resources, in particular, their cost or simply the possibility of gaining access to them. By their nature, such FDI is export-oriented, as it assumes that the products produced by the investor using these

resources will be shipped abroad, primarily to the country where the investor firm operates. (Lim, E.-G. Determinants of, and the Relations Between, Foreign Direct Investment and Growth: A Summary of the Recent Literature / E.-G. Lim // IMF Working Paper. – Washington, DC: International Monetary Fund, 2001. – No 01/175. – 27 p.)

There are different types of investments. For example, investments are classified into domestic and foreign by location. Domestic investment involves a resident investing capital, while foreign investment involves a non-resident investing capital in another country.

3.3.1 Classification by the subject of investment

Actual investments- direct purchase of real capital in various forms in the form of tangible assets (fixed assets, land), payment for construction or reconstruction - investments directly involved in the production process; strategic - to create new enterprises, new industries, the acquisition of integral property complexes, etc. in other areas of activity.

Basic - for the expansion of existing enterprises, the creation of new enterprises and productions in the same area of activity as before;

current - to support the reproduction process, replacement of fixed assets, capital repairs, and replenishment of current assets;

innovative - for modernization of the enterprise, technical reconstruction, safety (in the broad sense);

financial investments- (indirect purchase of capital through financial assets) - investments in financial property, acquisition of rights of participation in the affairs of other companies, debt rights, placing money in a bank on deposit, etc. (securities; loans provided);

speculative investments (buying assets solely for the sake of possible price changes) - currencies; precious metals (in the form of impersonal metal accounts).

3.3.2 Classification by main investment objectives

Direct investment - investment in share capital for the purpose of not only profit, but also participation in the management of the enterprise, involve the direct participation of the investor in investing capital in a particular object of investment.

Indirect investment is investment of investor's capital into objects through financial intermediaries (institutional investors) through the purchase of various financial instruments.

Portfolio investments - funds invested in economic assets for the purpose of income generation and risk diversification. In the modern world investing, as a rule, occurs spontaneously and depends on the business qualities of the owner, his interests, as well as management and financial management. Depending on what goals the owner-producer pursues, a distinction is made between active and passive investments. The essence of portfolio investment involves investing in financial assets, depending on the goals and objectives of forming a particular type of securities portfolio. The basis for the formation of a securities portfolio is the percentage ratio between different types of assets. (M.V.Skripnichenko 2014 Portfolio Investments: Handbook p 15)

3.3.3 Classification by time period

Short-term - investment of capital for a period of up to 1 year. Short-term investments are assets held by an enterprise for the purpose of generating a profit through the distribution of income, such as interest income or dividends on investments. Short-term investments are also called temporary investments; they may consist of securities or other investments with an expected maturity of less than one year.

Medium-term - investment of capital for a period of 1 to 3 years.

Long-term - investment of capital for a period of more than 3-5 years.

3.3.4 Classification by scale

Small - the action of which is limited to the framework of one small company implementing the project;

Medium - these are most often projects of reconstruction and technical re-equipment of the existing production of products;

Large - projects of large enterprises, which are based on a progressively "new idea" of production, necessary to meet the demand on domestic and foreign markets; these are targeted investment programs that contain many interrelated final projects.

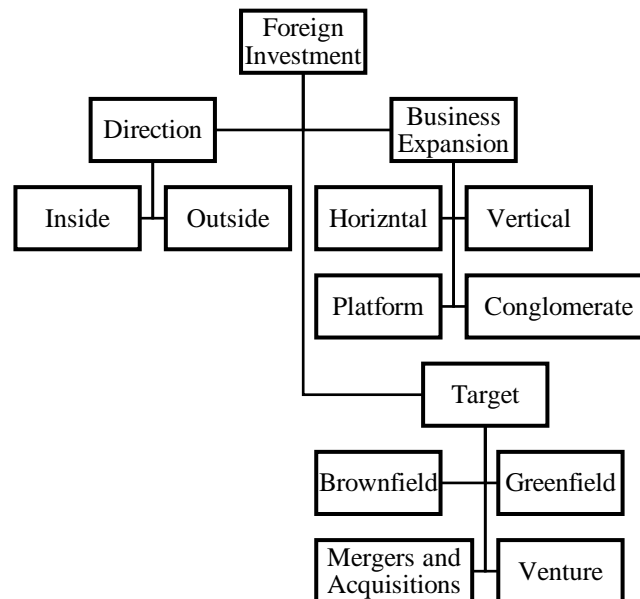
3.3.5 Classification by scale

Highly liquid investments - can be quickly transformed into cash without significant losses in market value; medium-liquid investments - can be transformed into cash without tangible losses in market value;

low-liquid investments - can be transformed into cash without tangible losses in market value; illiquid investments - cannot be realized independently.

3.4 Types of Foreign Direct investments

Table 1: Types of Foreign Investments



Source: Own processing, according by Twomey, M. J. (2000). A century of foreign investment in the Third World.

Horizontal investments.

Horizontal investment is usually accompanied by expansion by the parent company and massive FDI in the host economy. There are two main reasons why a company decides to operate outside its home country: access to new (foreign) markets and the availability of cheap factors of production. Horizontal investment involves the production abroad of almost the same products and services as in the home country. This type of investment is called horizontal, because transnational corporations copy the same activities in different countries. Horizontal FDI is preferred when it is too expensive to sell products to foreign markets due to transport costs and trade barriers. R.Caves 1997 considers the model of horizontal FDI, when a company produces the same goods and services in different countries. He also noted that horizontal ones are considered as duplication of activities by a transnational corporation in different countries. (Caves, R. E. (1996). Multinational enterprise and economic analysis (2nd ed). Cambridge University Press.)

Two factors are important for horizontal FDI: the existence of low trade costs and a stable level of economies of scale. The main motive for horizontal FDI is to avoid transport costs or to enter foreign markets, which can only be done by locating one's own goods/services production facilities there. The horizontal FDI model implies the placement of investments in an environment of equal economic level and wealth of countries.

Glass A, (2011) explained that horizontal FDI is used as an alternative to exports when a business's trading costs are greater than the fixed costs of opening a new branch, also known as the "proximity-concentration approach". The meaning of this approach lies in the difference between the reduction in transport costs due to proximity to the market and economies of scale in the production of one enterprise, i.e. concentration. Economies of scale arise from the fixed costs of starting a new business. The model assumes two cases when horizontal FDI prevails over exports or completely crowds them out.

James R. Markusen, Anthony J. Venables, 2000 extended the characteristics of the horizontal model. They extended the above model to a multinational structure, considering the set of multinational and local producers in each country. First of all, multinational companies dominate in countries that are similar in size, availability of factors of production, and technology. The authors also showed that differences in factor endowments reduce horizontal FDI. (Markusen, J. R. (1984). Multinationals, multi-plant economies, and the gains from trade. *Journal of International Economics*, 16(3–4), 205–226p)

The conditions are necessary for horizontal FDI: the similarity of countries in terms of area and the presence of natural factors of production, the existence of favorable costs, and economies of scale at the company level.

Beugelsdijk S. (2008) also notice that Horizontal FDI reduces the trade flow paths because the supply of the market in the case of production is through local production rather than through exports. The Horizontal FDI is preferred when the cost of imports is higher than the cost of investment. horizontal FDI is characteristic of large foreign markets, allowing a new venture to reduce fixed costs through high volume production. Finally, the value of local production may exceed the simple net cost calculation through the equation described, where opening a new manufacturing facility may have strategic value.

In the context of modern globalization, horizontal FDI still prevails. Developed countries are both donors and recipients of most FDI, as access to foreign markets is a big motive. (Beugelsdijk S. The impact of horizontal and vertical FDI on host's country

economic growth / S. Beugelsdijk, R. Smeets, R. Zwinkels // *International Business Review* 17 (2008) 452-472. - Nijmegen, 2008. - P. 98-113.)

Vertical investments.

Vertical FDI refers to those international companies that divide the production process geographically. They are called vertical because TNCs divide the production chain vertically, controlling some stages of production abroad.

The essence of vertical FDI is to save on factors of production, prices for which vary widely across countries.

James R. Markusen in 1995 defined vertical FDI as a geographical division of the production process into stages, which is very similar to fragmentation. The modern concept includes some common features of these alternative directions and defines vertical FDI as a geographical division of production, while horizontal FDI is seen as a duplication of activities by a transnational corporation in different countries. (Markusen, J. R. (1984). *Multinationals, multi-plant economies, and the gains from trade. Journal of International Economics*, 16(3-4), 205-226p)

Outsourcing and fragmentation are often referred to very close to vertical FDI. These concepts reflect the activities of the company in a very general way and usually include the division of the production process outside the home country. In addition, various prominent researchers define the geographical division of production in their own way.

In modern situations, will not find vertical investments in their pure form. Partly they are in heavy industry. As for horizontal FDI, they are mainly typical for the food industry, these are well-known affiliated factories, McDonald's, Coca Cola companies. etc. (Aizenman, J., & Marion, N. (2004). *The merits of horizontal versus vertical FDI in the presence of uncertainty. Journal of International Economics*)

Brownfield.

In economics, brownfield investment (BI) is a type of foreign direct investment (FDI) where a company invests in an existing facility to start operations in a foreign country. In other words, investment in mature fields is the lease or purchase of an existing facility in a foreign country. (Trouw, M., Weiler, S., & Silverstein, J. (2020). *Brownfield development: Uncertainty, asymmetric information, and risk premia. Sustainability*, 12(5), 2046.)

De Sousa, C. (2000) explained Brownfield investments are often made when a company wants to invest and start operations in a new country but does not want to incur the high start-up costs associated with mature field investments (mature field investments are foreign direct investment when, instead of using existing enterprises in a foreign country, the investor opens his own new business there - in fact, a “from scratch” approach). The basis of investment in mature fields is to enter a new foreign market through enterprises that are already present there. (De Sousa, C. (2000). Brownfield redevelopment versus greenfield development)

When investing in a brownfield, a company either invests in existing facilities and Infrastructure through an M&A dealing or leases existing facilities in a foreign country. The implementation of projects in Brownfield is important for any country and large city - industrial areas where production does not operate should be transformed from abandoned environmentally harmful areas into areas useful for the city. The development of such projects needs significant support from the authorities and should be carried out at the state level - for example, in the form of various preferences for developers, such as preferential taxation, etc. (Meyer, P. B. 1998)

Greenfield investments.

Greenfields investment is an investment in the construction of new facilities, new facilities; greenfield project - a new project or a new construction project created from scratch, etc. In practice, greenfield is translated as construction sites that have not been built up before, an undeveloped piece of land, or as a term used to describe land untouched by economic activity within the city, rural area, which is suitable for farming or equipping its landscaping, and in order to remain untouched to preserve its natural assets. (Roberto, B. 2004 Acquisition versus greenfield investment)

The term "greenfield" refers to buildings built on fields that were literally green. The word "green" is also synonymous with the word "new", which can indicate new construction projects for companies. These companies are usually multinational corporations that start a new venture from scratch, especially in areas where there are no facilities that already exist. (Raff, H., Ryan, M., & Stähler, F. 2009)

There are several reasons why a company may decide to build a new facility rather than buying or renting an existing one. The main reason is that the new facility offers design flexibility along with efficiency to meet project needs. The existing facility forces the company to make changes to fit the existing design. All major equipment needs to be

serviced. New facilities are usually much cheaper to maintain than used ones. If a company wants to advertise its new activities or attract employees, the new premises will also be more conducive.

Developing countries tend to attract promising companies with offers of tax incentives, or they may receive subsidies or other incentives to create new investments. While these concessions may result in lower corporate tax revenues for the foreign community in the short term, the economic benefits and increased local human capital can generate positive returns for the host country in the long run. (Cheng, Y.-M. 2009)

Greenfield investments arise in high-tech businesses and nations that did not have such production facilities prior to the arrival of international investors. Attitudes toward takeovers, capital market conditions, policies, privatization, regional integration, currency risks, and the role played by intermediaries (e.g., investment banks) actively seeking acquisition opportunities and taking the initiative in making deals may all influence mergers and acquisitions. (Estrin and Meyer 2011)

Table 2 Advantages and disadvantages of Brownfield and Greenfield investments

| Greenfield | Brownfield |
|--|---|
| Advantages | |
| <ul style="list-style-type: none"> • Territory provides maximum design flexibility to suit any project • The territory is not burdened with existing buildings and outdated communications • New construction reduces the cost of subsequent maintenance (uses modern technology) | <ul style="list-style-type: none"> • use of existing urban infrastructure • all necessary engineering communications are brought to the territory • high level of state support, including financial |
| Disadvantages | |

| | |
|---|---|
| <ul style="list-style-type: none"> • a long period of time for the coordination of documents • high costs for the development and arrangement of the territory • the need to build a new urban infrastructure • lack of simultaneous funding to the environment | <ul style="list-style-type: none"> • limited land area • high social responsibility of environmental cleanup associated with the property • more expensive construction or renovation costs • high risk of "reinvestment" |
|---|---|

Sources: Greenfield and brownfield investments and economic growth) Bayar, Y. (2017)

Mergers and acquisitions

The main difference between capital investment and M&A investment is that the former has a direct impact on economic growth through capital gains, while the latter has a more indirect effect through productivity growth, which must take place as a result of a change in ownership and reallocation of resources, as well as the spread of technology. The M&A market has developed quite intensively during the last decade.

