Foreign Direct Investment in the XXI Century in Less-Developed Regions

Monografie – Politechnika Lubelska

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Wydawnictwo Politechniki Lubelskiej
Lublin 2018

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Publikacja wydana za zgodą Rektora Politechniki Lubelskiej

ISBN: 978-83-7947-355-7

Wydawca: Wydawnictwo Politechniki Lubelskiej
www.biblioteka.pollub.pl/wydawnictwa
ul. Nadbystrzycka 36C, 20-618 Lublin
tel. (81) 538-46-59

Druk: TOP Agencja Reklamowa Agnieszka Łuczak
www.agencjatop.pl

Elektroniczna wersja książki dostępna w Bibliotece Cyfrowej PL www.bc.pollub.pl
Nakład: 50 egz.

Spis treści

Introduction

This monograph has been developed within the framework of statutory research programme of the Faculty of Management, Lublin University of Technology in cooperation with Polish and foreign researchers. Foreign investments and their impact on the development of countries and regions invoke a lot of controversies and hot debates among scientists, policy-makers and legislators. Although, detailed assessments of their role in the development of national economies may differ, there is however a popular consensus that foreign investments are an important factor playing a crucial role in stimulating economic development, especially in less developed regions. Foreign investments generate many important economic and social benefits. Firstly, they mitigate developmental barriers caused by the lack of sufficient domestic capital, facilitate access to foreign credit lines and loans, as well as put pressure on legislators and decision makers to ensure and increase the stability and transparency of tax regulations and fiscal policies, customs policies, and the quality and stability of legal frameworks. Among numerous benefits brought about by foreign investments are also mentioned such benefits as the development of information infrastructure, new jobs, increased labour productivity, favourable external effects, strengthened comparative advantages, promotion of positive cultural and consumption patterns, improved image of a country and its regions and bettering their position in international rankings and other assessments. On the other hand, experts note that foreign direct investments carry a serious threat to national sovereignty and can harm the effectiveness of government's macroeconomic policies. Moreover, foreign investments may result in the influx of speculative capital and so-called "dirty" money, massive lay-offs, imports of outdated, environment-polluting technologies, tax evasion by foreign investors, and the spread of negative cultural and consumption patterns. In many cases, less developed regions fail to retain the value added created by FDI.

Based on a review of existing literature and studies on the role of foreign direct investments in the social and economic development, we conclude that still there is a lack of in-depth studies concerning the role of these investments in less developed regions. Most studies were carried out in developed areas. This monograph

is meant to alleviate this imbalance. We assumed that foreign direct investments being a carrier of scientific and technological progress, modern technologies, organizational improvements, and modern management methods, can be one of the important development factors in less developed areas and thus they can increase their competitive advantage.

Contributors to this book present their own research on foreign direct investments in selected regions of Poland, Russia, Brazil, Indonesia and Ethiopia. Numerous case studies show the regional specificity in attracting foreign capital and the specific role of foreign direct investments in economies of the above-mentioned countries.

In the first chapter of this monograph, entitled "*The Concept and Role of Foreign Investments*", Matylda Bojar discusses in a theoretical approach the basic research issues, which constitute the base for presenting the findings of empirical research in the next chapters of the monograph. The author paid particular attention to defining basic concepts and presenting the background of international flows of capital in the form foreign direct investments.

In the second chapter titled "*The Impact of Foreign Direct Investments on Innovativeness of Enterprises in the Lublin Region*", the authors Ewa Bojar and Jakub Bis attempt to assess the role of foreign direct investments (FDI) in stimulating and shaping the innovativeness of enterprises based in the Lublin region. They present the results of their questionnaire study carried out in the first quarter of 2018. The study investigated several aspects of business activity, including the implementation of innovation, research-and-development activities, and cooperation of enterprises on developing innovative solutions. The authors argue that FDI contribute to the growth of innovation of enterprises located in the Lublin region. Due to its specificity, this region is not attracting many foreign investment projects; in statistical terms here there are only 2.1 enterprises with foreign capital per 10,000 inhabitants, whereas the country's average is 6.9. The authors note that although FDI enterprises located in the Lublin region are mostly small and medium-sized enterprises, they are contributing significantly to the increase in regional innovation. According to their study, industrial enterprises spend on innovation about three times more than enterprises operating in the services sector. The study also shows that enterprises located in the Lublin region willingly invest in research-and-development projects. Usually, FDI are perceived as innovative projects which contribute to technological transfers and international know-how flows. This in turn improves the efficiency of enterprises. Over the last three years, only one out of three enterprises included in the study did not carry out any product-related innovations, while almost one in four implemented global-scale innovations. As far as process-related innovations is concerned, especially organizational and marketing innovations, the situation is much better. The study revealed that about 80% of enterprises have implemented at least one such innovation. Merely one

in five enterprises carried out research-and-development works or research on innovation within the Lublin region. The situation is compounded by the fact that in the views of enterprises covered by the study, the scientific institutions fail to provide them with necessary assistance in developing and implementing innovations. Hence, there is a lot of room for improvement in this sphere. This may be a starting point for a debate on regional innovation and the ways how it could be increased to make the region more competitive.

Generally, in opinions of the questioned enterprises, innovative activity focused on expanding their offerings, improving the quality of offered products and services, as well as bettering their productivity can bring them the most benefits and financial gains. They also recognized that innovation could help them retain and then improve their market position and even enter new markets.

The third chapter co-authored by Eulalia Skawińska and Joanna Wyrwa, includes a case study *"The Role of Foreign Direct Investment in the Regional Sustainable Development of Lubuskie Voivodeship"*. The authors examine the size and structure of the inflow of FDI to Lubuskie Voivodeship in the context of regional sustainable development. The authors also analyse regional policies towards attracting FDI and monitoring their impacts from the perspective of sustainability. In both cases the authors applied the methods of benchmarking, secondary source review, as well as visualization and description. The chapter describes the size, dynamics and the structure of FDI inflow to Lubuskie Voivodeship in the years 2000-2016 in comparison with relevant national data. The authors put forward the conclusions and outlined future challenges that regional governing bodies are facing, including challenges related to monitoring the compliance of the foreign investments profile with regional sustainable development goals. They also emphasize the need for a more active regional policy, including measures and activities promoting investing in the Lubuskie region.

In the fourth chapter, entitled *"The Role of Foreign Direct Investment (FDI) in the Łódź Region"*, Jerzy Różański presents the view that increasing liberalization of the world economy and tendencies related to globalization make foreign direct investment a very popular way of investing capital surpluses abroad. In Poland, since 1989, there has been a rapid increase in the number of foreign investors and invested capital. In investment attractiveness rankings, the Łódź Region occupies the 7th or 8th position among all 16 Poland's regions. Therefore, it can be considered to have typical conditions for investing. The author's research conducted in 2015 shows that foreign investors play a significant and constantly growing role in the region. This statement refers to both the quantity and the value of investments, the role of foreign enterprises in reducing regional unemployment rates, investments made by subsidiaries of foreign enterprises, as well as achieved financial results – which translates into paid taxes.

The next chapters have been contributed by foreign scholars. In the fifth chapter, entitled *"Foreign Direct Investment and Regional Economic Growth: Empirical Evidence from Provincial Data in Indonesia"*, Satriyo Budi Cahyono, Arvinder Singh Chawla and Subagio Effendi present a case study in which they examine the impact of the set of input variables on regional economic growth at a provincial level in Indonesia. In the study, the authors employed the unbalance panel data located over 34 provinces in Indonesia over the years 2006-2016. Using the Cobb-Douglas function model, they found that foreign direct investment located over Indonesian provinces along with domestic investment and total employment positively contribute to regional economic growth in full sample analysis. In group of island analysis, they found that foreign direct investment and total employment consistently show a positive contribution to the regional economic growth. Likewise, domestic investment also exhibits similar relationship in almost all of provinces. Surprisingly, provinces in the Bali and Nusa Tenggara group of islands indicate a negative impact of domestic investment on the regional economic growth, though FDI still have a positive impact on the regional economic growth.

The sixth chapter *"The Role of Foreign Direct Investment in Ethiopia"*, contributed by A.S. Chawla and Wasihun Tiku, contains another case study. The authors note that over the past three decades a fundamental shift has been occurring in the world economy. They argue that nowadays we are moving toward a world in which barriers in cross border trade and investment are declining, perceived distance is shrinking because of advance in transportation and telecommunications technology, material culture is starting to look similar all over the world, and national economies are merging into an interdependent, integrated global economic system. The world is increasingly accepting the fact that private capital has a vital role to play in economic development. Foreign direct investments contribute to capital accumulation and technological progress and are an imperative catalyst for industrial development. In their study, the authors analyse the trends and impacts of foreign direct investments on the Ethiopia's economy over the period of 2000-2014. Using secondary data, the study employed time series data and applied trend analysis, annual growth rate, compound growth rate and the ordinary least square (OLS) method. The authors note that the FDI inflows to Ethiopia are unevenly distributed between regions. Over the time span covered by their study, an average contribution of FDI to gross domestic product (GDP) in Ethiopia was equal to 2.34%. In conclusion, the authors recommend that Ethiopia's government increase its efforts to attract more foreign investments, mainly through infrastructural improvements, promoting local skill development, financial incentives for investors, devaluating Ethiopia's currency, increasing national savings, and other economic reforms improving investment climate in Ethiopia.

The seventh chapter entitled *"The Problems and Prospects of Development of International Joint Business in Russia"* was contributed by L.A. Voronina and

M.V. Pleshakova. The authors describe complex issues related to the establishment and development of international joint ventures in the Russian Federation's economy. They also present the dynamics and the structure of joint ventures and their sectoral and geographical distribution. The authors also pointed to many benefits resulting from this form of cooperation between businesses operating in a market economy.

The last two chapters of the monograph are devoted to Brazil. In the eighth chapter, Luiz César Fernandes and Francisco Diniz note that for the last 90 years, the Brazilian economy has been undergoing the process of internationalization through trade and financial liberalization, and removal of measures restricting activities of foreign capital. It was widely expected in Brazil that reforms aimed at creating a more favourable economic environment would attract significant inflows of foreign direct investment and thus would contribute to offsetting the balance of payments and finance the current account deficit. This chapter includes an in-depth analysis of FDI in Brazil and their impacts on the Brazilian economy.

In the final, ninth chapter of the monograph, Diogo Albuquerque and Geraldo Reis present the case study *"Minas Gerais – Brazil – Foreign Investments: Chances and Threats"*. Their considerations are focused on foreign direct investments made in the Brazilian State of Minas Gerais. The chapter begins with a short but necessary contextualization of Brazil and comparisons with Poland. Then, the authors present some data and information about foreign direct investments in Brazil and Minas Gerais, especially their country of origin and locational and sectional distribution of investments. Finally, in a short conclusion the authors argue that the State of Minas Gerais has made a choice to stimulate and develop technological industrial projects.

Matylda Bojar[1]

1. The Concept and Role of Foreign Investment

Introduction

The strengthening of mutual trade, investment, and production links between countries and their economies contributes to the creation of a single global market. Entrepreneurs, having observed processes occurring in the economy, such as fast growing transport infrastructure, knowledge flows, and the liberalization of international trade, oftentimes change their business strategies and expand business to new overseas markets by means of making foreign direct investment (FDI). In doing so, entrepreneurs seek mainly new markets for their products and cheaper production factors (Pilarska, 2005, p.5), as well as try to decrease their financial burdens, chiefly by means of tax optimization (Humanicki, 2018). This results in the growing flow of financial resources, human capital, knowledge, technology, know-how, management and work organization skills, as well as sales techniques between countries (Bojar, 2008, p. 14).

It is widely agreed that capital in the form of direct investments is one of the most beneficial and safe forms of investing in a foreign economy. This form of capital is characterized by a longer time perspective, stability and lower susceptibility to changes in economic situation on international financial markets (Pilarska, 2005, p.12). Some authors also argue that FDI can complement domestic capital, provide host economies with new technologies, and strengthen the cooperation, production and technological links between domestic and foreign enterprises. Thus, foreign direct investment generate mutual benefits for investors and host economies. They also reduce the gap between the actual size of domestic investments and investment demand in a host economy. Moreover, FDI generate new jobs in host economies. Therefore, it can be said that direct investment constitute a solid base for a resilient growth of host economies (Michałków, Rybak, 2004, p. 16); they are also an important measure of globalization of world economy.

Being conducive to the process of globalization, FDI is also an important way of acquiring modern technologies and improving qualifications in regions, and therefore they are an important regional development factor (Bojar, 2001, p.19).

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1.1. Selected Definitions of Foreign Direct Investment (FDI)

In literature there are many definitions of foreign direct investment. However, due to the lack of universal, commonly accepted definition, most authors use definitions worked out by international institutions, which collect and analyse data concerning FDI, and then modify them according to their particular needs.