B. Jovanovic and P. Rousseau (Jovanovic, Rousseau, 2002) were among the first to propose that investment in M&A be conceptually equal to the investment in used assets (purchase of assets in the secondary market). Investments in already used assets are, on the one hand, opposed to new investments, and on the other hand, they are considered as being driven by the same economic factors.

Mergers of companies can occur by joining the acquired company to the absorbing one, by consolidation, i.e. the merger of two or more companies with the creation of a new legal entity, as well as through the creation of a holding - the acquisition of blocks of shares in other companies.

Mergers and acquisitions for the acquired and acquiring companies can be beneficial due to several reasons. Mergers and acquisitions achieve the following effects:

-diversification, i.e. risk reduction by combining companies with different profiles of activity;

-synergism, i.e. the system effect, which consists in the fact that the properties of the system as a whole exceed the simple sum of the properties of its elements;

- substitution, which is expressed in the fact that it is easier to acquire control over an existing enterprise than to build a new one;

- addition, in which the system (absorbing enterprise) fills in by merging (acquiring) the missing elements, for example, qualified management personnel, etc.;

- improvement in the financial position, which can be achieved as a result of changes in the capital structure, return on assets, an increase in the market value of shares, and the receipt of tax incentives. (Trautwein, F. 1990).

The main factors that companies take into account when planning M&A are the possibility of saving time in achieving the set goal, reducing the costs of adaptation, and the costs of competition. Companies often aim to be able to pool resources to achieve additional benefits such as cost savings and revenue growth beyond the sum of these changes that can be made individually. A strategic decision regarding vertical integration may provide an opportunity to save on transaction costs. (Lebedev, S., Peng, M. W., Xie, E., & Stevens, C. E. 2015)

Turnover of business, through purchase and sale, mergers and acquisitions, is a serious criterion for the economic maturity of a society. The development of the mergers and acquisitions market in the Republic of Belarus is in its infancy, which is primarily due to the lack of exchange relations and the slow denationalization of property. At the same time, the focus of M&A operations is shifting towards the so-called “protective” industries. That is industries that are more stable to the dynamics of the business cycle. These are the basic sectors of consumer goods: food, grocery retail, telecommunications, and the Internet, the pharmaceutical industry, and other consumer goods. Belarus has both private and state-owned enterprises in these industries. Moreover, plans have been announced for the privatization of large and medium-sized players, for example, in the pharmaceutical industry. (Pranevich, A. 2014)

As a result of the merger, several companies are merged into one. At the same time, as a rule, there is one acquiring company that initiates such a transaction and has a stronger economic potential. A distinctive feature of the merger of companies is that the shareholders of the acquired company after the merger retain their rights to shares, but already of the new, merged corporation.

The takeover procedure is distinguished by the fact that the acquiring company redeems all or most of the shares from the shareholders of the acquired (absorbed) company. Thus, the shareholders of the acquired company lose their rights to a share in the capital of the newly merged company.

Thus, mergers and acquisitions are a procedure for changing ownership or changing the ownership structure of a company, being the final link in the system of measures for its restructuring.

Mergers and acquisitions involve not only the unification of economic entities but also the allocation of new structural divisions in them. Based on this, two concepts should be distinguished - business expansion (integration) and business spin-off (disintegration). (The Complete Guide to Mergers and Acquisitions Timothy J. Galpin, Mark Herndon 2003 p.203)

Joint Ventures.

A joint venture is an international firm created by two or more national enterprises in order to make the most of the potential of each of the parties in order to maximize the beneficial economic effect of their activities. It is a type of enterprise with foreign investment and, in accordance with the current legislation, is defined as an enterprise with equity participation of foreign investors. An important feature of a joint venture should be considered the presence among its founders (participants), along with the national one, of at least one foreign investor. (Büchel, B. S. T. 1997)

Joint ventures have become a means of attracting advanced foreign technology and modern management experience. Thanks to them, the export of capital is facilitated, including in its productive form, investment projects are being implemented, the implementation of which is beyond the power of one company. In addition, markets in new regions are easier to develop with the help of local partners, especially since enterprises with the participation of foreign and domestic investors often enjoy tax incentives. (Kevra, G. 2017).

A distinctive feature of the management structure of a joint venture is the equality of the parties in decision-making processes, control over the activities of the company, strategic planning. Operational and tactical management is carried out by the supreme management body of the company, appointed by the co-owners of the joint venture. The parity principles of company management allow each of the parties to derive the greatest benefit from joint activities and contribute to the development of business cooperation.

A broader interpretation of the term "joint venture" gives an explanatory economic dictionary: this is a company in which the risky capital is divided between two or more firms. This method of organizing is often used on projects that are too large or too risky for anyone firm to attempt on its own. Firms involved in such an undertaking may exercise various

forms of due diligence: for example, firms investing abroad usually look for local partners. Foreign firms can provide technical expertise, while local firms benefit from good awareness of local conditions and business practices, marketing, and doing business with governments and the labor force of their countries. (A Dictionary of Economics John Black 2000.)

3.5 Foreign Direct investments and Economic growth

Economic growth is a long-term phenomenon associated with the expansion of options for the use of production, compared with their efficiency.

In developing countries have come to the conclusion that foreign direct investment (FDI) is necessary to stimulate the growth of their economies. It is argued that FDI can create jobs, accelerate technological development in the host country, and improve the economic condition of the country as a whole.

Foreign direct investment is considered as the main source of obtaining the necessary funds for investment, so most countries with economies in transition offer incentives to encourage FDI.

In addition to providing funds for investment, FDI inflows to developing countries are expected to create externalities through technology transfer and diffusion, an effect that has had the least lasting effect on the economy. (Karkovic and Lavine, 2002).

Townsend (2003) said that the relationship between FDI and economic growth is not so clear. There are different views of researchers on the contribution of FDI to economic growth, based on theoretical and analytical results. Some believe that FDI is a very important tool for economic growth, especially in less developed countries, but some scholars have argued that the contribution of FDI to economic development is not as pronounced as most people believe. However, some scholars believe that FDI does not contribute positively to the economic growth of the host country. There has been no consensus on FDI and economic growth. (Townsend I. (2003)

GDP growth is usually a parameter for measuring the economic growth of a country, although it is not the only one.

GDP includes all output within a country in a given period. Foreign direct investment is included in GDP and much has been done to reveal the relationship between FDI and growth.

Don P. Clark, J. Highfil, de O. Campino, C.S. Reman conducted a macroeconomic study that determines the degree of influence of FDI inflows on the country's economic growth. The authors found that the externality of technology transfer is the main driver of long-term economic growth. The effect of FDI exacerbates income inequality, despite the fact that attracting capital contributes to the growth of welfare in the country. FDI is positively correlated with the externality of technology transfer. (Don Clark P., Hihgfill J., De O. Campino J., Rehman S. S. FDI, technology spillovers, growth, and income inequality: a selective survey // Global economy journal. – Vol. 11. – Issue 2. – 2011.- Article 1. – pp. 1-42.)

The impact of FDI on growth also depends on host country hosting conditions. The contribution of FDI to growth depends on factors such as the host country's human capital base and the degree of openness in the economy, and even when FDI contributes to the economy, its impact may not be easily seen in the short term.

Countries with high growth rates can attract FDI better than countries where the economy is not in good shape. This confirms the fact that while FDI contributes to growth, economic growth also affects the level of FDI in a country.

In poor countries, the direction seems to be from growth to FDI as much as from FDI to growth. (Graham, E. M. (2005)

Care should be taken when attracting FDI, and this should be directed to some specific sector where foreign investment is most needed. FDI may contribute to GDP but not increase the well-being of people in the host country. For example, FDI in the agricultural sector can improve wealth in the host country than FDI in the oil and minerals sector.

4 Practical Part

4.1 The subject of the practical part

This part analyzes the relationship between foreign direct investment and the economy.

The objective of this thesis is to analyze this relationship using Belarusian as an example. In particular, a comparable relationship will be observed in the two neighboring economies, the Russian Federation and Ukraine, in order to compare with Belarus, which will allow conclusions to be drawn.

4.1.1 Historical Overview Republic of Belarus

Belarus was one of the countries of the Soviet Union until 1991. After the collapse of the USSR and independence, Belarus became a parliamentary republic. The Belarusian ruble was introduced in 1992. The rupture of economic ties after the collapse of the USSR, the inevitable decline in production and inflation during the transition to a market economy, miscalculations of the previous stage of perestroika led the national economy of Belarus to a deep economic crisis. Since 1992, began a decline in production. From 1990 to 1995 gross domestic product decreased by 38%, industrial production - by 41%, agricultural production - by 27%, capital investments - by 60%. (Vysotsky, S., & Khvalko, T. 2019)

Image 1: Political Map of Belarus



Source: <https://www.nationsonline.org/oneworld/map/belarus-political-map.htm>

The economic situation of Belarus, in the conditions of free pricing, was complicated by the problem of supplies of fuel and energy resources, metal, raw materials from Russia, Ukraine, and the republics of Central Asia. Prices for them continuously grew, causing a multiple increase in prices for goods and services.

In the first half of the 1990s, the standard of living of the republic's population declined sharply. The consumer market experienced a crisis. Citizens of Belarus were issued the so-called consumer "cards" for the purchase of industrial goods and coupons for food. A heavy loss for the population was the depreciation of cash savings. In 1993, 54,000 unemployed people were registered. More and more residents of Belarus found themselves below the poverty line. The number of people whose incomes were 60% or less of the minimum consumer budget in 1995 was 63% of the country's population. (Voroshina , E. V. 2019)

In 1995, Belarus adopted a program for overcoming the crisis, calculated up to 2000. The course towards a socially-oriented market economy, the implementation of an effective social policy became the basis of the domestic political activity of the country's leadership.

In 1996-1997 managed to reduce inflation and the rate of economic decline in production, revive production in certain industries, contain the decline in living standards of the population, and reduce unemployment.

However, the currency crisis in the republic in March and the August 1998 financial crisis in Russia had a negative impact on the Belarusian economy. In order to overcome the crisis, the Belarusian ruble exchange rate was unified and prices were partially liberalized, budget discipline was strengthened, settlements were to a large extent monetized, and barter was reduced. As a result of these measures, inflation decreased from 251% in 1999 to 108% in 2000. The volume of gross domestic product increased by 3.8% in 2000, and by more than 4% in 2001. Industrial production increased by 5.5% and amounted to 106% compared to 1990. In 2001, the population's real cash income increased by 25%, and real wages by more than 30%. At the same time, the volume of unsold products continues to grow, the level of investment remains low, and a third of enterprises are unprofitable. (Enin Yu.I , 1998)

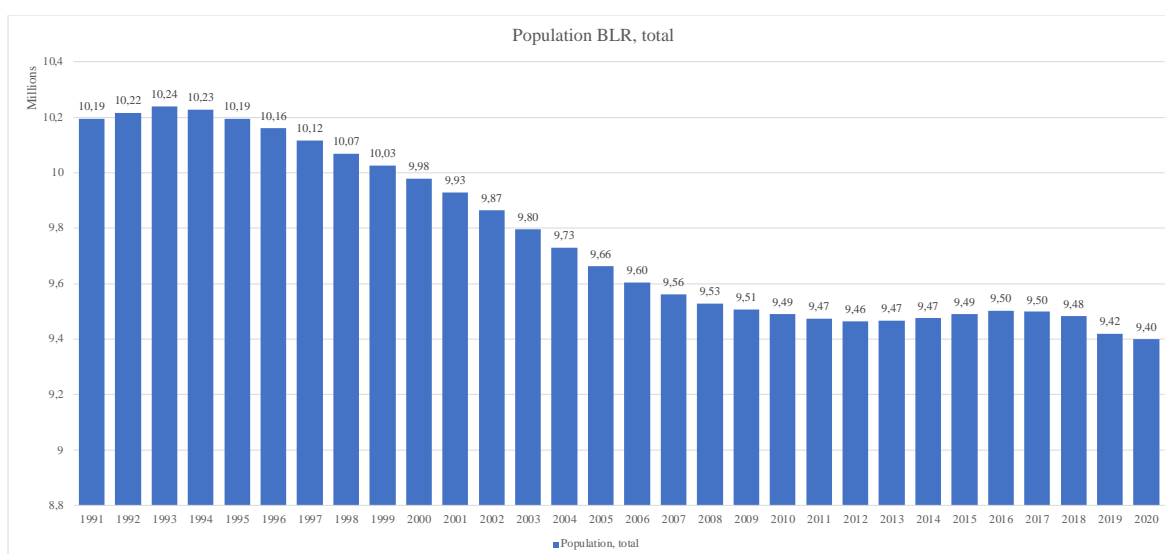
Significant economic growth of the republic in 2004-2006 was due to the supply of energy resources to the country from Russia at domestic Russian prices and their resale at world prices, special relations with Russia and the world market.