Nowadays, the global standard for direct investment statistics, used by the growing number of countries, is a document developed by the Organisation for Economic Co-operation and Development (OECD) – The Benchmark Definition of Foreign Direct Investment (Benchmark Definition) (OECD, 2008) and the standard worked out by the International Monetary Fund (IMF) which concerns balance of payments and international investment position (IIP) (IMF, 2007). Moreover, in analysing foreign direct investments the System of National Accounts, referred to as SNA 2008, and its European equivalent – ESA 2010 are also used.

According to the shortest descriptive definition, a foreign direct investment, or FDI, is a unit – an enterprise – which was established thanks to a foreign direct investment or was supplied with foreign capital (Karaszewski; 2004, p.22). A foreign direct investor may be a natural person, as well as a private or state-operated enterprise, and a group of natural or legal persons, which own a direct investment enterprise (Pilarska; 2005, p.10).

According to a classic definition, FDI is a form of long-term capital investments which are made to gain profits through the lasting impact on managing production activity of an enterprise located in a country other than the one where the investor is permanently headquartered (Czerwiec, 1990, p. 9; Agiomirgianakis et al., 2003).

P. Krugman and M. Obstfeld (Hirshleifer, 1965) define foreign direct investment as international transfers of capital made in order to set up and control a branch in other country. J. H. Dunning (Dunning; 1998, p.71) and J. Cantwell (Cantwell, 1993 p. 303) define foreign direct investment as capital investments made with the intention of obtaining a direct influence on business operations of the receiving enterprise, or as transferring additional funds to the enterprise in which an investor has already significant shares.

I. Michałków and N. Rybak define direct investment as starting from scratch an economic activity in other country or taking control over an already existing enterprise (Michałów, Rybak 2004, p.14).

Foreign investments are especially important for those countries where savings are insufficient to satisfy potential demand for investments. Foreign capital can be a way to reduce payment balance tensions, as well as an important factor stimulating fast growth. A. Stępniak points out that the essence of FDI consists in taking over, setting up or expanding the production or service potential of an enterprise run in a foreign country (Stępniak 1996, p. 79). Oftentimes FDI contribute to the setting up enterprises to manufacture products which were earlier

imported (Dowgiałło, 2004, p.152). E. Skawińska and R. Zalewski (2017, p.3) argue that nowadays the term of FDI encompasses both tangible production assets and financial capital (shares, deposits), as well as intangible assets such as intellectual property rights, for example licences, know-how, innovations, and organizational solutions and management techniques. Hence, the essence of FDI is the transfer of these assets to the host country's economy, which is also referred to as a direct investment place, recipient country or FDI importing country. According to a definition proposed by E. Bojar (Bojar; 2006, p.17), FDI is a form of long-term capital investments made overseas which consists in establishing from scratch a new enterprise (so-called greenfield investment) or buying out shares which allow the investor to exert a controlling influence on the firm's decisions. In other words, FDI consist in taking over companies or shares by foreign entrepreneurs, for example in the process of privatization, and forming new companies from scratch. It ought to be noted here that a direct investment enterprise is an enterprise in which the foreign direct investor owns at least 10% of ordinary shares, or has 10% of the voting power at the general assembly of shareholders, or otherwise can effectively control the management of this enterprise (Bojar, 2008, p.15). According to other definitions, direct investment occur when an investor in a foreign company maintains a significant degree of control in the process of making decisions concerning generating profit in that company (Jodkowski, 1995, p.7).

W. Karaszewski proposed a definition embracing all the above-mentioned referents of the term FDI (Karaszewski et al. 2016). Karaszewski claims that foreign direct investment is a capital investment (deposit) made outside the country of investor's permanent residence in order to gain profits resulting from economic activity carried out in that country. Foreign direct investment is a cross-border flow of capital which allow investors to exert a direct and lasting participation in the management of the business supplied with capital. An investment is considered direct and an enterprise is deemed a direct investment enterprise when the investor has – directly or indirectly – at least 10% of the vote in the enterprise's governing body.

In the absence of a unified, commonly recognized definition of FDI, an important determinant for identifying which enterprise is a direct investment enterprise is the purpose of its operation.

A. Cieślik argues that direct investment does not only serve as a transfer of capital to a foreign enterprise. Financial capital transfers are linked with relocation of production factors overseas where they can be used in a more efficient way and thus lead to gaining by investors a competitive advantage on a foreign market. Therefore, it is vitally important that issues connected with managerial control are also included in the FDI definition. As a consequence, FDI should not always be identified with investments in economic or accounting sense. We also deal with

foreign investment when residents from one country gain managerial control over investment in other country (so-called receiving country) (Cieślik, 2005, p. 24).

Therefore, it can be stated that the goal of foreign investment is gaining a lasting influence on the management of a foreign business, in particular a more efficient use of available resources, and the distribution of earned profits. In this process, investors tightly control the flows of financial capital, knowledge, as well as technical and physical assets, which enable them to make the most of their competitive advantage on a foreign market (Bojar 2001, p. 19; Stawicka 2007, p.16). Investors, through their foreign direct investments, can also seek dividend or cheaper raw materials, production components and semi-finished products to improve the productivity, or take control over competition (Michałków, Rybak, 2004, p.15).

1.2. The Forms of FDI and Investors' Motivations

Foreign direct investment (FDI) can be made in a variety of different forms. These can include a purchase of tangible assets, such as real estate and equipment, or taking control over a foreign enterprise and its management (Buckley 2002, p. 94).

According to a study carried out by A. Buckley (2002, p. 94), FDI can take the following forms:

- expanding the operations of subsidiaries or branches existing abroad;
- setting up a new enterprise (branch or subsidiary) in other country;
- purchasing the entire foreign enterprise or its assets.

A collation of the most typical forms of foreign investments is included in Table 1.1. below.

Table 1.1. Legal and *organizational forms of foreign investments*

1	Subsidiary enterprises	Establishing a new or taking over existing enterprise by a parent company which retains full control over that enterprise.
2	Branches	Branches are not independent business establishments and therefore cannot be registered abroad as independent entities (branches are not legal entities).
3	Affiliate enterprises	Affiliated enterprises are legal entities and thus are subject to registration in investment receiving countries as independent business units with their own statutes/articles of associations. A parent company can own less than 100% of their shares.
4	Take up shares	Taking up shares in an existing foreign enterprise or setting up a joint venture with other partner(s).
		Various production and/or staff training arrangements, transfer of licences, patents, know-how, copyrights in exchange for shares.
5	Loans, credits, donations to foreign enterprises, reinvested profits	

Source: E. Bojar, Bezpośrednie inwestycje..., op. cit., pp. 21-22

Taking into consideration an investor's perspective, Caves (1971) drew a distinction between horizontal investments, vertical investments, and conglomerates. This division refers mainly to the way in which foreign direct investments are integrated with activity of the parent enterprise (Cieślik, 2005, p.27).

Horizontal investments consist in a horizontal expansion of the business and their purpose is manufacturing the same or similar goods abroad. The main motive of these investments includes a better exploitation of monopolistic or oligopolistic advantages, in particular in case when investors are restricted by the antitrust law in their countries (Moosa, 2002, p.4). Horizontal investments are connected with an acquisition of enterprises which operate in the same networks, sectors, and branches. This means that industrial plants, regardless of their location, manufacture the same goods or offer roughly the same services. Although horizontal investments are more frequent in the sector of services, they are also fairly often observed in manufacturing and processing industries. While horizontal FDI are investments where firms duplicate the same or similar activities in other countries, vertical FDI are investments, where firms in order to maximize their profits locate different stages of production in different countries.

Conglomerates are typical for companies operating in different sectors. A conglomerate is the combination of two or more companies which oftentimes operate in entirely different industries. Usually they are made up of a parent company and many subsidiaries. Conglomerates are formed to diversify risk and benefit from the scale of business operations (Cieślik, 2005, p.27).

1.3. Motives for Making Foreign Direct Investment

The development of contemporary world economy for more than 20 years has been driven by the ever-increasing flows of foreign direct investments and the overall growth of cross-border investments is one of the most characteristic trends of the global economy. Since FDI is a source of capital needed for economic development, allow the flow of the most recent technologies between economies, and ensure access to international (global) markets, countries are trying to outrun each other in an effort to attract more and more foreign investors (Frejtag-Mika, 2009, p.63). In theory, foreign companies may have a positive impact on the economic performance of host economies (Gál, Schmidt, 2017). The connections between sustainable economic development and direct investments are multidirectional and these links vary in intensity. Since these connections can be either direct or indirect, positive or negative, this can create problems in formulating unambiguous and subjective assessments of FDI on the economy of host countries Skawińska, Zalewski, 2017, p.2).

Investors' motives may vary immensely. Foreign investors in making their investment decisions take into consideration a wide spectrum of factors and circumstances, which often result from a specificity of their business, as well as investment climate in other countries (Kolarz 2006, p.42).

Foreign direct investment has long been considered as an important conduit which enables the transferring of capital and technologies from highly developed countries to less developed economies, including countries undergoing transformations. Their role economy is significant and in many cases crucial.

Existing theories distinguish different factors which can affect investors' decisions concerning their investment's location (Skawińska, Zalewski, 2017, p.3). There is a widespread consensus that J.H. Dunning (Dunning, 1993) was right in identifying the following conditions which should be jointly met for a foreign direct investment to occur: the presence of ownership – specific competitive advantages in a transnational corporation (TNC), the presence of locational advantages in a host country, and the presence of superior commercial benefits in an intra-firm as against an arm's-length relationship between investor and recipient (Dunning 1993). E. Bojar argues that for foreign investors vitally important are such factors as economic, political and social situation, legal regulations, and spatial organizational system (Bojar, 2001, p. 23). A country's investment attractiveness is oftentimes perceived through the prism of its economy and economic outlook, as well as legal framework as it relates to economic activity. According to data presented in the UNCTAD's 1998 report Trends and Determinants (UNCTAD 1998, p. 91), a country's investment climate is shaped by the following three group of factors: state policy towards FDI, economic conditions, and social and institutional conditions.

The term "state policy towards" FDI includes the following components: economic, political and social stability; regulations concerning the influx of investments and conditions of making financial investments, regulations on setting up branches of foreign corporations; market functioning and structure (competition, take-overs, acquisitions and mergers); international agreements on FDI, as well as privatisation, fiscal, and foreign affairs policies (tariff and non-tariff instruments).

Institutional and social conditions include legal conditions, incentives for investors, special economic zones (SEZ), and a level of red tape and corruption (UNCAD, 1998, p.91).

The most important determinants concerning location of foreign direct investments are economic determinants. These can be divided into the following three groups: seeking new markets, seeking resources and efforts to increase productivity (Gorynia 2005, pp. 40-43).

Table 1.2. *Foreign investment location motives.*

Main factors in host countries			
Host country determinants	Legislative conditions	- Political and social stability - Market entry regulations - Standards concerning treatment of foreign companies - Market structure and policy towards functioning of markets - International agreements concerning FDI - Privatisation policy - Trade policy (tariff barriers and non-tariff instruments) - Fiscal policy	
	Economic factors	Market-seeking	- Market size - Income per capita - Market growth - Access to regional and global markets - Specific preferences of consumers - Market structure
		Resource/asset-seeking	- Availability of raw materials - Unskilled, cheap workforce - Technological assets, innovations - Infrastructure (ports, roads, telecommunication)
		Efficiency-seeking	- Cost of resources - Other costs, for example communication and transport costs, including domestic and international transport, cost of intermediate products
	Business conditions	- Promotion of investments - Investment incentives - Costs connected with corruption and red tape - Social conditions and the quality of life - Services to investors	

Source: Based on World Investment Report 1998: Trends and Determinants, UNCTAD, p. 91. M. Gorynia, Strategie firm polskich wobec ekspansji inwestorów zagranicznych, PWE, Poznań 2005, p. 42

In literature there are different classification of investors' motivations. For example, J.H. Dunning (Dunning 1993) point to the following four groups of motives driving investors' decisions (Kłysik-Uryszek 2010, pp.65-66):

- market seeking,
- resource seeking,
- efficiency seeking, and
- strategic asset seeking.

Table 1.3. *Basic types of FDI according to investors' motivations*

	Investment type	Components	Description
1	Market seeking	Domestic markets and neighbouring markets	FDI, whose aim is to serve local and regional markets.
2	Resource seeking	Physical resources, labour force, intangible resources	Occurs when firms invest abroad to obtain resources not available in the home country, such as natural resources, raw materials, or low-cost labour. Particularly in the manufacturing sector, when multinationals directly invest in order to export, factor-cost considerations become important.
3	Efficiency seeking	Horizontal and vertical	The reason for horizontal FDI is to better serve a local market by local production, market size and market growth of the host economy play important roles.
4	Strategic asset seeking	Access to information and technologies, organizational, marketing and distribution techniques, access to markets and business networks.	This type of investment takes place when the firm can gain from the common governance of geographically dispersed activities in the presence of economies of scale and scope.