A big problem is the growing shortage of able-bodied labor force every year, and the growth in the number of pensioners, due to low birth rates and high emigration of the

population to other, richer, countries of the world. Especially difficult situation with the growing demographic crisis in many developing countries.

Reforming the country's economy in the 90s of the last century affected many aspects of the life of the population. The transition to a diversified economy, the development of the private sector, the emergence of informal activities, the removal of restrictions on re-employment, the emergence of unemployment, the formation of the housing market - all this significantly affected the living conditions of the population and, accordingly, the dynamics of its size, composition, processes of population reproduction. (Lioukina V. 2015)

Figure 1 : Population of Belarus 1991-2020



Source: World Bank (Republic of Belarus, 2020.)

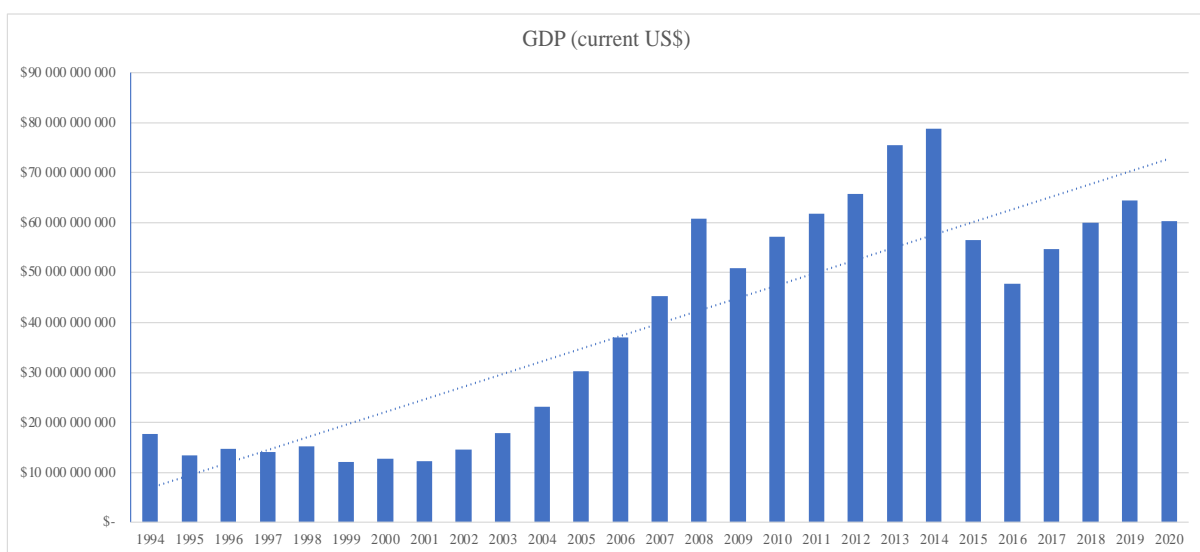
A decrease in the population may be a consequence of high mortality and low birth rates, migration processes, as well as circumstances that cause a significant reduction in the population. Depopulation is observed in a number of countries of the world, and Belarus is no exception. The main factor of depopulation in modern conditions is the decline in the birth rate to an ultra-low level, unable to compensate for even low mortality.

In December 2010, after the presidential election, the European Union imposed sanctions on Belarus for violations of human rights and democratic procedures. The list of sanctioned companies and organizations included, among others, "Beltechexport", which exports arms and dual-use products. The sanctions were suspended at the end of 2013.

4.1.2 GDP Belarus

The main sources of Belarus' GDP are the active use of production facilities inherited from the USSR and the high share of raw materials in total exports. Economic growth is not accompanied by the use of new technologies, market innovations, or increased competitiveness of goods. However, most of the production facilities inherited from the USSR are already worn out and are in need of serious modernization. In this regard, attracting foreign direct investment is currently the most important task for the Republic of Belarus. (Gashnikova, T. V. 2020)

Figure 2: GDP Belarus 1994- 2020



Source: World Bank (the Republic of Belarus, 2020.)

The main sectors of the economy - are mechanical engineering, chemical and petrochemical industry, fuel and energy sector, agro-industrial complex, timber industry and woodworking, etc.

The fuel and energy complex of Belarus includes systems of extraction, transportation, storage and production of all types of energy carriers. About 85 percent of the energy resources involved in the country's economy are imported by Belarus.

The light industry of Belarus is represented by more than 300 enterprises that produce more than 3 percent of the total industrial output.

Belarus has a developed banking sector. More than 25 banks operate in the country, of which more than 20 are with foreign capital, including 7 banks with 100% foreign capital. In addition, there are 8 representative offices of foreign banks in Belarus. (Loukianova, I. A., Shkliarova, M. A., & Vysotsky, S. Yu. 2019)

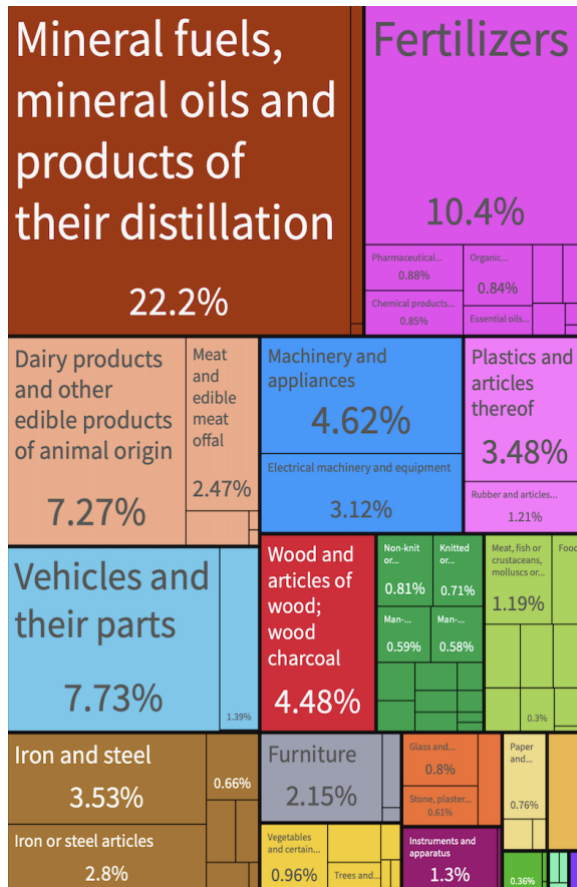
The main export positions of Belarus are mineral products (37.9%), products of the chemical and related industries (14%), machinery and equipment (8.1%), vehicles (9%). The bulk of imports to Belarus were energy goods (35.2%), other intermediate goods (raw materials, materials, components) (38%). (MATVIENKO, E. 2021)

Figure 3: Exports of goods and services (current bUS\$)



Source: World Bank (Republic of Belarus, 2020.)

Figure 4: Structure of Belarusian Export



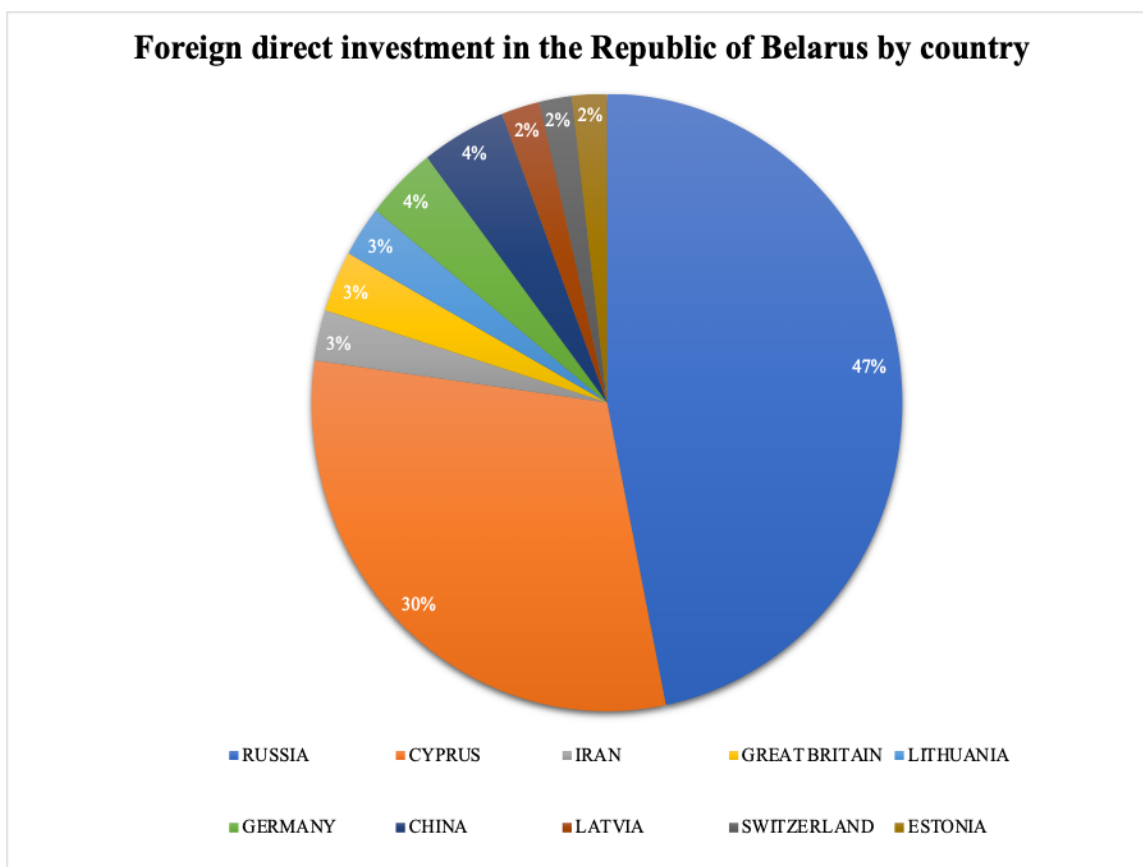
Source: The Observatory of Economic Complexity (2020)

4.2 FDI in Belarus

The dynamics of attracting FDI on a net basis to the Republic of Belarus is characterized by a significant increase in the volume of direct investment inflows in recent years.

According to the National Bank of the Republic of Belarus(See Figure 5), the main investor countries are: Russia, Cyprus, Germany, China. (National Bank Belarus 2020)

Figure 5: Foreign direct investment in the Republic of Belarus by country.



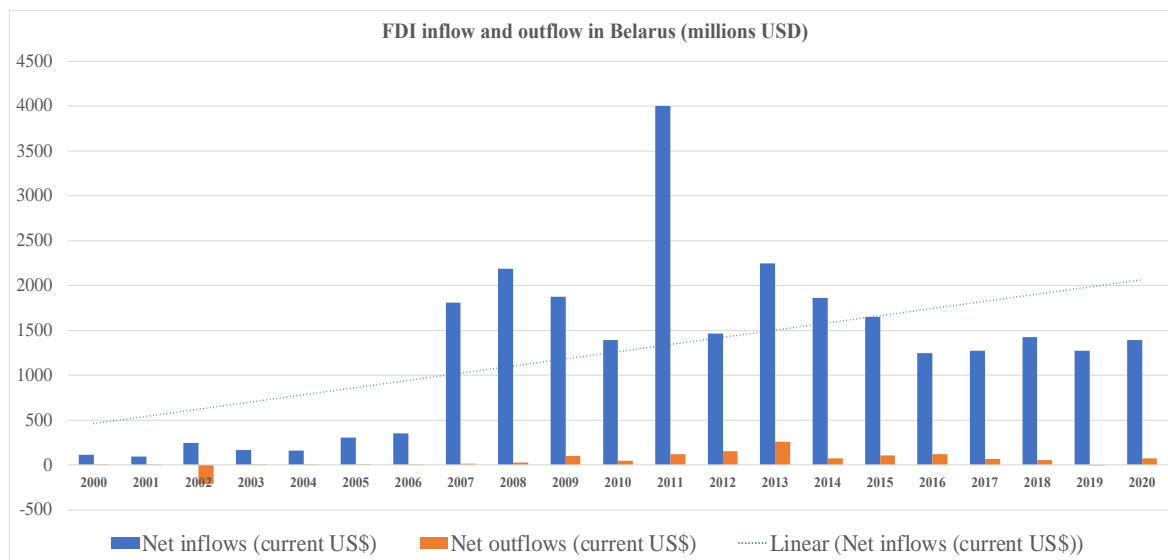
Source: The National Bank of the Republic of Belarus (2020)

To start the necessary calculations, the initial data was obtained from the source of statistics, the World Bank, period from 2000 till 2020, measured in Millions of current US dollars.

The unbalanced inflow of foreign investments in 2010-2019 (see Figure 6) may indicate that they are of a "spotty" nature, i.e., they are received for specific projects. The highest volume of investments was attracted in 2011, which was due to Russian investments

in the Belarusian economy, representing payments by "Gazprom" in connection with the acquisition of stakes in a joint venture based on the ownership of "Beltransgaz". Portfolio foreign investment in Belarus traditionally remains at a low level, mainly due to the underdevelopment of the Belarusian stock market.

Figure 6: FDI inflows and outflows in Belarus (2000-2020)



Source: World Bank (Republic of Belarus, 2020.)

The inflow and outflow lowest cases came to the period of beginning of the 2000s. The low FDI indicators are determined by the country's adaptation to economic changes, in particular the transition from a planned economy to an open market economy.

The Republic of Belarus in the middle 2000s adopted a number of legal acts aimed at radical liberalization of the economy and increasing the investment attractiveness of the country.

The Inflows in 2007 increased by 406.1% ($1807300000 * 100 / 357100000 - 100 = 406.104$)

In 2009, Belarus faced the consequences of the Global Financial Crisis that occurred in 2008-2009. the volume of investments decreased by 14. 23% compared to 2008

$$(1876500000 * 100 / 2187900000 - 100 = -14.232826)$$

The average annual volume of investments in Belarus from 2012 to 2020 is 1.5376 billion USD.

For the last 5 years, there has been a positive trend in investments in Belarus (see Figure 6)

Despite the global trend towards a decrease in investment inflows, Belarus managed to keep the amount of investment in the pre-COVID year and increased for 9.29% ($139100000 * 100 / 127330000 - 100 = 9,290819131$).

4.3 FDI in neighboring countries

Due to the fact that the main purpose of this thesis is aimed at analyzing the economy of Belarus, it is necessary to compare neighboring countries. The neighboring countries of Belarus were countries participating in the Soviet Union (Russia, Ukraine, Latvia, Lithuania) or participants in the Warsaw Pact (Poland). Since Belarus is not a member of the European Union, according to the author of this work, it is necessary to compare countries that are also not members of the EU.

4.3.1 FDI in Ukraine

Due to the adoption of the Law of Ukraine "On the regime of foreign investment", the establishment of an open and transparent state policy creates a favorable climate for foreign investment in the Ukrainian economy. According to the Law, a foreign investor in Ukraine has equal conditions of activity with a domestic investor. Foreign investors are given state guarantees for the protection of their investments by the said Law. In particular, foreign investments in Ukraine are not subject to nationalization.

According to the of the National Investment Council of Ukraine (2020) The most promising sectors of the Ukrainian economy are: food production; textile production; manufacture of wearing apparel; production of pharmaceutical products; production of computers, electronic and optical products; production of electrical equipment;

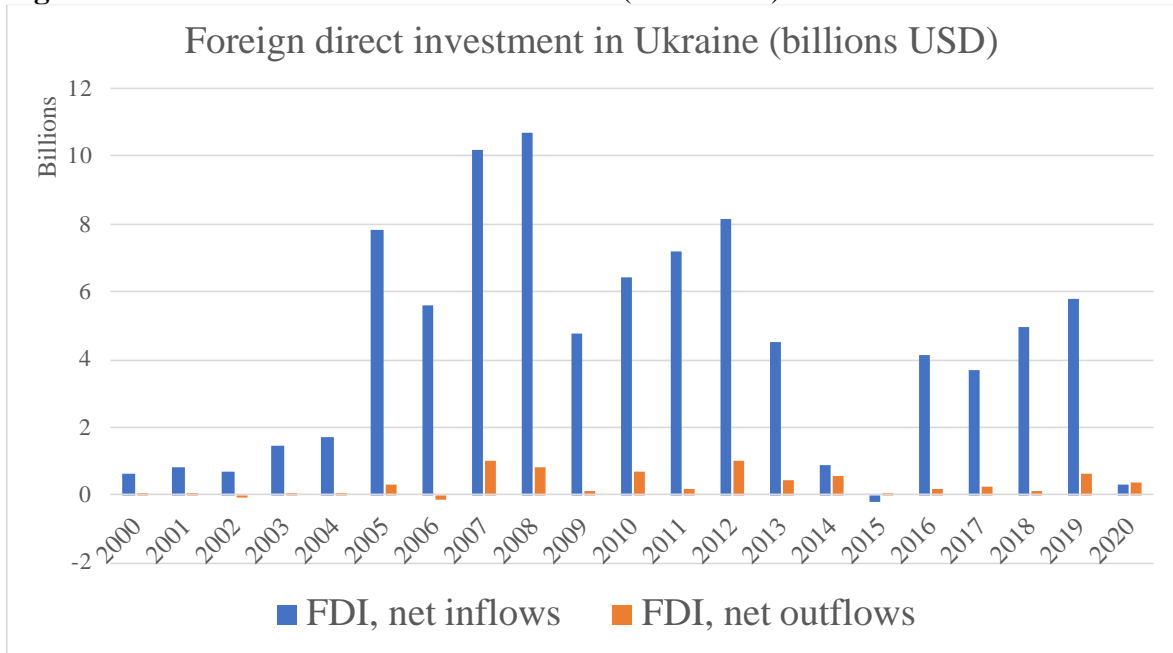
furniture manufacture; cultivation of annual and biennial crops; telecommunications enterprises; businesses involved in computer programming and related consulting.

The Figure 7 illustrates all FDI changes in Ukraine from 2000 to 2020.

According to OECD (2020), Ukraine is a principal beneficiary of FDI not associated with oil in the region. In Ukraine, the FDI activity is fairly concentrated in financial services, metallurgy, and the food industry.

For European investors, proximity to the EU, low labor costs and high qualifications make Ukraine one of the most attractive countries for investment.

Figure 7: FDI inflows and outflows in Ukraine (2000-2020)



Source: Processing according to World Bank, 2021

In 2005, the Ukrainian government made a huge breakthrough in the inflow of investment into the country. The increase was more than 355% ($(7808000000 / 100 * 1715000000 - 100) = 355.2769679\%$).

High investment growth rates are explained by the privatization sale of Mittal Steel Germany GmbH for about \$4.8 billion of the Kryvorizhstal metallurgical plant. Also the private sale of Aval Bank to the Austrian Raiffeisenbank in the amount of \$1.03 billion.

In 2014 and 2015, due to the war in the Donbas and Luhansk, as well as Russia's annexation of Crimea, the investment climate in Ukraine worsened. Investment decreased by more 84%.

$$(847000000 * 100 / 4509000000 - 100 = -81,215).$$

2015 due to the hryvnia devaluation, the volume of foreign direct investment decreased by \$0.58 billion (According to the State Statistics Service).

In 2020, capital investment in Ukraine fell by almost 94%. ($(304000000 * 100 / 5796000000 - 100 = -94,75500345)$). The reason for this enormous decrease in FDI is connected to the spread of coronavirus and the decline in manufacturing in Ukraine.

4.3.2 FDI in Russian Federation

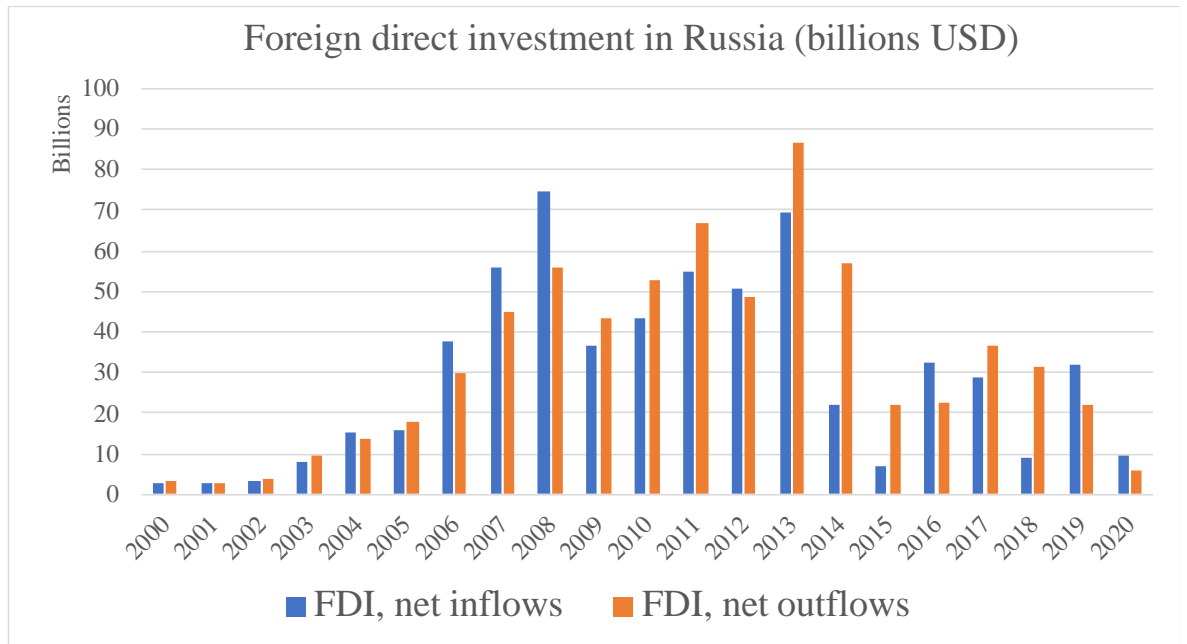
After the collapse of the USSR, Russia became the successor, retaining not only the largest territory but also a powerful resource and production base. Industrial development of Russia in the 90s. undergone major qualitative changes. The new leadership of the Russian Federation set the task of restructuring the economy from planned and directive rails to market ones, with the subsequent entry of Russia into the world market. The next stage was supposed to accelerate the country's progress towards building an information society.

Disproportions in the development of the economy also persisted. The openness of the Russian economy to foreign goods and services helped in a short time to eliminate the shortage of goods - the main disease of the Soviet economic system. The global financial crisis of 1998 had a significant negative impact on the country's economy. (Minakova, I.V. (2020). Sources of Stimulation of Investment Activity in Russia for the Transition to a New Stage of Technology)

The Figure 8 shows all fluctuation and changes in FDI in Russia

According to Rosstat, three types of activity look attractive to strategic foreign investors in Russia: manufacturing; mining; real estate transactions, and services. The main volume of capital brought to Russia from abroad came from Great Britain, the Netherlands and Luxembourg. In fourth place is Cyprus followed by Switzerland by a wide margin.

Figure 8: FDI inflows and outflows in Russian Federation (2000-2020)



Source: Processing according to World Bank, 2021

Russian economic growth in 2006 led to record growth in foreign direct investment, expansion of domestic trade and high growth rates. Most of the capital investments in fixed capital were directed to transport and communications, mining, and manufacturing industries.

FDI inflows in 2006 increased more than 142% ($37594770000 * 100 / 15508050000 - 100 = 142,42\%$).

In Russia, despite the recovery in activity in many sectors of the economy after the crisis of 2008-2009, investment growth has slowed down. The consequences of the global financial crisis reduced the volume of FDI in Russia by 51% ($36583100000 * 100 / 74782910000 - 100 = -51,08093547$)

In February 2014, Russia annexed Crimea. The United States and the European Union, Australia, New Zealand and Canada have put into effect the first round of sanctions. These measures included an asset freeze. In addition to these restrictions, contacts and cooperation with Russia and Russian organizations in various fields were also curtailed.

The sanction effects in 2015 decline in the investment climate led to a decrease in FDI in Russia for 68% ($22031340000 * 100 / 69218890000 - 100 = -68,17149191$).