Source: A. Golejewska, Bezpośrednie inwestycje zagraniczne a proces restrukturyzacji gospodarki. Aspekt teoretyczny, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2008, p. 22.

J. Witkowska (Jóźwik, Miłek 2007, p. 48) proposed a slightly different approach to investors' motivations. Witkowska distinguished three groups of these motivations, i.e. motivations relating to a market, costs, and accessibility of resources (cf. Table 1.3. below).

Table 1.3. *Motivations of investment decisions*

	Kind of factor	**Factor description**
1	Costs	Cost-related factors, also called production considerations or rationalization of production, result from significantly lower costs of labour, raw materials, and/or production components available in a host country.
2	Market (marketing)	These factors concern acquiring, maintaining and expanding markets for investor's products. These type of motives drive so-called offensive investments which goal is to acquire new markets and/or strengthen investor's market position. Defensive investments occur when the firm's present market position to a certain degree is threatened due to the reasons which are beyond its control, i.e. resulting from market fluctuations and/or changes in the business environment.

	Kind of factor	Factor description
3	Supplies	This type of factors is associated with the need to ensure reliable and timely supplies, proper access to technologies in a host country.

Source: Worked out by the authors based on: B. Jóźwik, D. Miłek, Działalność inwestycyjna firm brytyjskich w Polsce, Studia i Materiały Instytutu Zarządzania i Marketingu Katolickiego Uniwersytetu Lubelskiego; t. 8, Wydawnictwo KUL, Lublin 2007, p. 48.

W. Karaszewski, based on a study on German enterprises, listed the following motivations of foreign direct investors (Karaszewski 2004, pp.142-144)

- creating new sales markets,
- stability of potential and existing sales markets,
- increase in competitiveness conditioned on semi-finished products manufacturing,
- longer working hours,
- lower import barriers,
- better access supplies and resources, and
- lower administrative barriers and lesser environmental fees.

The functioning of enterprises in a free market economy, both in a home country and abroad, to a large extent is conditioned on the economic environment which ultimately determines market success or failure. Hence, all changes occurring in their close as well as further economic environment may potentially create both opportunities and threats for enterprises and therefore they should be properly identified and interpreted by their managements in order to respond accordingly (Starzyńska, 2012, p. 57).

Foreign investors attach great importance to a host country's approach toward foreign investments. In an effort to draw foreign capital, governments develop policies aimed at creating favourable investment climate. These policies include various investment incentives as part of a country's industrial policy as a tool supporting regional development (Bojar, 2001 pp. 24-25). Table 5 below presents the most frequent factors – which in the view of potential investors – encourage and discouraging them from investing overseas.

Table 1.4. *Factors encouraging and discouraging investing abroad – an investor's perspective*

Encouraging factors	Discouraging factors
Economic, social and political stability in a host country.	Unstable business regulations.
Efficient business supporting institutions.	Excessive formal requirements applied to foreign investors, e.g., concerning environmental issues, quality, documentation, etc.
Well-developed infrastructure, including communication, and telecommunication infrastructure.	Low assessment of host's country economy and poor economic outlook.
Efficient information system.	Inefficient information system.
Reliable potential local contractors (suppliers, customers, intermediary units).	Unreliable contracting parties, staffing problems.
Lack or weak position of organizations protecting employees' rights.	Strong trade unions.
	Burdensome bureaucratic procedures.
Internal factors	External factors
Condition and structure of production facilities and economic infrastructure.	Access to absorptive sales markets in highly industrialized countries.
Investment and accumulation capacity of the real and human capital.	Access to international financial markets.
State of development of science and technology.	Economic connections.
Organization and management of host country's economy.	Geopolitical situation.
Government economic policy.	Degree of utilization of international capital (mainly direct investments of transnational corporations).
Education level and workforce qualifications.	

Source: Workedout by the author based on: J. Różański, Analiza czynników ułatwiających i utrudniających działalność inwestora zagranicznego w kraju goszczącym (na przykładzie Polski) [In:] E. Bojar (Ed.) Bezpośrednie inwestycje zagraniczne (BIZ) w regionach słabo rozwiniętych – studium porównawcze Polski i Irlandii. Efekty i zagrożenia, Dom Organizatora, Toruń 2008, p. 61, S. Wydymus, E. Bombińska, B. Pera, Bezpośrednie inwestycje zagraniczne a konkurencyjność eksportu Polski, CeDeWu Wydawnictwa Fachowe, Warsaw 2012, p. 18.

Unfortunately, experiences of national economies regarding attracted FDI are not always positive. In many cases negative opinions result from pathological activities of some investors. Based on a study, J. Różański (2008, pp. 62-63), observed such negative trends as using FDI as a way to supress or eliminate local competition or gain fast return on capital at a lowest possible cost. Moreover, some studies show that investors demonstrate disrespectful treatment of their employees

working in local enterprises and inappropriate attitude to contracting parties. In many cases this results from the fact that investors chose run local enterprises in a way enabling them to shut down local business at any time. In many cases foreign investors have also excessive expectations as concerns support from local authorities in a host country, which cannot be satisfied. These situations may ultimately lead to negative reactions in a host country as well as provoke negative feelings and criticism in local communities. This may further deteriorate investment climate and investing conditions in a host country.

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2. The Impact of Foreign Direct Investment on Innovativeness of Enterprises in the Lublin Region

Introduction

Presently, innovativeness of enterprises located in a given region is a key factor of continuous economic development of this region. Usually innovations are more often worked out and implemented by big organizations, in particular those operating globally. By far less innovations is developed by small and medium-sized entities which carry out a sort of informal research-and-development activity. Usually, due to limited financial resources they are also less willing to take advantage of consulting services, purchase licences or use high technologies than big enterprises.

It is common knowledge that foreign direct investment bring in to enterprises new technologies, modern management methods, as well as knowledge and expertise which is conducive to the growth of innovation of the economy. Since the Lublin region attracts relatively small amount of foreign capital in the form of FDI, the authors asked a question on the role and the level of innovativeness of these investments in the region. The purpose of this paper is to verify a hypothesis that foreign direct investment FDI has an impact on innovativeness of enterprises in the Lublin region.

2.1. Foreign Capital and Innovation of Enterprises

The first unified definition of the foreign direct investment (FDI) as an economic category was proposed at the turn of the 20th and 21st century by the International Monetary Fund (IMF) in collaboration with the Organization for Economic Co-operation and Development (OECD). According to the Benchmark Definition of

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Foreign Direct Investment developed by the OECD direct investment is a category of international investment made by a resident (the direct investor) with the objective of establishing a lasting interest in an enterprise (called the direct investment enterprise) that is resident in an economy other than that of the direct investor. Foreign direct investors are characterized by a strategic approach to investments they make and their motivation is to ensure a long-term relationship with the direct investment enterprise. According to the OECD, the lasting interest takes place when the direct investor owns at least 10% of ordinary shares in the direct investment enterprise or at least 10% of the voting power at the general assembly of shareholders of the direct investment enterprise (OECD, 2008, pp. 40-41).

Innovations and their diffusion significantly increase competitiveness of the region where they occur (Zakrzewska-Półtorak, 2007, p. 27). Import of modern technologies, influx of foreign direct investments, and accumulation of foreign capital are also playing a crucial role in this process. Many authors argue that FDIs have a significant impact on innovativeness of enterprises. For example, E. Tomiura (Tomiura, 2003, p. 2) based on data gathered in more than 118,000 Japanese production plants confirmed a strong correlation between the flow of foreign direct investment into Japan and the growth of research-and-development outlays. Moreover, J. Bodanienko (Bogdanienko, 2004, p. 82) observed that FDI enterprises are often characterized by a high level of technical innovation they carry, which in many cases is coupled with modern management methods as well. This is an obvious manifestation of international innovation transfers and an important factor conducive to maintaining competitive position on the market by enterprises. Also M. Kolarz (Kolarz, 2006, p. 9) argue that FDIs help enterprises improve the use of available resources in their research-and-development activity.

2.2. Theoretical Conceptions of Innovation and Innovativeness

Since the phenomenon of innovation occurs in many spheres of human activity, in literature there are many different definitions of innovation. Depending on the nature of innovation, its implementation takes different amounts of time and resources, different are also effects for the innovating enterprise and its environment.

According to a general definition, an innovation is something new, for example new product or invention. According to Joseph A. Schumpeter, who gave the first definition of innovation, an innovation may be a new product or improved quality of existing ones, as well as new production processes and technologies and improvements in production. Schumpeter claims that the term innovation also includes the opening of a new market, new way of selling or purchasing products

and services, a change of raw materials, production components and semi-finished products, as well as new organization of production process (Schumpeter, 1960, p. 322). Likewise P.F. Drucker claims that a change in organization or management methods can also be considered an innovation (Drucker, 1992, pp. 42-43).

Ch. Freeman argues that an innovation is also the application in sale of a new product, device or process. In turn, E. Mansfield believes that an innovation occurs when an invention is applied for the first time (Bielski, 2000, p. 12). According to P. Kotler, every good, idea or service perceived by someone as something new can rightly be termed as innovation (Kotler, 1994, p. 340). A variety of definitions clearly shows that giving a precise definition of innovation is a difficult task, usually an innovation is associated with creative change. The key components of creativity are intellectual abilities, knowledge, preferred thinking style, personal traits, environmental factors affecting individuals, and motivation. Creativity may stem from individual personal traits as well as from a characteristics of a group of people, which allows creating something quite new, earlier non-existing, or something which is not part of the enterprise. Based on huge data bases containing historical data and information on the tasks and actions performed by employees we can create something quite new which can improve peoples' performance. Sometimes it can be an advanced invention, and sometimes only a change in the position of the body or the order of performed actions. Creativity always co-exists with the creative process, which can be divided into the following four basic stages:

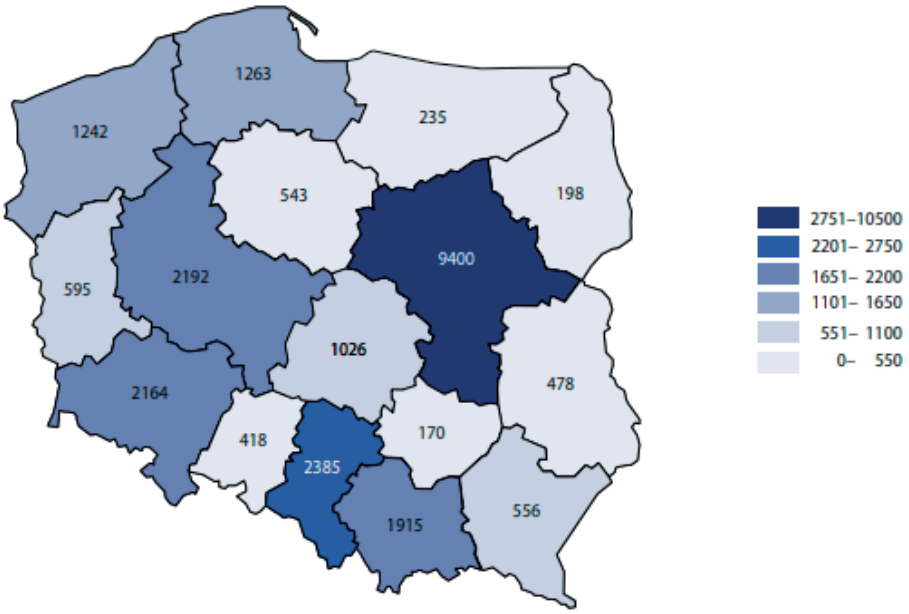
- First stage – collection and analysis of gathered information, and – if needed – searching for an alternative solution.
- Second stage – incubation, i.e. the time our mind needs to think the problem over in the sub-consciousness.
- The third stage – enlightenment which can also occur when someone is preoccupied with something different than the problem which innovation is expected to resolve.
- Stage four – verification; in this final stage we check if our idea is feasible and, if it is feasible, we work out how it could be realized.

In every firm the source of innovation are its employees. Their knowledge and expertise are precious assets which can be used to the benefit of the company. That is why good managers should appreciate and remunerate adequately the most creative employees. They should also provide frequent training as well as stimulate and encourage creativeness since innovation is inherently connected with creativeness (Ostrowska, 2011, p. 1). The innovation process leads to a change which can be a new product or a novelty manufacturing process of the same product, which can enable cheaper, simpler, and/or faster production.