In 2020, the instability caused by the spread of coronavirus infection led to a decrease in the inflow of foreign direct investment. Against the background of the economic downturn, the pandemic has had an impact on foreign investment, comparable in strength with the sanctions shock of 2014. Investment volumes decreased by more than 70 %.

$$(9478810000 * 100 / 31974770000 - 100 = -70,35534579)$$

4.3.3 FDI region summary

The purpose of descriptive statistics is to process empirical data, systematize them, present them visually in the form of graphs and tables, and describe them quantitatively utilizing basic statistical indicators. (<https://statistics.laerd.com/statistical-guides/descriptive-inferential-statistics.php>)

The author of this thesis proposes to conduct a descriptive statistical analysis of FDI for the period from 2000 till 2020(see Table 3). This analysis has been done in Microsoft Excel using Analysis Toolpak.

Table 3: Descriptive statistics of FDI inflows and outflows.

| | BLR | | UKR | | RUS | |
|--------------------|-------------|--------------|-------------|--------------|-------------|--------------|
| | FD inflows | FDI outflows | FD inflows | FDI outflows | FDI inflows | FDI outflows |
| Mean | 1,2651 | 0,049695238 | 4,293666667 | 0,307190476 | 29,0928681 | 32,21701333 |
| Standard Error | 0,209580753 | 0,019456364 | 0,72911851 | 0,073824587 | 4,904756179 | 5,097571387 |
| Median | 1,3916 | 0,0506 | 4,509 | 0,192 | 28,55744 | 29,99315 |
| Standard Deviation | 0,960419665 | 0,089160263 | 3,341240763 | 0,338306757 | 22,47641646 | 23,36000674 |
| Sample Variance | 0,922405933 | 0,007949552 | 11,16388983 | 0,114451462 | 505,1892968 | 545,68995 |
| Kurtosis | 1,831132501 | 3,519383287 | 0,909428455 | -0,500740307 | 0,753845723 | 0,289638572 |
| Skewness | 0,903468825 | -0,440790938 | 0,347640898 | 0,806525982 | 0,561748754 | 0,563840514 |
| Range | 3,9066 | 0,4684 | 10,898 | 1,113 | 72,10488 | 83,96549 |
| Minimum | 0,0958 | -0,2062 | -0,198 | -0,133 | 2,67803 | 2,54104 |
| Maximum | 4,0024 | 0,2622 | 10,7 | 0,98 | 74,78291 | 86,50653 |
| Sum | 26,5671 | 1,0436 | 90,167 | 6,451 | 610,95023 | 676,55728 |
| Count | 21 | 21 | 21 | 21 | 21 | 21 |

Source: Processing according to World Bank, 2021

According to descriptive statistical analysis, it is possible to note that Belarus basically attracts investments, but does not invest itself. Based on the calculations, it can be concluded that Belarus has attracted investments 25.506 times more than it has invested. ($1.2651 / 0.049695238 = 25.506$). This can be explained by the fact that the main aim of the Belarusian government was to rebuild the own economy.

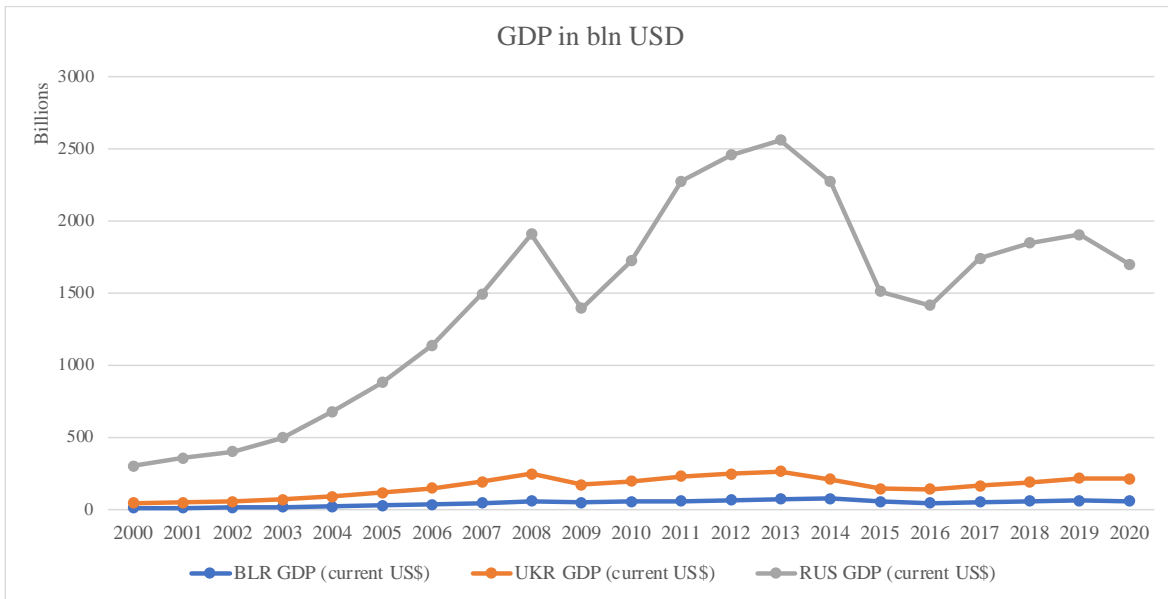
Ukraine demonstrates analogous tendencies in FDI compared to Belarus. Both countries were in a difficult economic situation after the collapse of the Soviet Union. Furthermore, the Governments of the two countries implemented identical reformation to enhance the investment climate and improve the environment for foreign enterprises. Ukraine also makes fewer investments in foreign countries, but obtains more investments. (see Table 3). The difference between inflow and outflow is 13 times ($4.2936 / 0.3071 = 13.981$)

The situation in Russia is radically different. Russia invests more intensively than it receives investment. Moreover, sanctions in 2014 and the coronavirus pandemic had a significant influence on the volume of investment in Russia. Russia invested in foreign companies and countries 110% more than it received by itself. ($32.217 / 29.09286 = 1.10726$).

4.3.4 GDP region summary

Russia has the highest GDP according to the results, followed by Ukraine and Belarus in third place

Figure 9: GDP of Belarus, Ukraine and Russia, current USD (2000-2020)



Source: Processing according to World Bank.

The tremendous gap between the economies of the three countries is clearly illustrated the Figure 6. Russia has increased its GDP by 5 times in period from 2000 to 2020. ($1483.5 / 259.71 = 5.712140464$). In the structure of Russian exports, oil and gas represent approximately the half of the country's exports, according to Rosstat.

The growth of GDP in Ukraine and Belarus appears to be very analogous. As of 2000, the the GDP of Ukraine was 32,375 billion USD, and 155,498 billions USD, in 2020. Which means GDP growth over these years is more than 4 times ($155.498 / 32.375 = 4.803015993$)

Belarusian GDP in 2020 was equal 12.738 billion USD. At the end of 2020, the GDP was equal to 60.258 billion USD. GDP growth over these years close to 5 times. ($60.258/12.738 = 4.73$)

4.4 FDI and GDP regression-correlation analyses

The fundamental idea and purpose of the analysis of this thesis are to find out does Belarus has a direct relationship between the growth of GDP and Foreign Direct Investments. Also to compare whether there is the same relationship between the researched objects in Russia and Ukraine. To analyze the variables (GDP and FDI), the author conducted a regression-correlation analysis. As a software program for the calculations of the analysis, Microsoft Excel was used. In Excel there is a Data Analysis Package, which allowed to conduct the analysis.

Regression analysis is a method of modeling measured data and investigating its properties. Data consists of pairs of values of the dependent variable (response variable) and the independent variable (explanatory variable). (Applied Regression Analysis, 3rd Edition Norman R. Draper, Harry Smith ISBN: 978-0-471-17082-2 April 1998)

The regression analysis is conducted based on the constructed regression equation and determines the contribution of each independent variable to the variation of the dependent variable under study (predicted). The main task of regression analysis is to determine the impact of factors on the outcome indicator (in absolute terms).

Linear regression model is expressed using the following equation:

$$Y = a + bX$$

Y - dependent variable (GDP)

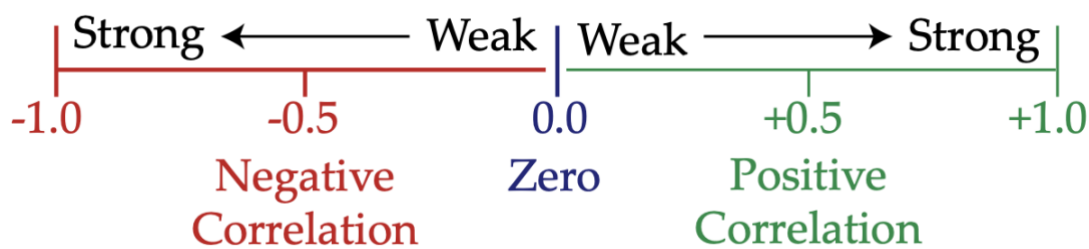
X - independent variable explanatory (FDI Inflow/outflow)

a - free term (shift along the axis Y)

b - slope coefficient. It indicates the behavior of the curve (decreasing or increasing, angle between with the axis)

Correlation is one of the basic terms of probability theory, showing the measure of dependence between two or more random variables. This dependence is expressed through the correlation coefficient. The correlation coefficient takes values from -1 to +1. The higher the value of the correlation coefficient, the greater the dependence between the values. Correlation can be positive or negative. (Teoriya veroyatnostey i matematicheskaya statistika, V. E Gmurman ISBN 5-06-004214-6.)

Image 2: Correlation Coefficient Shows Strength & Direction of Correlation



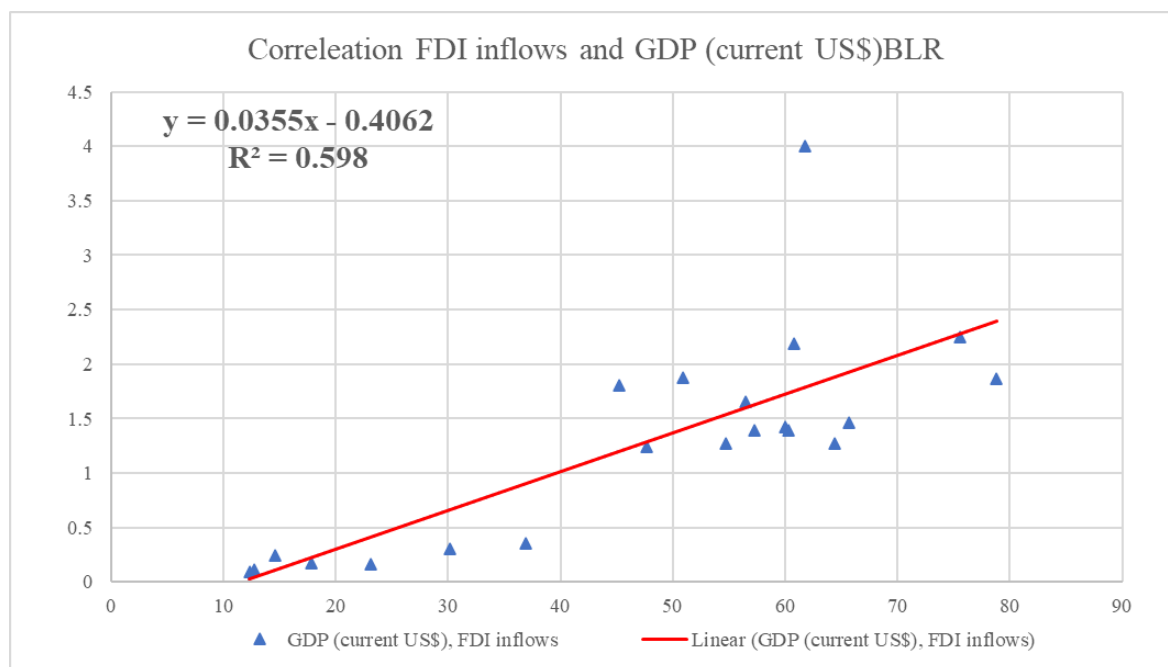
Source: https://www.kem.edu/wp-content/uploads/2012/06/9-Principles_of_correlation-1.pdf

The coefficient of determination estimates the proportion of variance (variability) of Y that is explained by X in a simple linear regression model. The R Square of the sample correlation coefficient is usually denoted and called the coefficient of determination.

Belarus FDI Inflow and GDP.

The author of this thesis, graphically explained the correlation fields between Belarus GDP and FDI, using collected data from the World, the period from 2000 to 2020. Calculations are conducted in different phases: construction of the correlation field and linear-regression analysis.