2.3. Enterprises with Foreign Capital in Poland and the Lublin Region

The Lublin region attracts less foreign investments than other Polish regions. According to data published by the Central Statistical Office (CSO), in 2016 in the Lublin region there were 478 enterprises with foreign capital, which accounted for about 1.93% of the total foreign investments in Poland. In the Lublin region there are only 2.1 enterprises with foreign capital per 10,000 inhabitants, whereas the country's average is 6.9. Unfortunately, the region does not use fully its assets to attract more foreign direct investments into its economy. Even though in terms of area the Lublin region is the third largest region in Poland, the fact that it is one of the EU border regions and has high quality human capital, for several decades only about 2% of the total FDIs into Poland is coming to its economy. In terms of the Gross Domestic Product (GDP) per capita, the Lublin region is one of the poorest and least developed Polish regions and this disparity only continues to increase (Bis, Żminda, 2014, p. 84).

Map 2.1. *The number of entities with foreign capital located in Polish regions in 2016*



Source: Economic activity of entities with foreign capital in 2016, Statistics Poland, 2018, p. 29.

In terms of the number of employees working in companies with foreign capital, the Lublin region with 27,671 employees has the 13th position among 16 Polish regions, and the 12th position in terms of the amount of invested foreign

capital (2.1 B Pln). Moreover, an average employment in these enterprises in the Lublin region (57.8 persons) is significantly lower than the Poland's average (74.8 employees). Paradoxically, the region which has a huge capital needs has problems with overcoming barriers which effectively discourage foreign direct investors (Bojar, 2008, p. 98). In many investment attractiveness rankings of Polish regions its position is somewhere between 13th and 15th (Nowicki, 2008-2017).

The biggest investors in the Lublin region are investors from Italy (412.1 mln Pln), Luxemburg (349 mln Pln), the United States (135.6 mln Pln), France (127.8 mln Pln), and the Netherlands (104.5 mln Pln). These figures show that the capital invested in the regional economy comes from highly developed countries where enterprises are characterized by a high level of innovativeness (Zadura-Lichota, 2015, p. 12).[4] On the other hand, investors from such highly developed countries as Switzerland or Sweden are not present in the Lublin region. It is worthy to note that Sweden is a European leader in terms of outlays on external RAD activity per enterprise (Zadura-Lichota, 2015, pp. 25-26)[5]. In the Lublin region there are many Ukrainian investors, however, due to the fact that a unit investment is very low, they are not included in the official statistical reports released by the Central Statistical Office. The most FDIs are located in retail and wholesale trade, manufacturing, transport, and the building sector. 94% of enterprises with foreign capital are small and medium-sized entities; only 29 companies employ more than 250 persons and generate a significant potential on a domestic and international level. The city of Lublin along with the Lublin Metropolitan Area (LMA) absorbs almost a half of the total foreign investment. The cities such as Świdnik, Zamość, Kraśnik, Biłgoraj, and Biała Podlaska, which are resilient economic centres of the regional economy, are also important recipients of foreign direct investments, while in other areas foreign investments are rather marginal.

Our study covered companies with foreign capital located in the Lublin region and was carried out with the application of computer-assisted telephone interviewing method (CATI). Most of these enterprises are newly established businesses (so-called greenfield enterprises) – 70%, while 29.3% are privatized or recapitalized enterprises (brownfield enterprises). 73.5% of enterprises located in the Lublin Metropolitan Area are greenfield business establishments. The most enterprises with foreign capital operate in the services sector (39%), while 30% operate in manufacturing and 31% in retail and wholesale trade.

In 2016, 48.11% of companies with foreign capital located in the Lublin region reported nett profit in comparison to the country's average 52.35%. An average financial result amounted to 3.26 mln Pln as regards companies in the Lublin

4 Enterprises from Luxemburg and Italy are the most innovative, followed by enterprises from France and The Netherlands, while Polish enterprises are classified as weak innovators.

5 Sweden is the leader in the ranking of European countries in terms of expenditures on external research-and-development activity per one enterprise conducting such activity.

region with the country's average 4.33 mln Pln. Investment outlays on recapitalization or purchase of shares in 2016 varied depending on the size of entity. In the Lublin region, 39.33% of all investments are investments made by entities with foreign capital, while the country's average is 43.34%. Moreover, our study found that an average value of investment project made by the questioned enterprises was among the lowest in the country and equalled 2.45 mln Pln, compared to a Poland's average of 5.85 mln Pln. This means that foreign investors in making capital investments in the Lublin region are seeking cheap labour force to reduce their costs and therefore gain competitive advantage.

The Lublin region borders on the Masovian region which, along with the city of Warsaw which is both the main city of the region and the capital of Poland, is perceived by potential foreign investors as more attractive investment destination. The Lublin region, however, has a large untapped potential; being an EU border region with important trade routes it can potentially enable quick access to the Eastern European markets with millions of customers. In order to take advantage of this potential and make the region more attractive to foreign investors, its transport infrastructure, including transit roads and railways, needs significant modernization. This could also better conditions for regional cooperation with other Central and Eastern European regions. Other regional untapped assets include numerous scientific institutions with many students, niche environmentally friendly agriculture, rich hard coal deposits, and a well-developed aviation industry.

2.4. Innovativeness of Enterprises with Foreign Capital Located in the Lublin Region – Research Findings

According to the 2016 data published by the Central Statistical Office, in the Lublin region operated 478 small and medium-sized enterprises with foreign capital. As a result of the study carried out in the second quarter of 2018 we collected questionnaires filled out by 80 enterprises. The size of the research sample allowed us to assess the rate of the maximum statistical error at 10% and the confidence rate at 95%. This means that it can be assumed with a 95% probability that obtained results do not differ from the real value of analysed variable for the whole population by more than 10%. The most numerous group of enterprises included in the study were medium-sized enterprises (45%), 28.75% were small enterprises, 17.5% were micro-enterprises, and 8.75% were big enterprises. The most important for the regional development is foreign direct investment in manufacturing. They implement innovations, apply modern technologies, and create new jobs. These enterprises purchase from local suppliers which due to new purchase orders can sustain and even increase employment. This phenomenon is

termed a "supplier/vendor effect", which oftentimes is accompanied by the flow of know-how. The most enterprises included in the study operated in industrial processing (Section C of the Polish Classification of Activities) – 26.25%), followed by building industry (13.75%), trade and repair (11.25%), and transport and storage 10%). 62.5% of FDI was independent enterprises and 37.5% were branch offices of enterprises headquartered in other countries. An average age of parent companies was 17.5 years and an average period of operation in the Lublin region was 11 years. 45% of polled FDI enterprises entered the region through the setting-up a new entity (greenfield investment), 35% decided to purchase or take over an existing enterprise (brownfield investment), while the remaining 20% established a company with a Polish partner (joint venture). The most capital came from Germany (20%), followed by France (10%), Ukraine (7.5%), Italy (6.25%), and the USA (also 6.25%). In terms of the country of origin, foreign direct investment in the Lublin region are diversified. Capital from such countries as South Korea, India, Japan, Belarus, Slovenia, Portugal, China, the Netherlands, Belgium, Austria, Croatia, Lithuania, Cyprus, Switzerland, and Romania is also present in the regional economy. One can observe high involvement of Ukrainian investors, who – due to difficult political and economic situation – moved their business activities to the Lublin region.

Rapid globalization requires enterprises to constantly update and acquire new knowledge. It is commonly believed that foreign direct investments contribute to technology transfer, which in turn positively affects efficiency of enterprises. FDI also creates a path for international know-how flows. At the same time local enterprises often attempt efforts to equal and compete with innovation leaders operating in the same sector and thus are more willing to take risk to innovate. From a strategical point of view both for enterprises and regional development are product-related innovations.

Table 2.1. Product-related innovations *phased in by FDIs in the Lublin region*

Product innovations	Percentage of responses*
Company-scale innovations	35.0%
Regional-scale innovations	17.5%
National-scale innovations	15.0%
World-class innovations	25.0%
No product innovations	40.0%

* Since the polled companies were allowed to tick in the questionnaire multiple categories of product-related innovations, returned responses do not sum up to 100%.

Source: Worked out by the authors.

As many as 40% of enterprises indicated that in 2015-2017 they did not implement any product-related innovations. As shown in table 2.1 above, the most numerous were innovative solutions on the company-scale (35%), regional-scale innovations accounted for 17.5% of product innovations, while 15% of innovations were of national scale. At the same time one in every four enterprises implemented a world-scale product innovation.

This situation in closely linked to the different levels of economic development of investors and FDIs recipients. According to a theory put forward by R. Vernon (Vernon, 1966, p. 190), a product life cycle may vary significantly. Hence investors are able to extend the product life cycle by relocating production to less developed countries or regions. However, data gathered during the study confirm a positive impact of foreign direct investment enterprises on the level of innovation in the Lublin region.

Process innovations, also called technological innovations, which consist in changes in the production methods or approach to customers, were implemented by 75% of polled enterprises. The most of introduced process innovations were new or significantly improved manufacturing methods of the products (42.5% of enterprises) and new or substantially bettered methods of operation and support of manufacturing processes (25% of enterprises). Other process-related innovations implemented 25% of enterprises. New or essentially improved logistics and distribution methods were phased in by only 17.5% of enterprises.

According to our study, in the years 2015-2017 only 22.5% of polled enterprises did not implement any organizational innovations. On the other hand, significant changes in the organizational structure, organization of workplace, and distribution of tasks or decision powers, were introduced by as many as 45% of polled enterprises. Every third company implemented new or essentially improved knowledge management systems and 30% of enterprises improved their quality systems. Only 20% put into operation IT systems such as customer relationship management (CRM) or enterprise resource planning (ERP). 12.5% of enterprises decided to delegate part of their tasks to external entities (outsourcing). The least frequent innovations included the winning over a strategic investor (5%), and new or significantly modified relations with other entities in their business surroundings (7.5%). None of the polled enterprises pointed to the moving the business elsewhere as an organizational innovation. It is worthy to state that FDI enterprises operating in the Lublin region are reluctant to cooperate in joint projects and set up clusters and organizational networks. To sum up, enterprises implemented organizational innovations quite frequently. It can be stated however that organizational innovations to a higher degree were directed to the inside of the enterprise than focussed on its environment and external relations.

Marketing innovations consist in the application of a novelty marketing method which results from a new strategy of conception that is significantly different from

the one used by the company so far. This kind of innovation seems to be relatively easy to implement. However, our study shows that as many as 37.5% of polled enterprises did not introduced any marketing innovations. The most frequent marketing innovations were new media or product promotion techniques (32.5% of enterprises) and new or significantly modified appearance of products, their form, shape, and/or packaging (27.5%). Interestingly enough, in the years 2015-2017, every fourth enterprise entered new geographical markets or addressed its offering to a new segment of customers. 10% of enterprises launched new product brands and implemented new or significantly modified sales methods and new distribution channels, for example franchising, direct sale, and new methods of product display. To sum up, the polled enterprises used marketing innovations quite broadly to maximize their profits.

The study also revealed that in the years 2015-2017 30% of FDI enterprises operating in the Lublin region carried out research-and-development works or research on innovations. At the same time, as many as 42.5% of enterprises disregarded the need for such activity and 27.5% had insufficient resources to conduct any RAD works. 30% of enterprises used the results of research-and-development works or research on innovations carried out by other organizations. Unfortunately, only 7.5% of enterprises used the results of such works produced in the Lublin region. 5% of enterprises used the results produced by scientific institutions and only 2.5% of enterprises carried out research-and-development works or research on innovation in cooperation with their customers. Interestingly enough, consulting firms based in other regions in Poland and abroad were the main providers of innovation to as many as 22.5% of questioned enterprises. The second largest source of innovation for the enterprises covered by the study were their suppliers and customers located outside the Lublin region.

As shown in table 2.2, the surveyed enterprises see the greatest effects of their innovative activity in extending their offerings (75% of enterprises), increased productivity (75%), better quality of offered goods/services (66.6%), and the retaining or strengthening their market position (66.6% of enterprises). The lowering the unit manufacturing costs was pointed to by 50% of enterprises. The same percentage of surveyed companies indicated improvement in management processes. The least indications pointed to an improved communication with customers, and a better exchange of knowledge in relations with other entities – 25% each. This only confirms earlier conclusion that FDI enterprises are focussed on themselves and less open to the surrounding environment. 47.5% of enterprises with foreign capital located in the Lublin region cooperate with other entities in research and developing innovative staff training programmes, which confirms a positive impact of FDIs on the quality and development of human capital. The other key area where the polled enterprises innovate is developing new products and services, and new methods of learning about the customers' needs and expectations – 48.9%. The

respondents thus seem to understand that in the second decade of the 21st century it is essential for any business in order to be successful needs to be as close to the customers as possible, identify and understand their needs, and then design and deliver the products or solutions they need.

Table 2.2. *Effects of innovative activity conducted in the years 2015-2017 by FDI enterprises run in the Lublin region*

Results of innovative activity	Percentage of responses*
Broadened offer	75.0%
Increased company productivity	75.0%
Better quality of offered goods/services	66.6%
Retained or strengthened market position	66.6%
Lower unit manufacturing costs	50.0%
Improvement in management processes	50.0%
Acquisition of new markets	50.0%
Improved internal communication	41.6%
Lower unit labour costs	33.4%
Increased company profitability	33.4%
Better work conditions	33.4%
Conformity with standards and/or technical norms	33.4%
Improved communication with customers	25.0%
Better exchange of knowledge in relations with other entities	25.0%
Other	0.00%

* Since the polled companies were allowed to tick in the questionnaire multiple categories of innovations, responses do not sum up to 100%, N=24.

Source: Worked out by the authors.

FDI enterprises were also asked to express their opinions about the quality of cooperation on research-and-development works or research on innovation with other entities. The most positive opinions concerned foreign suppliers (48.9% of questioned enterprises) and suppliers located outside the Lublin region (46.7% of enterprises). Only 37.8% of enterprises expressed opinions that the quality of their cooperation with regional suppliers was good and 33.3% had no cooperation with those suppliers at all.

At the same time, 37.8% of enterprises assessed cooperation with their customers, including foreign customers, as good. Negative opinions as to the quality of cooperation were few, most of them concerned regional scientific institutions (6.7%

of responses) and regional competitors (also 6.7%), while positive opinions about cooperation with scientific institutions expressed 17.8% of enterprises and 20% expressed positive views about their cooperation with regional competitors. Those findings appear to show that FDI enterprises have rather unfavourable perception of regional enterprises, as well as universities and research-and-development units. The study also shows that as many as 51.1% of questioned enterprises have not established cooperation links with competitors nor scientific units in the region.

Only 28.9% of FDI enterprises operating in the Lublin region admitted that they had insufficient resources for innovative activity, 46.7% declared that their wherewithal were rather sufficient, while every fourth respondent expressed the view that its resources for innovation were definitely sufficient. Depending on the type and scale of innovative activity, FDI enterprises have access to many forms of financing, including credits. However, in the years 2015-2017 only 28.9% of surveyed enterprises used this option, and the reason for this may have something to do with the most frequent barriers which discourage enterprises from undertaking innovative activity. Every third enterprise pointed to the high risk associated with innovative activity, and 31.1% to the low level of interest of their customers in innovative solutions. Taking into account that a part of FDI enterprises attempt to extend the life cycle of their products by relocating the business to less developed regions, we can suspect that these investors are not interested in innovation and product development at all. As many as 28.9% of surveyed enterprises admitted that they had insufficient technical capabilities to carry out research-and-development works, and 26.7% pointed to the reluctance of their employees to change and novelty. Interestingly enough, only 2.2% of enterprises declared they were lacking expertise in acquiring external funds for innovation. Likewise, quite small portion of enterprises pointed to the high costs associated with an acquisition of external funds (4.4%). The same number of enterprises drew attention to insufficient government support to innovative undertakings. It follows that a part of FDI enterprises located in the Lublin region knowingly fail to undertake innovative activity despite the fact that they have available needed resources and know-how. It is also worth mentioning that as many as 55.6% of surveyed FDI enterprises admitted that they did not know the priorities concerning innovative activity laid out in the regional strategies, which brings into question the high self-evaluation of respondents.

Summary and Conclusions

In the light of theoretical considerations and based on research carried out by the authors, it can be stated that foreign direct investment is conducive to the growth of innovation of enterprises located in the Lublin region. This is happening mainly

due to the fact that the regional economy lacks capital. Hence the influx of external investments is a key factor determining economic development and growth of this underdeveloped region. An alternative solution to external investments can be a public aid in the form of the EU funds supporting entrepreneurship and innovation. As many as 40% of surveyed FDI enterprises admitted the fact that they did not introduce any product-related innovations. However, one in four innovations was a world-class innovation. At the same time, three-quarters of enterprises introduced organizational and process innovations, while marketing innovations were implemented by two-thirds of polled enterprises. In order to improve the situation the regional authorities should undertake efforts to strengthen the cooperation between foreign direct investors and universities and research-and-development units, which – as revealed by the study – do not cooperate with the majority of surveyed FDI enterprises. This statement may be a good starting point to a debate on how to encourage and stimulate innovative activity in the Lublin region.

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3. The role of foreign direct investment in the regional sustainable development of Lubuskie Voivodeship

Introduction

Since 2009, the regional administration in Poland is obligated to conduct territorial development policy at the voivodeship level (Ustawa 1998; Ustawa 2008). Therefore they have to develop Strategies for Sustainable Development, taking into consideration the goals included in the mid-term national strategy on sustainability, the national territorial strategy and the current sustainability strategy in the UE, Europe 2020. For the second and the third level administration units in Poland, powiaty (counties) and gminy (municipalities), such planning is also useful yet voluntary (Gawroński, 2009).

Territorial development policy aims at improving the regional sustainability, i.e. increasing the competitiveness of the local enterprises (e.g. via efficiency and innovation s), at the same time promoting territorial cohesion and socio-economic inclusiveness as well as fostering environmental protection. This framework makes it obligatory for the local authorities to monitor indicators of progress and the directions of actions as well as completion stages set by the strategy.

FDI plays an important role in the planning of the regional development, helping to cover the necessary local investment needs. However, the inflow of foreign investment into a region and its dynamics usually vary in time and space. This phenomenon became a subject of interest to many academics in Poland. Most common amongst them are the economists conducting analysis at the micro and macro level (Frejtag-Mika, 2009; Karaszewski, 2004; 2012). Their research shows that FDI in Poland flows into the regions leading in terms of economic and infrastructural conditions, because such regions offer a higher return on investment. The reason for this is that in these regions, foreign investors, as capital acquirers with ownership of the location factors, are able to create competitive advantage not

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only referring to costs (which is common in less developed regions – see Porter, 2001), but also referring to the quality of means (such as human capital and skills), to the market (supply) and to the investment attraction. Regions dominated by agriculture or less developed tend to absorb a much smaller percentage of foreign capital (Skawińska, 2018, pp.103-122). With its lower level of economic development, Lubuskie Voivodeship is considered one of such regions (Jurkowska, 2018, pp. 47-64).

The issue of the FDI inflow into less developed countries has been explored in an international overview by E. Bojar (Bojar, 2001; 2004; 2008). One type of the FDI incentives in such countries are special economic zones and subzones as well as business clusters. The relationship between FDI and the economic growth of the country of destination is multidirectional and characterized by connections of varying intensity. This relationship can be direct or indirect, positive or negative, making it difficult to estimate its net impact on the receiving region (Gorynia et al., 2006, p. 200). However, it has been proven that FDI closes the national investment gap and that "its physical effect – a new manufacturing company, a developer, a hotel or a shopping center – cannot go away" (Kołodko, p.189).

Alas, in-depth and up-to-date research on the social and environmental impacts of the foreign capital is so far rare. Therefore, we propose the following hypotheses for the purpose of our analysis: a) Does FDI impact the regional sustainable development in terms of its economic, social and environmental dimensions, including environmental protection and the use of non-renewable resources in Poland? b) Is the FDI inflow supporting the implementation of the sustainable development strategy in the Lubuskie region? c) Is the regional governmental policy active in creating a favorable investment environment for FDI influx? d) And last but not least, are the governmental measures of fostering sustainability successful? The main objective of the following paper is to examine FDI influx to Lubuskie in terms of its value and structure within the framework of the regional characteristics of resources, means and needs in the context of sustainability. As an auxiliary objective we analyze the activities of the regional decision-makers concerning the monitoring of the FDI inflow and its impacts in relation to the paradigm of sustainable development. We applied the methods of benchmarking, secondary source analysis, visualization and description. The scope of the research applies to the span of 2000-2016. We based our deductions on the review of scientific literature and other sources of statistical data.

3.1. Theoretical and EU-institutional framework of sustainable development

The idea of sustainable development (SD) emerged in the 1970s and became the leading paradigm in economic sciences of 21 century. Sustainability is concerned to be the answer to the man-made civilization risks caused by the already high and rapidly growing population numbers, income gap, greenhouse effect, depletion of scarce and non-renewable resources, contamination of soil and water and the upsurge in energy demand. The first formal use of the term sustainable development has been recorded in the documents of UN and in Europe in the EU, subsequently spreading to the member countries (Skawińska et al., 2016, p. 59).

On the UN Agenda 21 from 1992 the term has been described as an "economic and social development that meets the needs of the current generation without undermining the ability of future generations to meet their own needs" (UNCED, 1992). Aiming at endurance, sustainable development promotes the quality of life of the present and the future generations by means of balancing the economic, the human and the natural capital (Hejduk, 2014, p. 48). As a result of the debate among different international opinion- and decision-makers, the idea of the economic, social and ecological equilibrium has emerged. The main drive is to provide security for all members of the society in a wide context, including decreasing the income gap, sustaining basic needs and promoting socio-economic inclusion. As far as the environment is concerned, balancing its exploitation means managing resources in such a way that will not decrease the ability of future generations to sustain their needs but allows the present generations to thrive as well. Each state should follow thus defined idea of the environmental governance. However, there are many obstacles on its path, difficult to overcome due to the high costs and the limits to science and knowledge. The policy of sustainability addresses enterprises, consumers, territorial and economic management and other agents. The UE supports sustainable development and provides guidelines for creating sustainable enterprises and sustainable innovations (Skawińska et al., 2016, p. 61-66). The latter are not yet clearly defined but they commonly refer to "innovations increasing efficiency while taking into considerations the ecological, economic and social criteria" (Carrillo-Hermosilla et al., 2010, pp. 1073-1083).

Recapitulating, the current debate including managers and aimed at the necessary changes regarding sources of competitive advantages and the ways of bridging the gap between financial resources held and required to accomplish corporate goals, takes into consideration also aspects of sustainability. The results are sustainable management strategies, such as the strategies of territorial development. The latter include not only the above mentioned sustainable enterprises and sustainable innovations, but also *sustainable investment*. This also applies to FDI, thus we can distinguish so called *sustainable foreign direct investment*. We understand this term

as an investment supporting effectiveness in creating added value via activation of regional resources and respecting the principles of environmental protection and social balance, to which the indigenous human capital is complementary. Thus it seems imperative that the characteristics of the invited FDI should be in alignment with the strategy of the sustainable territorial development. Is this the case in Poland, we ask. The answer to this question is already of importance; however in order to satisfy the scientific approach, a methodology applicable to the analysis of sustainable investment needs yet to be established. In this paper we assess the availability of information on FDI activities in the Lubuskie region in regard to sustainable development.

3.2. Characteristics of Lubuskie Province[8]

Lubuskie Province (or Lubuskie Voivodship) is located in the western part of Poland, bordering with Germany and the Polish provinces of Lower Silesia (*Dolnośląskie*), Greater Poland (*Wielkopolskie*) and West Pomerania (*Zachodniopomorskie*). The location of Lubuskie Province in relation to the important European transport corridors: No. II Berlin – Warsaw – Moscow and No. III Berlin – Krakow – Kiev, as well as to the Central European Transport Corridor Skania – Szczecin – Prague – Bratislava – Vienna – Budapest – Ljubljana – Trieste, is an important factor shaping the region's investment attractiveness. In terms of the development of road infrastructure, Lubuskie belongs to a group of relatively well-developed regions in Poland. The region also boasts a well-developed railway network, which is Poland's first in terms of the length of railway lines per one resident.

An analysis of the settlement system of this province indicates that there are no urban agglomerations recognized as centers with the rank of a regional metropolis. In the supra-province system, the analyzed area belongs to the zones of influence of two Polish metropolises, namely Poznań and Wrocław, as well as an important European metropolis – Berlin. The location of Lubuskie Province determines its potential outlets and can be an important asset in the development of industries with demand-oriented location factors, such as the food, automotive, building materials and furniture industries.

Lubuskie Province is one of the smallest in Poland (13th out 16), and administratively, it is divided into two subregions, i.e. Gorzów and Zielona Góra. Both subregions are marked by a relatively high investment attractiveness, as confirmed

8 Own study based on: *Atrakcyjność inwestycyjna regionów…*, 2017; *Atrakcyjność inwestycyjna…*, 2016; *Lubuski Przegląd Regionalny*, 2017; *Ocena Strategii Rozwoju…*, 2018; *Odkryj Lubuskie…*, 2018, *Plan Inwestycyjny…*, 2016; *Potencjał inwestycyjny i eksportowy…*, 2016; *Program Rozwoju Innowacji…*, 2018; *Regiony Polski*, 2018; *Rocznik Statystyczny Województw*, 2017; *Rocznik Statystyczny…*, 2017; *Województwo Lubuskie…*, 2017; *Województwo lubuskie…*, 2018.

by a study on investment attractiveness of Polish provinces conducted by the Polish Research Institute of Market Economy.