Figure 10: FDI inflow and GDP in Belarus. Correlation (2000-2020)



Source: own processing, source by World Bank 2021

Based on Figure 10, it is possible to identify a positive trend line. The correlation field is compactly located.

The regression equation:

$$y = 0.0355x - 0.4062, \text{ where :}$$

y - endogenous variable, GDP

x - exogenous variable (FDI inflows)

a - Y-intercept =0.0355

b – slope =0.4062

Further, it is necessary to perform a linear regression analysis. This analysis is performed using the Analysis ToolPak regression in Excel.

Table 4: FDI inflow and GDP in Belarus. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|--|
| <i>Regression Statistics</i> | | | | | | | | | |
| Multiple R | 0.77330111 | | | | | | | | |
| R Square | 0.59799461 | | | | | | | | |
| Adjusted R Square | 0.57683643 | | | | | | | | |
| Standard Error | 13.5911145 | | | | | | | | |
| Observations | 21 | | | | | | | | |
| <i>ANOVA</i> | | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | | |
| Regression | 1 | 5220.70476 | 5220.70476 | 28.2630475 | 3.9417E-05 | | | | |
| Residual | 19 | 3509.6495 | 184.718395 | | | | | | |
| Total | 20 | 8730.35426 | | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> | |
| Intercept | 25.7344923 | 4.98211534 | 5.16537465 | 5.5023E-05 | 15.306805 | 36.1621795 | 15.306805 | 36.1621795 | |
| FDI inflows | 16.8224221 | 3.16431005 | 5.31630017 | 3.9417E-05 | 10.199445 | 23.4453991 | 10.199445 | 23.4453991 | |

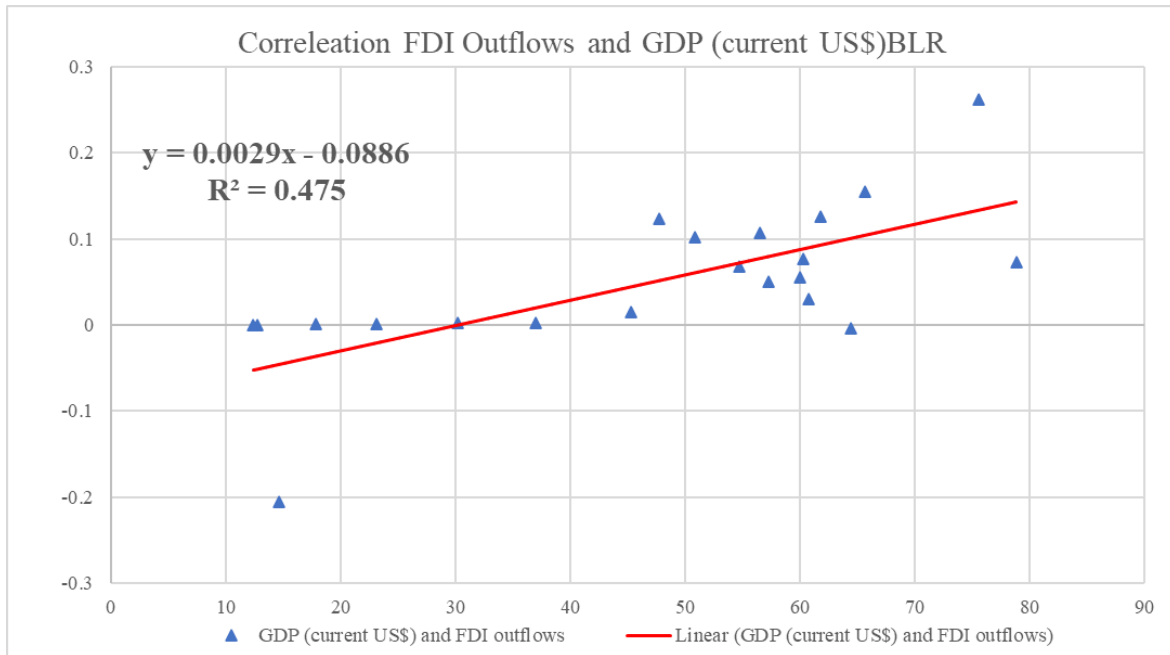
Source: own processing, source by World Bank 2021

Multiple R in the Excel version stands for the correlation coefficient. The coefficient of correlation equals 0.77330111. R-square is equals 0.597994607

Belarus FDI Outflow and GDP.

The next element to comparing would be Belarus' FDI outflows and GDP, period from 2000-2001.

Figure 11: FDI outflow and GDP in Belarus. Correlation(2000-2020)



Source: own processing, source by World Bank 2021

$y = 0.0329x - 0.0886$, where :
 y - endogenous variable, GDP
 x - exogenous variable (FDI outflow)
 a - Y-intercept = 0.0329
 b - slope = 0.0886

Table 5: FDI outflow and GDP in Belarus. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.68918522 | | | | | | | |
| R Square | 0.47497627 | | | | | | | |
| Adjusted R Square | 0.44734345 | | | | | | | |
| Standard Error | 15.5320435 | | | | | | | |
| Observations | 21 | | | | | | | |
| <i>ANOVA</i> | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 4146.71114 | 4146.71114 | 17.1888407 | 0.00054903 | | | |
| Residual | 19 | 4583.64312 | 241.244375 | | | | | |
| Total | 20 | 8730.35426 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | 38.9908864 | 3.90321527 | 9.9894276 | 5.3535E-09 | 30.8213629 | 47.1604098 | 30.8213629 | 47.1604098 |
| FDI outflows | 161.497407 | 38.953121 | 4.14594268 | 0.00054903 | 79.9675877 | 243.027226 | 79.9675877 | 243.027226 |

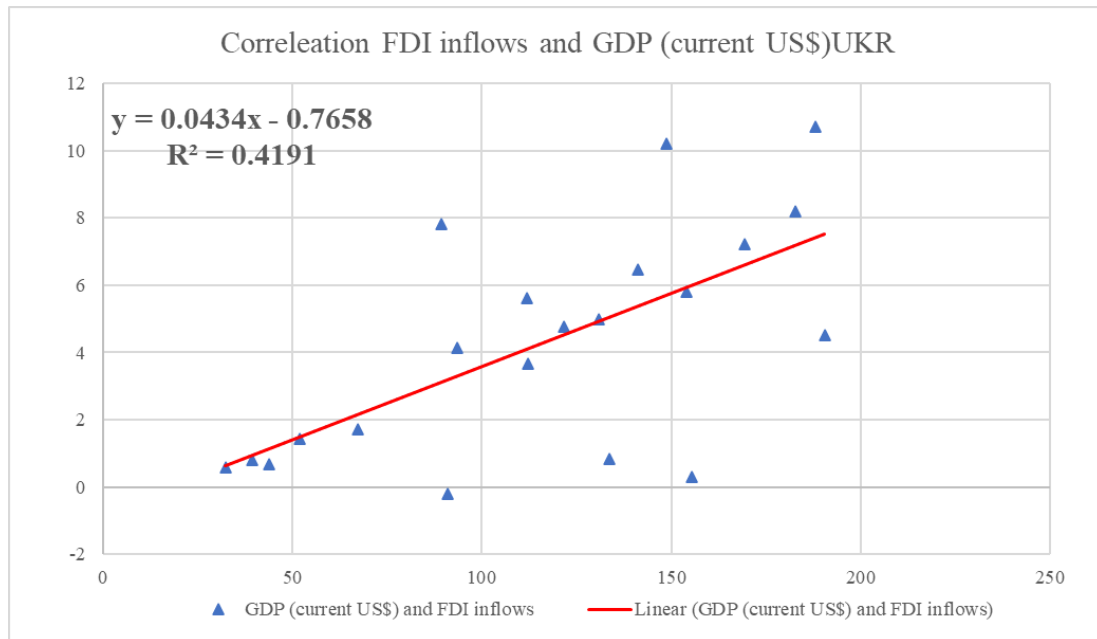
Source: own processing, source by World Bank 2021

The coefficient of correlation equals 0.689185225. R-square is equals 0.474976274

Ukraine FDI inflows and GDP.

The author of this thesis, graphically explained the correlation fields between Ukraine's GDP and FDI, using collected data from the World, the period from 2000 to 2020. Calculations are conducted in different phases: construction of the correlation field and linear-regression analysis.

Figure 12: FDI inflows and GDP in Ukraine. Correlation (2000-2020)



Source: own processing, source by World Bank 2021

Based on Figure 12, it is possible to identify a positive trend line. The correlation field is compactly located.

The regression equation:

$$y = 0.0434x - 0.7658, \text{ where :}$$

y - endogenous variable, GDP

x - exogenous variable (FDI Inflows)

a - Y-intercept = 0.0434

b - slope = 0.7658

Table 6: FDI inflows and GDP in Ukraine. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.64740876 | | | | | | | |
| R Square | 0.4191381 | | | | | | | |
| Adjusted R Square | 0.38856642 | | | | | | | |
| Standard Error | 38.9822557 | | | | | | | |
| Observations | 21 | | | | | | | |
| <i>ANOVA</i> | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 20833.9576 | 20833.9576 | 13.7100123 | 0.00151041 | | | |
| Residual | 19 | 28872.7089 | 1519.61626 | | | | | |
| Total | 20 | 49706.6665 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | 75.1143784 | 14.064273 | 5.34079355 | 3.7349E-05 | 45.6775167 | 104.55124 | 45.6775167 | 104.55124 |
| FD inflows | 9.65594834 | 2.60781039 | 3.70270338 | 0.00151041 | 4.19773846 | 15.1141582 | 4.19773846 | 15.1141582 |

Source: own processing, source by World Bank 2021

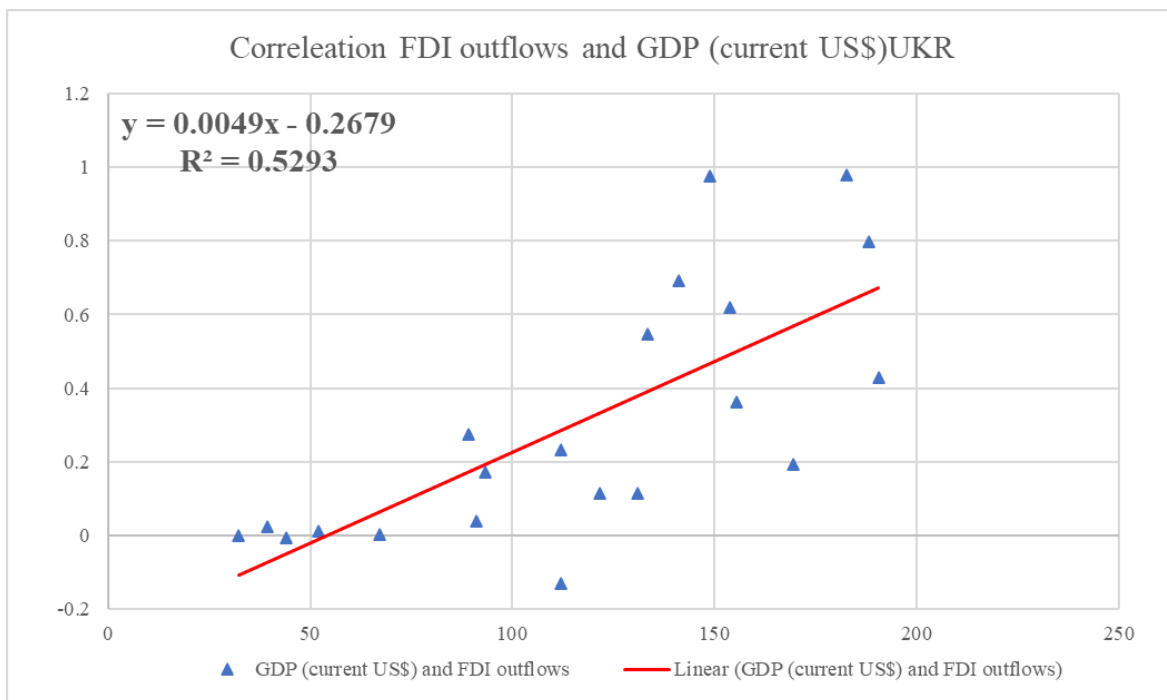
The coefficient of correlation equals 0.647408755

R-square is equals 0.4191381

Ukraine FDI Outflow and GDP.

The next element to comparing would be Ukraine's FDI outflows and GDP, period from 2000-2001.