The area of Lubuskie Province is inhabited by over 1,000,000 people, which is 2.6% of the total population of Poland (the last in the country). The average population density in the region is 73 people per 1 km², against the average of 123 people per 1 km² for Poland. According to demographic forecasts, Lubuskie Province has a stable population. However, its age structure is changing, and the number of people at working age is expected to decline, with the simultaneous rise in the number of people at post-working age. The increase in economic dependency will, thus, occur in the region at a faster pace than in Poland as a whole. In Lubuskie Province, there has been a clear increase in employment, but it is worth noting that changes in the employment structure have not had a clear trend. An increase in employment in services was observed, and in line with the forecasts, there was a decline in employment in agriculture.

In the region, good progress was also achieved in reducing unemployment. The downward trend in the unemployment rate is part of the nationwide trend, and it should be emphasized that in 2017 the unemployment rate in Lubuskie Province was one of the lowest in Poland. This led to an increase in the quality of life in the region. The risk of relative poverty (expressed as the at-risk-of-poverty rate) decreased, which in 2016 was the lowest in the country. Significant progress was also made in the area of providing people with the basic environmental infrastructure (including sewage and water supply networks) and sewage treatment plants, especially in rural areas.

The share of Lubuskie Province in generating gross domestic product in 2015 was one of the lowest in the country (2.2%), ranking it 9th out of 16 in Poland with the value of PLN 39,052 per capita (83.5% GDP per capita in Poland), which was PLN 7,740 less than the average for Poland. In 2016, the gross domestic product per capita according to the purchasing power parity (in PPS) in Lubuskie Province constituted 57.3% of the average value for the European Union countries (against 53.0% in 2010).

In 2017, there were 112,910 business entities in the region which were entered in the REGON registry, i.e. 2.6% of all registered businesses in Poland. The sector of microenterprises employing up to nine people is clearly predominant with 108,290 such entities, which is 95.9% of all registered enterprises.

Lubuskie Province offers favorable conditions for launching and running a business, especially to foreign investors. There are 77 investment areas in the Polish Investment and Trade Agency database, with a total area of 1,886,809 ha available in the region (http://www3.paiz.gov.pl/invest_sites/).

Lubuskie Province also shows high values of the natural environment. This capital is undoubtedly conducive to locating very desirable branches of industry in the region, i.e. ones that do not pollute the environment, are modern, and favor the overall civilizational development of the province.

In addition, the region in question has made significant progress in the development of energy infrastructure, including in the field of renewable energy sources (RES). The assumed level of RES participation has already been doubled. Given the European Union's requirements regarding the minimum share of renewable energy and the region's potential for utilizing renewable energy sources (mainly geothermal and hydro-energy), this trend will continue to grow. At national level, Lubuskie Province ranks 7th out of 16.

The branch structure of Lubuskie Province's industry is dominated by traditional (but not declining) areas of economic activity, characterized by a relatively low value added (labor-intensive sectors). Most sectors of the manufacturing industry that define the main production profile of the region are medium-low and low-tech (according to tech sectors in force in OECD countries). The leading industry of industrial processing in the region is production for the needs of the automotive industry, while traditional sectors are wood processing, paper production and food manufacturing, which collectively are responsible for over 50% of the industrial production of the province (see: Wyrwa, 2014, p. 151).

Lubuskie Province scores poorly in the field of research and development. Entities conducting R&D activities, measured both by the scale of activity and by the staff and financial capacity, is relatively low. However, initiatives are being proposed concerning new R&D enterprises that may mark the beginning of a sustainable process of improving the innovativeness of the region's economy. In addition, very good achievements can be observed in education at university level, where there has been a significant increase in the percentage of graduates from mathematical, natural and technical faculties.

In recent years, favorable changes were also noted in the financial performance of enterprises in the region, where a more dynamic increase in revenues from total operating expenses led to an improvement of basic financial results and ratios. Export is of major importance to the operations of enterprises in the region. In small and medium-sized enterprises, export activities are conducted by more companies than the average in the country.

In 2016, the value of exports in Lubuskie Province reached EUR 6.25 billion (3.4% of domestic exports), marking an increase by 77.0% compared to 2010. The region maintained a surplus of exports over imports since 2010, which should be considered a very favorable situation. Exports in the province pertain primarily to groups of products (according to the CN – combined nomenclature- classification) which are directly related to the smart specializations of the region or areas of specialization adopted under the Innovation Development Program for Lubuskie Province. In recent years, there were no significant changes recorded in terms of the list of the most important product groups. However, attention should be paid to a significant increase in the volume of exports for such product groups as furniture, aluminum, and meat and edible offal. The most important trade partner of the

province is the Federal Republic of Germany. Nearly 70% of the goods and services exported by Lubuskie companies go to the German market, followed by those of the Netherlands, France, as well as the Czech Republic and the United Kingdom. The value of exports in the region is expected to double by 2023 (reaching approx. EUR 8.8 billion). It is still assumed that the growing trend will be maintained as regards the volume of imports. Nevertheless, the dynamics of export changes will remain at a slightly higher level than imports, which will result in an increasing surplus of the region in foreign trade (*Potencjał inwestycyjny i eksportowy…*, 2016, p. 7).

The analysis of Lubuskie Province, based on two important reports published under the aegis of the European Commission – the Regional Innovation Scoreboard (2017) and the Regional Competitiveness Index (2016) – indicates that the overall competitiveness of the province compared to other European regions is low. The level of innovativeness of the region, as in the case of other Polish provinces, is also low and changes insignificantly over time. An important factor improving the market position of the region are innovation expenditures not related to R&D.

A review of selected indicators of sustainable development allows to identify both strengths and weaknesses of Lubuskie Province. The indicators presented in Table 3.1 also determine the market and resource-related motives of locating direct investments in Lubuskie Province.

Table 3.1. *Selected indicators of sustainable development of Lubuskie Province*

Indicator	Years	Unit	Value
Gross domestic product (current price)	2010	PLN	31 723
		Poland = 100	84,7
	2015	PLN	39 052
		Poland = 100	83,5
GDP per capita in PPS PPS = Purchasing Power Standard	2010	in PPS	12 900
		UE28 = 100	53,0
	2016	in PPS	16 700
		UE28 = 100	57,0
Expenditures on R&D in relations to GDP	2010	%	0,14
	2016		0,20
Employment rate of the population aged 15 and more by Labour Force Survey	2010	Total (%)	49,8
		women (%)	43,3
		men (%)	57,2
	2017	Total (%)	53,5
		women (%)	45,4
		men (%)	61,9
Unemployment rate by Labour Force Survey	2010	Total (%)	10,5
		women (%)	10,3
		men (%)	10,8
	2017	Total (%)	3,6
		women (%)	3,6
		men (%)	3,6

Indicator	Years	Unit	Value
Structure of employment by economic sectors	2010	agriculture (%)	7,8
		industry and construction (%)	34,0
		services (%)	58,3
	2016	agriculture (%)	6,8
		industry and construction (%)	34,0
		services (%)	59,2
Average number of years to live	2010	women	80,1
		men	71,5
	2016	women	81,4
		men	73,0
Live births	2010	per 1000 population	10,7
	2016		10,1
Average monthly gross wages and salaries in the national economy	2010	PLN	2755,38
		Poland = 100	85,5
	2016	PLN	3541,91
		Poland = 100	87,4
Average monthly available income in zl per capita in households	2010	PLN	1153,06
		Poland = 100	96,7
	2016	PLN	1498,52
		Poland = 100	101,6
University graduates from mathematical, natural and technical faculties	2010	% of university graduates in total	15,7
	2017		24,7
Percentage of households having a computer (with access to the Internet)	2010	%	60,5
	2016		75,1
Percentage of business entities with access to broadband Internet	2010	%	67,0
	2016		94,3
At-risk-of-poverty rate	2010	%	15,9
	2016		9,0
Population served by sewage treatment plants	2010	%	67,5
	2016		75,8
Share of electricity production from RES in total energy production	2010	%	8,6
	2016		21,3
Percentage of local area covered by existing local development plans	2010	%	6,3
	2016		8,9
Share of investment expenditures in relation to municipal budgets	2010	%	26,5
	2016		10,5
Percentage of people using online services provided by offices	2010	%	21,1
	2016		23,0

Source: Own study based on: *Biuletyn Statystyczny…*, 2018; *Budżety gospodarstw…*, 2011; *GDP per capita…*, 2018; *Ocena Strategii Rozwoju…*, 2018; *Regional GDP per capita…*, 2013; *Rocznik Statystyczny…*, 2017; *Województwo Lubuskie…*, 2017; *Województwo lubuskie…*, 2018.

3.3. Foreign direct investment in Lubuskie Province[9]

Lubuskie Province is an attractive region for locating direct foreign investments, as evidenced by aspects such as as location features and high-quality parameters of the natural environment. Nevertheless, the inflow of foreign capital to this region is low compared to the rest of the country. The values of variables recorded for Lubuskie Province, in relation to the average parameters for Poland, indicate that Lubuskie Province usually occupies one of the lowest positions in the ranking. In 2016, the number of enterprises with foreign capital in the region was 674 units, which is 2.6% of all units with foreign capital in Poland at the time (Figure 3.1). Accordingly, the region (similarly to the previous years) ranked 9th, behind the following provinces: *Mazowieckie, Śląskie, Wielkopolskie, Dolnośląskie, Małopolskie, Zachodniopomorskie, Pomorskie* and Łódzkie. As per 10,00 residents, Lubuskie Province recorded 6.6 such units, placing 4th in Poland, behind the provinces *Mazowieckie, Zachodniopomorskie* and *Dolnośląskie*. In 2010-2016, the share of entities with foreign capital among all registered businesses in the region, after a period of slight increase, gradually stabilized, and then decreased. The nature of these regularities corresponds to the situation of foreign capital against the background of all economic entities in the country. In 2016, the share of entities with foreign capital in the total number of economic entities in Lubuskie Province was 0.6%.

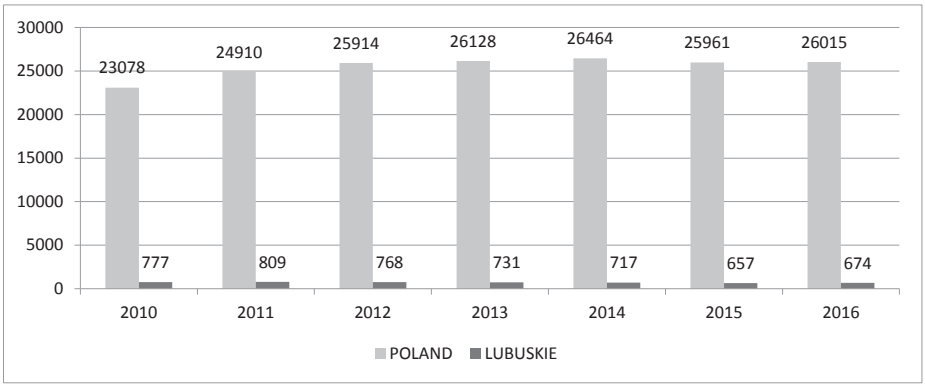

Figure 3.1. *Number of entities with foreign capital in Lubuskie Province and their share ithe total number of foreign entities in Poland*

Source: Own study based on: Działalność gospodarcza… in years 2010-2016.

9 Own study based on: *Analiza potencjału…*, 2013; *Działalność gospodarcza…* in years 2010-2016.

Entities with foreign capital located in Lubuskie Province have relatively large capital resources. In 2016, the share of foreign capital in the value of share capital inflows of enterprises was 96.6%. Domestic shareholders held 3.4% of their share capital, while dispersed capital was 0.1% of their share capital. In Poland, meanwhile, these shares were as follows: foreign capital – 92.6%, domestic capital – 5.2%, and dispersed capital – 2.2%. The value of foreign capital was at PLN 1,681,500 million, showing a 16.5% increase compared to the previous year (Figure 3.2). In 64 units, the value of foreign capital exceeded USD 1 million. The foreign capital of these entities accounted for 87.5% of all foreign capital located in Lubuskie entities.

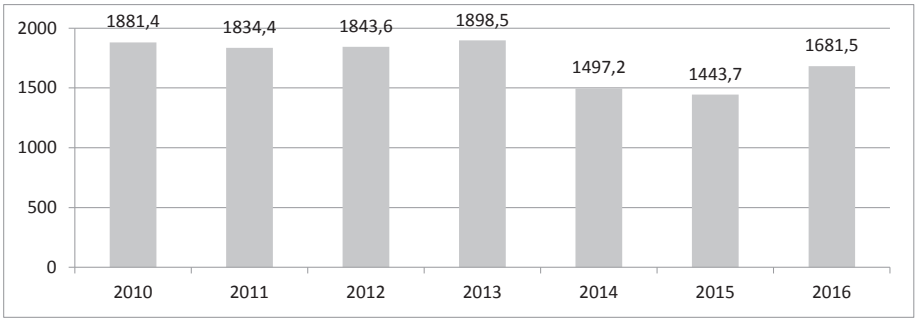

Figure 3.2. *Value of foreign capital inflows to Lubuskie Province in 2010-2016 (PLN million)*
Source: Own study based on: Działalność gospodarcza… in years 2010-2016.

Enterprises with foreign capital are an important group of employers in Lubuskie Province. In 2016, 40,600 employees were employed in Lubuskie Province in enterprises with foreign capital, which accounted for 2.2% of the total number of employees in entities with foreign capital in Poland (Figure 3.3). The share of people working in businesses with foreign capital was lower in the following provinces: *Lubelskie* and *Opolskie, Świętokrzyskie, Warmińsko-Mazurskie* and *Podlaskie*.

In 2016, out of the total number of entities with foreign capital in Lubuskie, 59.8% were enterprises employing up to 9 people, 19.9% – enterprises with 10 to 49 employees, 15.3% – entities employing 50-249 people, and 5.0% – companies employing 250 or more people. Despite the fact that microenterprises prevailed in the structure of entities with foreign capital by size, only 1.8% of all employees employed in companies with foreign capital worked there. Over 59.2% of this workforce was employed in large enterprises, while 30.7% and 8.3%, respectively, worked in medium-sized and small enterprises.

Accordingly, it can be stated that there is a polarization of the employment structure in enterprises with foreign capital in Lubuskie Province, on the one hand manifested in the concentration of a large number of employees in a relatively

small group of largest entities, and on the other, in the distribution of small labor resources across a significant number of small entities. The current trends coincide with those observed in other Polish provinces. As far as Poland is concerned, in 2016, 75.0% of all employees working in this type of entities were employed in the largest companies with foreign capital. At the same time, 1.5% of the total number of employees in units with foreign capital were employed in microenterprises. Between 2010 and 2016, the polarization of employment in the group of enterprises with foreign capital in Lubuskie Province became more marked. At the beginning of the analyzed period (in 2010), a total of 14.3% of employees employed in companies with foreign capital worked in micro and small enterprises, while 32.5% were employed in enterprises hiring from 50 to 245 people, which is, respectively, 4.2 and 1.8 percentage points than in 2016. In enterprises providing employment to 250 and more people, there were 53.2% of all employees in entities with foreign capital, i.e. 6.0 percentage points less than in 2016.

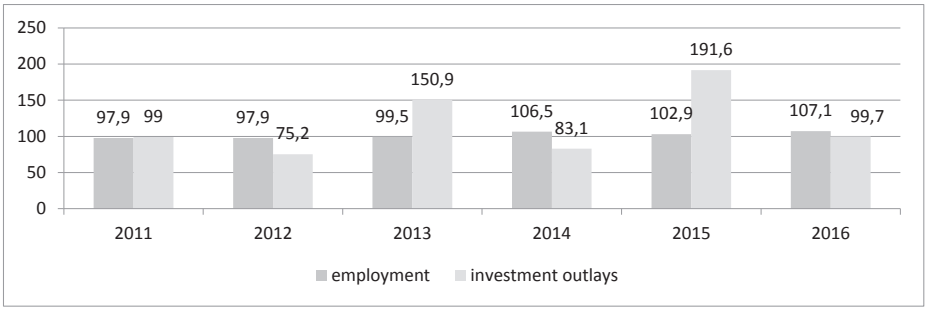

Figure 3.3. *The dynamics of employment and investment outlays in entities with foreign capital share in Lubuskie Province in 2010-2016 (previous year = 100%)*

Source: Own study based on: Działalność gospodarcza… in years 2010-2016.

Enterprises with foreign capital constitute an important group of investors in Lubuskie Province. This is evidenced by the value of their investment outlays in total and per one enterprise, as well as the so-called investment intensity measured as a ratio of the value of investment outlays on acquiring fixed assets to the value of revenues from total operations. In 2016, out of all enterprises with foreign capital in Lubuskie, investment outlays on acquiring fixed assets were incurred by 326 companies (48%), which is 2.9% of registered businesses in the country. Between 2010 and 2016, the average level of investment intensity in entities with foreign capital was at 17.4%, and even higher in some years.

An analysis of the branch structure of FDI indicates that the majority of entities carried out industrial processing activities (36.5%). Of the total number of enterprises operating in manufacturing, most units were involved in the production

of: metal products, foodstuffs, rubber/plastic products, as well as machinery and equipment. The number of entities from these four sections of industrial processing accounted for nearly 46% of all entities with foreign capital in this sector. Nearly 16.3% of foreign capital was invested in enterprises dealing in trade and repair of motor vehicles. Other enterprises conducted activities related to agriculture, forestry, hunting and fishing, transportation and warehouse management, real estate services, and construction. Meanwhile, the share of foreign capital engaged in enterprises from other sectors stayed below 5.0% of the total value of foreign capital concentrated in Lubuskie. Therefore, FDI invested in industry plays a significant role in the process of internationalization of economic activity in Lubuskie Province.

The presence of foreign investors in Lubuskie Province suggests that the FDI in the region may contribute to the growth of the internationalization of its economy, and thus, to the increase of relations between the region's economy and the economies of other regions in Europe and the world. In 2016, foreign capital engaged in Lubuskie companies came from 40 countries, mainly from the European Union (77.5% of the total value of foreign capital), and particularly from German investors. 452 shareholders (49.4% of the total) were German, and the value of their capital (invested in 335 Lubuskie businesses) comprised PLN 332.1 million (9.6% more than in 2015). This accounted for 19.8% of all foreign capital located in Lubuskie Province (for comparison, the share of German capital in Poland was at 17.0%). Italian investors were the second most engaged in Lubuskie. In 2016, investors from this country engaged in 27 Lubuskie companies' capital with a total value of PLN 197.9 million (11.6% more than in 2015). Italian capital accounted for 11.8% of all foreign capital invested in Lubuskie Province (compared to 2.6% for Poland). A relatively large share in the foreign capital structure in this region was also provided by capital from Belgium (PLN 143.2 million, or 8.5% of all foreign capital invested in Lubuskie) as well as from the Netherlands (PLN 127.0 million, or 7.6%), France (PLN 105.3 million, or 6.3%) and Switzerland (PLN 99.6 million, or 5.9%). In Poland, the capital originating from these countries was, respectively, at: Belgium – 2.6%, the Netherlands – 21.8%, France – 14.1%, and Switzerland – 1.9%.

Based on these analyses, it can be concluded that enterprises with foreign capital in the Lubuskie Province constitute an important group of investors. Given all the real benefits from the inflow of FDI to Lubuskie Province, it should be stated that they offer a great opportunity for the economy of this region Thanks to FDI, Lubuskie Prvoince has the opportunity to reduce its development gap in relation to the highly industrialized regions of Western Europe.

Summary

As mentioned above, the direct assessment of FDI impacts on the regional economy is difficult, multifactorial and thus to a large extent either not available or lacking in quality or quantity, mostly characterized by insufficient depth of description. The main challenge for a thorough analysis is lack of data, especially in regard to sustainability. In order to overcome this challenge, an in-depth research seems necessary, which means high costs in order to get input from a team of specialists with adequate skills and knowledge.

However, we propose to approach FDI analysis in an indirect way, assuming that if the goals of sustainable development are already included in the 2020 strategy of territorial development of Lubuskie, the indicators used to monitor its progress will also widely reflect improvements in the economic, social and environmental areas. Such improvements in underdeveloped regions with large accumulation gap require major investments from outside, including FDI, EU funding, loans from EBOR and other financial resources stemming from international savings.

However, while examining the reports and assessments available in the region and addressing this issue, we found out that the indicators used for monitoring were lacking in this regard. Especially we found no assessment of FDI impacts at all (except for the number of generated new positions), yet alone an evaluation of such investment in the context of sustainability. This is somewhat surprising, because if foreign investors are offered various incentives, such as subsidies, concessions, or CIT exemptions, than one could assume they were asked to report on the deliverables they pledged in return. The lack of information and assessment makes it impossible to develop successful regional policies in regard to attracting adequate investors.

Activities of the regional decision-makers aimed at managing FDI in Lubuskie Voivedeship consist mostly of promoting the region as an economy attractive for investors. The elements of programming and planning of economic promotion tasks can be found in several strategic documents, but the topics of these documents mainly focus on promoting the brand of the region and its touristic values. So far there is no distinct strategic document that would address the economic promotion in the long term and define core areas of action and the means in the promotion-mix.

The time, in which informing about the actual FDI activities has been tabooed, detrimental to polish economy, has already passed. This is why an objective analysis of these activities is needed as well as launching realistic incentives, aligned with the principles of sustainability and organizing an effective system of promoting the goals of sustainable development in the region.

We are recommending that the monitoring of the investment influx into the voivodeship should contain detailed indicators of sustainability regarding investment expenditures of companies with foreign capital in 3 areas: the economic growth, the social stability and the balanced use of environment.

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Jerzy Różański[10]

4. The Role of Foreign Direct Investment (FDI) in the Łódź Region

Introduction

Foreign direct investment is in addition to portfolio investments, the basic form of capital flows carried out on a supranational scale. Apart from researching the directions and values of these flows in the scale of the whole world economy or specific countries, part of the research focuses on the role and importance of the inflow of foreign direct investment to specific regions of the host country. This type of research will be presented in this paper.

It should be mentioned here that contemporary directions of research on foreign investments take up a number of threads which are very important taking into account the development forecasts of this form of capital expansion. This particularly concerns determining whether:

- foreign direct investment and non-capital forms of expansion are mutually complementary or competitive towards one another;
- the cooperation between the branch of a foreign enterprise located in the host country and the local producer (service provider) is symmetrical for both parties;
- foreign investments contribute to the liquidation of the local enterprises in a given region with which they compete;
- there is and what is the foreign investor's contribution to the development of the region taking into account the local employment balance, the investment activity and financial performance – reflected in the taxes paid by the investor, but mainly (especially in the case of greenfield investments) the aspect of strengthening the region's property power.

This last factor is the subject of the analysis contained in the study concerning the above-mentioned Łódź Region.

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The Łódź Voivodeship is one of the 16 voivodeships of Poland. It is located in the central part of the country and occupies the area of 18.2 thousand. km^2, i.e. 5.8% of the area of Poland (9th place). Łódź – the capital of the voivodeship is located in the center of the region. In terms of the number of residents it occupies the third place in Poland, after Warsaw and Krakow (over 700,000 residents). The central location of the region, at the intersection of the geometric axes of Poland (from north to south and from east to west), makes it an extremely transit area, which results in establishing of numerous logistics centers throughout the region (Stryków near Łódź stands out in this respect).

In terms of population, the Łódź Voivodeship occupies the 6th place in the country and it is inhabited by over 2.5 million people.

The Łódź Voivodeship is one of the most urbanized regions in Poland. The share of people living in cities makes up about 65% of the total population (6th position in the country). As many as 43 cities and towns are located mainly in the central part of the region, which is associated with the strong development of the textile industry in Łódź and its satellite cities in the 19th and 20th century. This industry induced rapid growth, especially of Łódź, which from a town with around 2,000 inhabitants at the beginning of the 19th century reached the population of 600,000 residents one hundred years later. Currently, the traditional industries of Łódź (leather-textile, chemical, electromechanical) are almost non-existent, giving way to industries based on modern technologies (production of home appliances, construction, agri-food, pharmaceutical, remote service telephones) with such potentates as: Bosch, Polska Grupa Farmaceutyczna, Indesit, Atlas, Rossmann, Dell, Infosys, etc.). The Łódź Special Economic Zone is of great importance for the development of modern economy, which, both in terms of area and of the number of domestic and foreign entrepreneurs who have decided to invest their money in the Zone, has moved to one of the first such places in Poland (with some fluctuations in the top three, taking into account the value of invested capital). Investments related to the inflow of foreign capital have a large share in the development of the region.

4.1. FDI Input in the Łódź Region – Case Study

The study on the role and importance of foreign investments in the Łódź Region was conducted in 2015 by the research team of the Department of Finance and Strategic Management of the University of Łódź.[11] The research was conducted in

11 The research team composed of: Professor Doctor Habilitatus Jerzy Różański – Team Leader, Team Members: Dorota Starzyńska, Ph.D.; Bogna Kaźmierska-Jóźwiak, Ph.D.; Magdalena Jasiniak, Ph.D.; Jadwiga Kaczmarska-Krawczak, Ph.D.

enterprises created as subsidiaries of foreign enterprises (about 100 entities), and in communes of the Łódź Voivodeship (130 entities).

The aim was, on the one hand, to specify:

- the determinants of choosing the Łódź Voivodeship as the location for foreign investment;
- the motives for the development of enterprises;
- but also to examine:
- the local government activity in attracting foreign investment;
- the effectiveness of tools related to the acquisition and maintenance of foreign investors in the area subordinate to these units.