Figure 13: FDI outflow and GDP in Ukraine. Correlation (2000-2020)



Source: own processing, source by World Bank 2021

The regression equation:

$$y = 0.0049x - 0.2679 \text{ where :}$$

y - endogenous variable, GDP

x - exogenous variable (FDI outflows)

a - Y-intercept = 0.0049

b - slope = 0.2679

Table 7: FDI outflow and GDP in Ukraine. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.72750602 | | | | | | | |
| R Square | 0.52926501 | | | | | | | |
| Adjusted R Sq | 0.50448948 | | | | | | | |
| Standard Error | 35.0928597 | | | | | | | |
| Observations | 21 | | | | | | | |
| <i>ANOVA</i> | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 26307.9992 | 26307.9992 | 21.3624126 | 0.00018599 | | | |
| Residual | 19 | 23398.6673 | 1231.5088 | | | | | |
| Total | 20 | 49706.6665 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | 83.6179618 | 10.4651028 | 7.9901711 | 1.7068E-07 | 61.71425 | 105.521674 | 61.71425 | 105.521674 |
| FDI outflows | 107.267491 | 23.2082809 | 4.62194901 | 0.00018599 | 58.6920006 | 155.842981 | 58.6920006 | 155.842981 |

Source: own processing, source by World Bank 2021

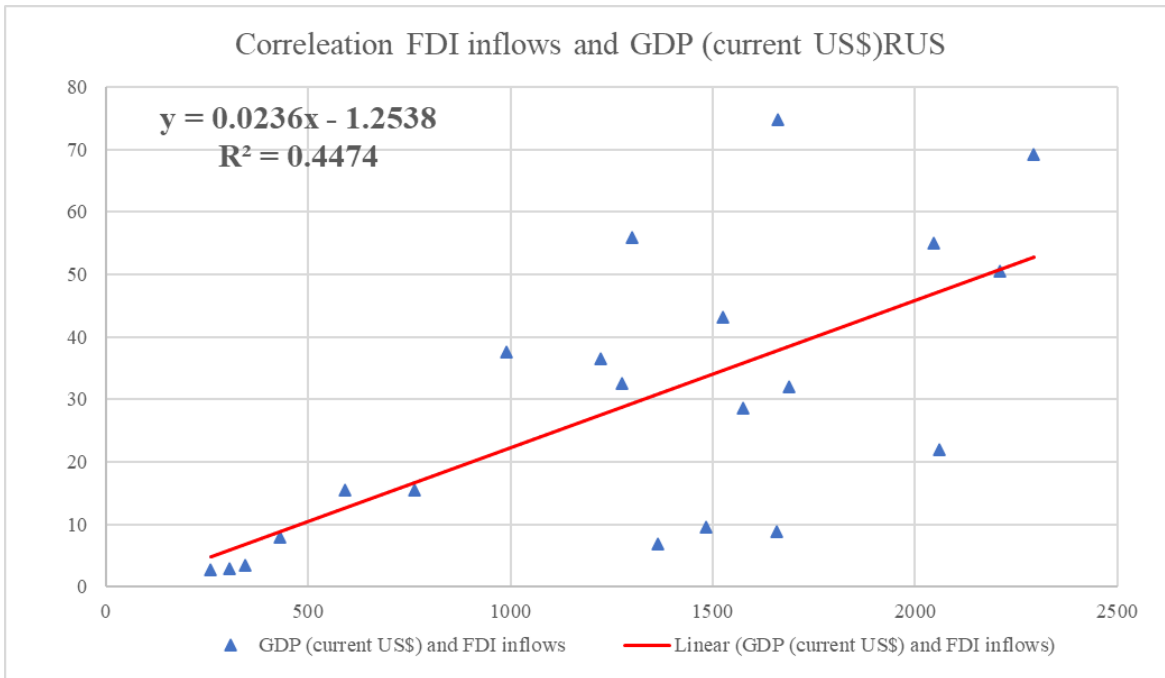
The coefficient of correlation equals 0.727506019

R-square is equals 0.529265008

Russian FDI inflows and GDP.

The author of this thesis, graphically explained the correlation fields between Russian GDP and FDI, using collected data from the World, the period from 2000 to 2020. Calculations are conducted in different phases: construction of the correlation field and linear-regression analysis.

Figure 14: FDI inflow and GDP in Russia. Correlation (2000-2020)



Source: own processing, source by World Bank 2021

Based on Figure 14, it is possible to identify a positive trend line. The correlation field is compactly located.

The regression equation:

$$y = 0.0236x - 1.2538, \text{ where :}$$

y - endogenous variable, GDP

x - exogenous variable (FDI Inflows)

a - Y-intercept = 0.0236

b - slope = 1.2538

Calculations of a linear regression analysis.

Table 8: FDI inflow and GDP in Russian. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.66886616 | | | | | | | |
| R Square | 0.44738194 | | | | | | | |
| Adjusted R Square | 0.41829678 | | | | | | | |
| Standard Error | 486.581794 | | | | | | | |
| Observations | 21 | | | | | | | |
| <i>ANOVA</i> | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 3641821.82 | 3641821.82 | 15.3817937 | 0.0009157 | | | |
| Residual | 19 | 4498475.01 | 236761.842 | | | | | |
| Total | 20 | 8140296.82 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | 735.468408 | 176.37441 | 4.16992697 | 0.00051979 | 366.312526 | 1104.62429 | 366.312526 | 1104.62429 |
| FDI inflows | 18.9852919 | 4.84076263 | 3.92196299 | 0.0009157 | 8.85345925 | 29.1171245 | 8.85345925 | 29.1171245 |

Source: own processing, source by World Bank 2021

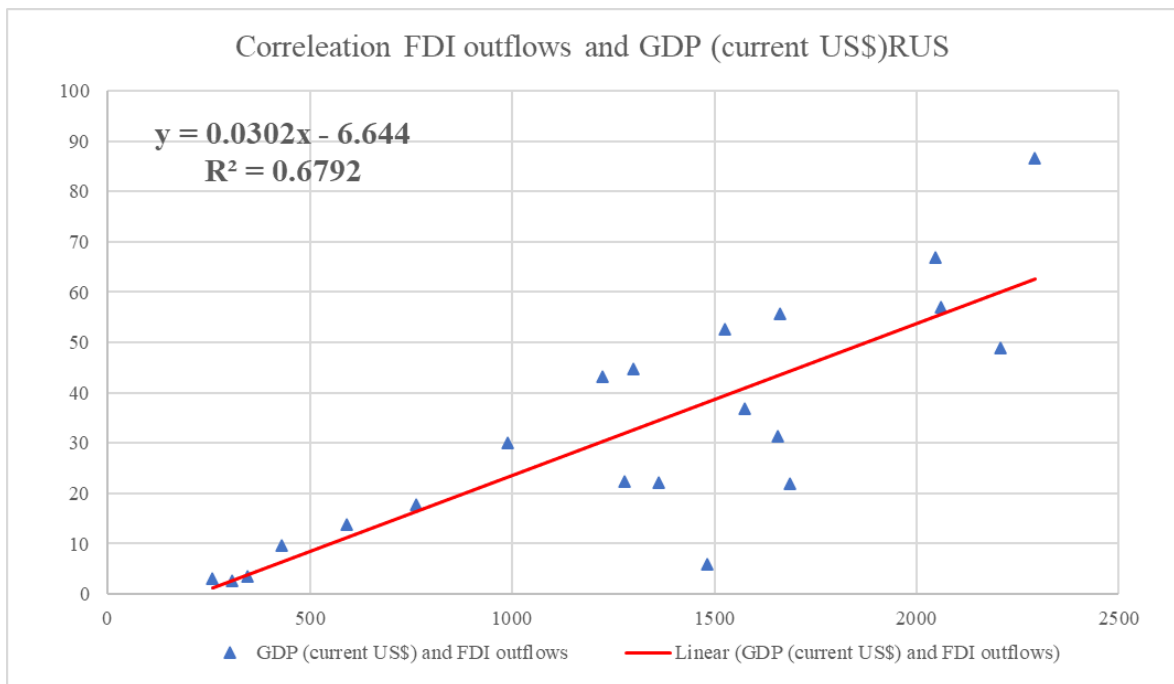
The coefficient of correlation equals 0.668866163

R-square is equals 0.447381944

Russian FDI Outflow and GDP.

The next element to comparing would be Russian FDI outflows and GDP, period from 2000-2001.

Figure 15: FDI outflow and GDP in Russia. Correlation (2000-2020)



Source: own processing, source by World Bank 2021

Based on Figure 15, it is possible to identify a positive trend line. The correlation field is compactly located.

The regression equation:

$$y = 0.0302 x - 6.644, \text{ where :}$$

y - endogenous variable, GDP

x - exogenous variable (FDI Inflows)

a - Y-intercept = 0.0302

b – slope = 6.644

Calculations of a linear regression analysis.

Table 9: FDI inflow and GDP in Russia. Linear regression analysis (2000-2020)

| SUMMARY OUTPUT | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.8241316 | | | | | | | |
| R Square | 0.67919289 | | | | | | | |
| Adjusted R Square | 0.66230831 | | | | | | | |
| Standard Error | 370.736471 | | | | | | | |
| Observations | 21 | | | | | | | |
| <i>ANOVA</i> | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 5528831.74 | 5528831.74 | 40.2256203 | 4.3738E-06 | | | |
| Residual | 19 | 2611465.09 | 137445.531 | | | | | |
| Total | 20 | 8140296.82 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | 562.678125 | 140.058988 | 4.01743675 | 0.00073628 | 269.531294 | 855.824955 | 269.531294 | 855.824955 |
| FDI outflows | 22.507576 | 3.54876589 | 6.34236709 | 4.3738E-06 | 15.0799236 | 29.9352283 | 15.0799236 | 29.9352283 |

Source: own processing, source by World Bank (2021)

The coefficient of correlation equals 0.8241316 R-square is equals 0.67919289

5 Results of analysis

Regression-correlation analysis shows a strong positive correlation between FDI inflows, FDI outflows with GDP in Belarus. Due to this analysis, it is possible to ascertain fact that Belarus has very strong relations between FDI and GDP. It is possible to assume that Belarus' economic growth depends on foreign direct investment. Moreover, Belarus's economy depends more on inflows than outflows.

Analysis of Ukraine shows close results to Belarus' case. Ukraine FDI inflows shows strong correlation with GDP. FDI outflows shows more strong positive correlation with GDP. it is possible to conclude that Ukrainian economy depend on Foreign direct Investment, and mostly of outflow.

Russian regression-correlation analyses shows the most strong positive correlation between FDI outflows and GDP. Also has positive correlation with FDI inflows and GDP. This means that the economic fortune of the country hangs on foreign investment.

Table 10: Summarizing Linear Regression Analysis of Economies Belarus, Ukraine and Russia 2000 -2020

| <i>Regression Statistics</i> | BLR | | UKR | | RUS | |
|------------------------------|----------|----------|----------|----------|----------|----------|
| | FDI inf | FDI out | FDI inf | FDI out | FDI inf | FDI out |
| Multiple R | 0.773301 | 0.689185 | 0.647409 | 0.727506 | 0.668866 | 0.824132 |
| R Square | 0.597995 | 0.474976 | 0.419138 | 0.529265 | 0.447382 | 0.679193 |

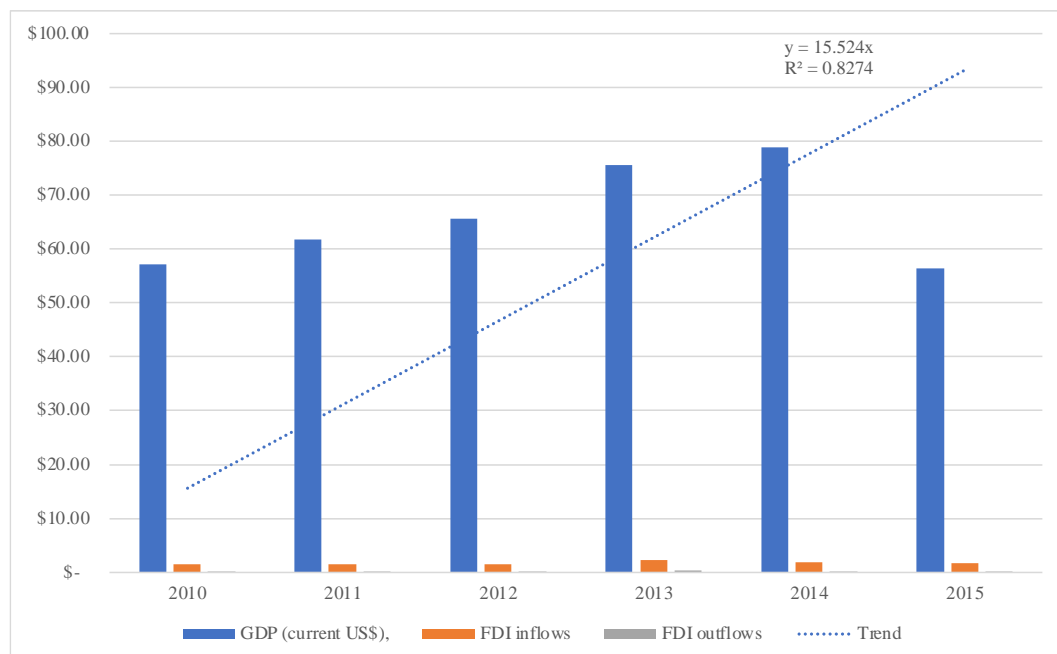
Source: own processing, source by World Bank 2021

It is important to mention that this research covered the period from 2000 to 2020. And its research does not consider changes in the economic environment and investment climate in the Republic of Belarus, caused by the ongoing political crisis.

The European Union (EU), in 2021, has introduced five packages of sanctions against Belarus and the Lukashenko regime. The sanctions concern imports of oil products and potash fertilizers from Belarus, as well as access of Belarusian banks to the EU capital markets. Furthermore, the new EU sanctions, in particular, will affect the export and transfer of equipment, technology, or software designed to be used in the interests of the Belarusian authorities to monitor or intercept Internet and telephone communications on mobile or fixed devices. Affecting the mining industry, mechanical engineering, aviation, which, in turn, will have a negative impact on the development of the economy and the investment climate. Since the majority of sanctions only take effect after the expiration of current contracts, it makes it impossible to assess the effect of these sanctions.

However, it is possible to review a similar situation with the sanctions imposed in 2010 and lifted in 2013.

Figure 16: GDP and FDI in Belarus during the sanctions, bln USD (2010-2015)



Source: own processing, source by World Bank (2021)

The EU adopted a package of economic sanctions in 2011. Excluding the “BelTransGas” LTD purchase price (2.5 billion USD), the volume of Belarusian FDI in 2011

amounted to 1.5024 bln. USD ($4.0024 - 2.5 = 1.5024$). The following year, the amount of foreign direct investment was already down by 3 percent compared to 2011. ($1.4636/1.5024*100 = 97.1746539\%$).

Nevertheless, the removal of sanctions against Belarus will begin in 2013. As a result, the removal of sanctions will lead to an improvement in the investment climate in Belarus. Foreign direct investment in Belarus at the end of 2013 amounted to 2.2461 bln USD, which is 53 % more than in the previous year ($2.2461/ 1.4636* 100 = 53.464\%$).

Furthermore, in addition to FDI, GDP has grown as well. The GDP growth in 2013 was greater than 14 %, compared to 2012. ($75.527984 / 65.68510255 = 114.98\%$)

By analyzing the period between the imposition of sanctions and their removal, it is possible to make several observations. The sanctions did have a negative impact on the investment climate in Belarus, which in turn, reduced foreign direct investment. However, the removal of EU sanctions has restored the flow and volume of FDI to Belarus. And also the removal of sanctions accelerated GDP growth.

According to the analysis, with the Normalization of relations between Belarus and the EU, and the removal of current sanctions, it is possible to expect an increase in FDI and GDP already next year, after the removal of sanctions.

6 Conclusion

From this thesis, it is possible to make the next conclusions.

Investment is a major element on which the economy and the welfare of the state, the development of production, entrepreneurship, and business are based. Investments are investments of capital in monetary, tangible, and intangible forms in the objects of entrepreneurial activity in order to obtain current income or to ensure an increase in its value in the future period.

The main directions of investment activity of the Republic of Belarus include - an increase in the volume of investments at the expense of foreign investment sources of economic operators. At the current stage of development of the Belarusian economy, the government pays special attention to attracting foreign direct investment (FDI) as an additional source of capital and technology for the development of national industries and services.

A significant share of foreign investment in Belarus at the end of 2020 comes from countries such as Russia, the UK and Cyprus. These three countries account for more than 50% of the total amount of foreign investments. Further significant are investors from China, the Netherlands and other countries.

Belarus also has its advantages and it is highly qualified labor resources. More than 93% of the population have basic, secondary and higher education, which shows the high educational level of the population and high qualifications of the employees. Thanks to its advantageous geographical position, it is an important transport and trade corridor between Europe and the CIS countries, despite the lack of access to the sea.

The problems of formation of a favorable investment climate and investment attractiveness of the Republic of Belarus are the low activity of processes of denationalization and privatization, the inefficiency of the innovation system, which does not allow the full use of available human potential and scientific development, administrative barriers to business development and a high level of administrative intervention of public administration in the activities of enterprises, not enough favorable investment. However, there is a certain sectoral unevenness of investment activity. New, primarily non-state, sources of financing are emerging. The share of investments attracted at the expense of bank credits and loans is growing.

The dynamic and efficient development of investment activities is a prerequisite for stable functioning and development of the country's economy and makes it possible to achieve competitiveness of the economy of the Republic of Belarus in the world market. In order to attract significant volumes of investments, including foreign ones, it is necessary to form an attractive investment climate and increase the investment attractiveness of the country.

The main objective of this thesis was to answer research questions, explain the concept of FDI, review trends over twenty years, identify significant advantages and disadvantages of foreign investment, and examine the relationship between FDI flows and GDP in the Belarusian economy compared to other economies, such as the Russia and Ukraine.

The selection of these countries for the analysis is related to several reasons: These countries were participants of the Soviet Union; these countries are not members of the European Union; as well as territorially neighboring countries to Belarus.

Of the three countries chosen for analysis, Russia ranks as the economic leader. The Russian economy is larger than that of Ukraine and Belarus combined. The Belarusian GDP is more than half the size of Ukraine's GDP and more than 25 times lower than Russia's GDP.

Moreover, based on the regression correlation analysis, can be concluded that Belarus, Ukraine and Russia are dependent on foreign direct investment.

It is important to note that statistical analysis, namely regression correlation analysis, does not provide a complete assessment of the impact of FDI and GDP.

The political situation in Belarus does not allow us to make long-term forecasts. In the process of writing this paper, the author faced the problem of finding relevant data in the state statistical organizations. The National Statistical Committee of the Republic of Belarus does not publish the most social and economically important data since 2020.

By the year 2021, it is complicated to evaluate the effect of sanctions applied by the European Union and the United States against state-owned companies and Belarusian government officials due to the long-term character of the sanctions and the unavailability of data for potential analysis.

For the first time in modern history, Belarus faced not just economic sanctions. In 2021, the EU imposed sectoral sanctions. Restrictive measures will affect the oil, potash, tobacco, and defense industries of Belarus, as well as the banking sector.

Nevertheless, after analyzing over the period from 2010 to 2014, when the European Union implemented economic sanctions, several conclusions can be made.

The sanctions are affecting the reduction of foreign direct investment inflows from Eurozone countries.

Besides reducing the inflow of foreign direct investment, the sanctions also have a negative impact on the investment climate in Belarus, for other countries in Europe and the rest of the world. The sanctions are also affecting the slowdown of GDP growth.

But it should also be noted that while the economic sanctions were canceled in 2013, there was a 53% increase in FDI inflows in the same year. The growth of GDP was 14% compared to the previous year when sanctions were imposed.

Therefore, it can be assumed that the normalization of Belarus' relations with the countries of the European Union will lead to the restoration of the inflow of foreign direct investment, an increase in goods turnover between the countries, and the balance of trade will also lead to GDP growth.

The directions of formation of a favorable investment climate and investment attractiveness of the Republic of Belarus should be - improving efforts to improve the investment climate; establishing international relations with European countries; improving the investment image and rating; creating an investment-friendly administrative area; creating an attractive infrastructure for investors and favorable tariff conditions; improving the formation of financial mechanisms to attract and support investment.

7 References

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8 Appendix

Appendix 1 — FDI, net inflows (BoP, current bln USD)

| FDI inflows in billion USD | BLR | UKR | RUS |
|-----------------------------------|------------|------------|------------|
| 2000 | 0.1188 | 0.595 | 2.67803 |
| 2001 | 0.0958 | 0.792 | 2.8473 |
| 2002 | 0.2471 | 0.693 | 3.47383 |
| 2003 | 0.1718 | 1.424 | 7.92863 |
| 2004 | 0.1638 | 1.715 | 15.40299 |
| 2005 | 0.3066 | 7.808 | 15.50805 |
| 2006 | 0.3571 | 5.604 | 37.59477 |
| 2007 | 1.8073 | 10.193 | 55.87368 |
| 2008 | 2.1879 | 10.7 | 74.78291 |
| 2009 | 1.8765 | 4.769 | 36.5831 |
| 2010 | 1.3934 | 6.451 | 43.16778 |
| 2011 | 4.0024 | 7.207 | 55.08363 |
| 2012 | 1.4636 | 8.175 | 50.58756 |
| 2013 | 2.2461 | 4.509 | 69.21889 |
| 2014 | 1.862 | 0.847 | 22.03134 |
| 2015 | 1.6523 | -0.198 | 6.85297 |
| 2016 | 1.2469 | 4.128 | 32.5389 |
| 2017 | 1.2763 | 3.68 | 28.55744 |
| 2018 | 1.4265 | 4.975 | 8.78485 |
| 2019 | 1.2733 | 5.796 | 31.97477 |
| 2020 | 1.3916 | 0.304 | 9.47881 |

Source: Processing according to World Bank, 2021

Appendix 2 — FDI, net outflows (BoP, current bln USD)

| FDI inflows in billion USD | BLR | UKR | RUS |
|-----------------------------------|------------|------------|------------|
| 2000 | 0.0002 | 0.001 | 3.17883 |
| 2001 | 0.0003 | 0.023 | 2.54104 |
| 2002 | -0.2062 | -0.005 | 3.53265 |
| 2003 | 0.0015 | 0.013 | 9.72395 |
| 2004 | 0.0013 | 0.004 | 13.78202 |
| 2005 | 0.0025 | 0.275 | 17.87965 |
| 2006 | 0.003 | -0.133 | 29.99315 |
| 2007 | 0.0152 | 0.975 | 44.80122 |
| 2008 | 0.0306 | 0.797 | 55.66261 |
| 2009 | 0.1023 | 0.115 | 43.28052 |
| 2010 | 0.0506 | 0.692 | 52.61627 |
| 2011 | 0.1255 | 0.192 | 66.85079 |
| 2012 | 0.1555 | 0.98 | 48.82242 |
| 2013 | 0.2622 | 0.43 | 86.50653 |
| 2014 | 0.0734 | 0.548 | 57.08218 |
| 2015 | 0.1066 | 0.038 | 22.08507 |
| 2016 | 0.1229 | 0.173 | 22.31433 |
| 2017 | 0.0678 | 0.234 | 36.75703 |
| 2018 | 0.0552 | 0.116 | 31.37688 |
| 2019 | -0.0038 | 0.621 | 21.92314 |
| 2020 | 0.077 | 0.362 | 5.847 |

Source: Processing according to World Bank, 2021

Appendix 3 — GDP (current bln USD)

| GDP in billion USD | BLR | UKR | RUS |
|---------------------------|------------|------------|------------|
| 2000 | 12.7389121 | 32.3752803 | 259.71 |
| 2001 | 12.3548201 | 39.309581 | 306.602 |
| 2002 | 14.594249 | 43.9563699 | 345.47 |
| 2003 | 17.8277913 | 52.0102387 | 430.348 |
| 2004 | 23.1443519 | 67.2201542 | 591.017 |
| 2005 | 30.2075673 | 89.2393701 | 764.017 |
| 2006 | 36.9543124 | 111.884752 | 989.931 |
| 2007 | 45.2773998 | 148.733861 | 1299.71 |
| 2008 | 60.7634831 | 188.111141 | 1660.85 |
| 2009 | 50.8740781 | 121.552777 | 1222.64 |
| 2010 | 57.2224908 | 141.209864 | 1524.92 |
| 2011 | 61.7577889 | 169.333049 | 2045.93 |
| 2012 | 65.6851026 | 182.592416 | 2208.3 |
| 2013 | 75.5279842 | 190.498811 | 2292.47 |
| 2014 | 78.81384 | 133.503411 | 2059.24 |
| 2015 | 56.4547344 | 91.0309595 | 1363.48 |
| 2016 | 47.7226578 | 93.3559936 | 1276.79 |
| 2017 | 54.7265952 | 112.09053 | 1574.2 |
| 2018 | 60.0312623 | 130.89105 | 1657.33 |
| 2019 | 64.4096472 | 153.882982 | 1687.45 |
| 2020 | 60.2582391 | 155.498989 | 1483.5 |

Source: Processing according to World Bank, 2021