The following part of the study will be predominantly devoted to the place and role of FDI in the region.

First, let us quote some statistical data (based on the materials from the Central Statistical Office). In terms of the number of foreign enterprises, the Łódź Voivodeship is located in the 8th position (among all 16 regions), and in the 9th place taking into account the value of the core capital. In the Łódź Region, more than 1,100 enterprises with foreign capital carry out business activity, against the total number of approximately 27,000 foreign enterprises operating all over Poland. In this voivodeship there is observed a steady increase, though somewhat slower than in the scale of the whole Poland, in the value of foreign capital. This testifies to the growing role of foreign capital in the economy of the region.

As for the origin of the foreign capital, there are large similarities between the Łódź Region and other voivodeships in the country. Most investments are made by entrepreneurs from the "Old 15" countries of the European Union. In recent years, the largest share were investments from the following countries, respectively:

- The Natherlands,
- Germany,
- Luxembourg,
- France.

Over 75% of enterprises with foreign capital were engaged in service activities. The most common was wholesale trade (Carrefour, Kaufland, Lidl, Aldi, Auchan), repair of motor vehicles, industrial manufacturing and real estate services.

The following sections dominated in industrial manufacturing:

- rubber and plastic products;
- metal finished products;
- food;
- clothing;
- textile products.

The average value of foreign capital in relation to the Gross Domestic Product of the region was 4.8% (annual average since 2004).

From the point of view of the number of enterprises with foreign capital in the total number of business entities in the Łódź Voivodeship, it is still assessed as small. In the group of enterprises employing 10 and more people it equaled 12.6% (annual average since 2004).

On the other hand, in the same period, the average annual share of the value of the core capital of enterprises with foreign participation amounted to 15.7% in relation to the total number of enterprises operating in the analyzed region. This proves that enterprises with foreign capital have relatively high core capital in relation to the number of enterprises.

About 60% of enterprises with foreign capital are micro-enterprises, employing only 1.5% of the staff working in enterprises with foreign capital. Small foreign enterprises employed 5.8%, medium – 18.9%, and large – 73.5% of the total number of people employed in enterprises with foreign capital (in the analyzed period).

It is worth noting, however, that in this period, 28.8% of all persons employed in the Łódź Voivodeship were working in enterprises with foreign capital.

The average employment in enterprises with foreign capital was 81 people, and in domestic enterprises – 86 people.

Investments in enterprises with foreign capital had for a long time been much stronger than in domestic enterprises, and later this tendency leveled out. In the years 2004-2010, in enterprises employing 10 people and more, the share of capital expenditure in sales revenues was as follows:

Table 4.1. *Share of capital expenditure in sales revenues in 2004-2010 in %*

	Years						
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Domestic Enterprises	4.0	5.0	5.2	7.8	9.3	5.9	6.7
Foreign Enterprises	8.0	10.0	9.0	10.0	9.0	10.0	7.0

Source: data of the Central Statistical Office

It can be clearly seen that in the years 2004-2010 the value of investing (except for 2008) was higher in enterprises with foreign capital than in domestic enterprises. Since 2011, the share of investments in both types of enterprises was very even – it fluctuated in the range of 5-7%.

The reduction of investment activity of enterprises with foreign capital in the years 2010-2013 was associated with the economic and financial crisis, but since 2014 the investment rates have been increasing in both groups. The previous practice indicates that the economic development of the voivodeship is to a large extent related to the activity of foreign companies and their investments.

Due to the fact that, in general, the organizational and legal form in the case of foreign direct investment is a branch, and therefore an economic entity with legal personality subject to the law of the host country and paying taxes in the host

country, the financial results of enterprises with foreign capital located in the Łódź Region are also significant.

It turns out that regardless of the crisis in the economy, the financial results of enterprises with foreign capital have been systematically improving, showing an advantage over domestic enterprises. This is illustrated in the table below.

Table 4.2. *Financial results of domestic enterprises and enterprises with foreign capital*

Indicators	Years										
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Net financial result in million PLN per enterprise											
- Foreign	3.2	2.3	3.7	3.8	4.5	4.1	5.6	4.9	6.4	6.8	6.6
- Domestic	0.9	0.8	0.9	1.7	1.5	1.7	2.1	2.1	1.7	1.8	2.5
Net turnover profitability in%											
- Foreign	5.42	3.31	4.94	4.47	4.15	3.70	4.45	3.45	4.47	4.43	4.40
- Domestic	3.71	3.36	3.68	6.02	4.91	5.68	6.62	5.74	4.30	4.88	6.47

Source: data of the Central Statistical Office

The data contained in Table 4.2 indicates an interesting phenomenon. The net financial result for the whole period assumed for the analysis is better in enterprises with foreign capital and, in addition, there is a clear increase in this indicator in 2004-2014. The differences in profitability between domestic enterprises and enterprises with foreign capital are quite high all the time. The profitability of domestic enterprises is also growing, but in none of the analyzed years it reached even half of the level achieved by enterprises with foreign capital. However, if we analyze the profitability indicators of net turnover, and therefore the ratio of profit to net revenues from sales, there is no predominance in enterprises with foreign capital. In fact, in most cases this ratio is more favorable for domestic enterprises. This proves that a better net financial result of an enterprise with foreign capital is achieved due to relatively higher turnover (in relation to domestic enterprises).

A survey, which was completed by about 130 local government bodies in the Łódź Voivodeship, allowed to determine what, in their opinion, the significance is of foreign direct investment for the Łódź Region and its administrative entities.

Using the 0-3 scale, the following answers were obtained referring to the benefits that the Łódź Voivodeship achieves in connection with the operations of enterprises with foreign capital participation: the weighted arithmetic means of these responses were as follows:

- economic recovery of municipalities – 2.54;
- increase in employment and labor productivity – 2.49;
- increase in the competitiveness of municipalities – 2.31;
- improving staff qualifications in the region – 2.22;

- transfer of modern technologies, knowledge and skills in the area of organization and management – 2.09;
- transfer of modern technical and technological solutions – 2.08;
- raising the standard of living of the population – 2.03;
- development of foreign contacts – 1.97;
- raising the scale of applications of "clean" technologies – 1.87;
- increase in cooperation of an enterprise with foreign capital with local companies – 1.84;
- increasing sales markets for companies in the region – 1.78;
- improvement of the level of internal competition by limiting the monopoly position of local entities – 1.63.

At the same time, the threats related to the operation of entities with foreign capital are clearly noticed. The 0-3 scale was also used to identify such threats. These include, consecutively:

- creating strong competition for local enterprises – 2.09;
- the risk of monopoly of a foreign company, elimination of competition – 2.02;
- deterioration of the environment due to the introduction of "dirty" technologies into the country, impossible to apply in the home country – 1.98;
- the risk of unfair competition in relation to local companies – 1.92;
- limiting the development capacity of local enterprises by weakening their position on the internal market and reducing the availability of external sources of financing – 1.83;
- taking over local enterprises to acquire their market – 1.77;
- using a stronger position to exploit the production resources of the host region – 1.67;
- weakening the domestic cultural patterns and traditions through dissemination of patterns closer to foreign investors – 1.64;
- increase in unemployment as a result of capital-intensive technologies – 1.63;
- transfer of highly qualified local staff to the headquarters of foreign companies – 1.58.

It should be noted that the benefits associated with foreign investments are very measurable. Generally speaking, they are associated with the acceleration of economic development, both through quantitative growth (increase in the employment and in the level of operations of individual sectors on the regional scale), and, first and foremost, qualitative growth, i.e. development (modern technologies, new organizational solutions, more trained employees, raising the standard of living of the population). In many cases, such effects actually take place, which is an undeniable merit of enterprises operating in a given region.

On the other hand, there are quite serious fears (often reasonably justified) that enterprises with foreign capital, instead of being located where there are gaps in the

supply of goods or services, will compete with local business entities and "push" them out from the market, take them over, or – in the case of cooperation with local enterprises – use their privileged position. All this makes it impossible to give an unambiguous positive or negative assessment of the role of these enterprises in the economy and development of the region.

Summary

In many countries foreign enterprises have become an important element of the domestic economy, participating largely in activating the economies of these countries and the region in which they have located their branches.

This is also the case in the Łódź Voivodeship, which from the point of view of attractiveness for foreign investors is located in the 7th-8th place (among 16 voivodeships), and therefore in the middle.

There is a difference between the perception of Łódź as a place of investment (the so-called Łódź subregion is located very high, most often in the 3rd place in Poland), and the remaining areas included in the voivodeship (region) of Łódź. Therefore, considering the region as a whole, it can be said that it presents typical attractiveness for Poland as a whole, in other words, it is quite representative of it.

The research carried out in 2015 showed that the impact of foreign investments on the economy and development of the Łódź Region is quite significant. This refers not only to the number of enterprises with foreign capital (in most cases these are enterprises with 100% share of foreign capital), but also to an important role in employment (reducing unemployment, which in the Łódź Region was one of the highest in Poland), high investment potential of these enterprises, their profitability translating into inflows into the central budget and incurring fees and participation in paying local taxes, all of this affects the fact that these enterprises play a large direct role in shaping the local economy. There are also very clear effects that impact specific sectors of the economy in the region.

This particularly regards the transfer of modern technological and organizational solutions, increase of employees' qualifications, cooperation with local companies, which may use this cooperation to increase their competitiveness. Apart from that, the existence of the foreign investor in the given sector often stimulates local enterprises to more innovative and faster development.

The Łódź Region also sees the threats associated with some aspects of the activity of foreign investors. However, as it was shown, at present it would be difficult to imagine the development of the analyzed region without the participation of foreign investors, and this clearly defines their role and importance for the region.

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5. Foreign Direct Investment and Regional Economic Growth: Empirical Evidence from Provincial Data in Indonesia

Introduction

For over past decades, FDI has become important factor in driving economic growth in developing countries. The rising number of developing countries have successfully attracted substantial amount of FDI to be invested in their countries (UNCTAD, 2006). Some economic theories suggested that FDI inflows would be beneficial to the host countries (Zhang, Does Foreign Direct Investment Promote Economic Growth? Evidence from East Asia and Latin America, 2001); (Barro & Sala-i-Martin, 2004); (Zhang, Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992-2004, 2006) etc. However, empirical evidences are not clear enough to identify these benefits in practices and their results have been inconclusive (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004), (Bengoa & Sanchez-Robles, 2003), (Durham, 2004), (Li & Liu, 2005), (Lipsey, 2006). Surprisingly, (Lipsey, 2006) suggested that the absence of robust conclusion primarily due to some countries vigorously pursue internal policies aimed at encouraging more FDI inflow.

Looking back of FDI history in Indonesia, the government has started liberalization policy in capital account since 1967 marked with announcement of Foreign Investment Law No. 1/1967. Then in 1970, the government adopted free floating foreign exchange system in 1970 which was followed by liberalizations of financial sector in 1980s. Since then, Indonesia has been considered as an attractive destination for foreign investment inflow and this makes interesting subject of empirical research in relation with growing economic of a nation in the context of developing country.

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Previous studies of relationship FDI with Economic Growth mostly concentrated on aggregate effects of FDI on economic growth of a country or across some countries, and put little attention on sub-country level such as regional or provincial level in a country. To the best of our knowledge, the study of impact of FDI inflow on regional economic growth has never be conducted by any research scholar before. Therefore, the objective of this study is to examine the impact of set of input variables, which emphasize on FDI located over all Indonesian provinces, on output in term of regional economic growth.

This paper contributes on FDI-Economic growth literature in several points. Firstly, we employ a case study in single country data that control bias due to diversity of cultural, legal, and institutional compare with conducting study across countries. Secondly, we apply regional data at provincial level in Indonesia which is different with previous study conducted by (Khaliq & Noy, 2007) who used sectoral data in Indonesian context. Finally, we believe that after Indonesia adopt decentralization fiscal regime since enactment of Law No.22/1999 about Regional Government and Law No. 25 /1999 about Fiscal Balance between Central and Regional Government will encourage each region to attract more investment in their region. This study may provide clear insight for regional decision makers regarding FDI benefit to drive regional economic growth.

5.1. Literature Review

In the neo-classical view, (Solow, 1957) pioneered the contribution of growth theory as theoretical basis for growth accounting. He decomposed the contribution to output growth of growth rates of input factors, such as: capital, labor, and technology. The growth accounting approach in the form of the aggregate production function can be written in following function:

$$Q = F\left(K.L,t\right) \tag{5.1}$$

Where Q represents output and K and L represent capital and labor inputs in "physical" units. The variable t for time appears in F to allow for technical change. It will be seen that "technical change" as a short hand expression for any kind of shift in the production function. Thus slowdowns, speed-ups, improvements in the education of the labor force, and all sorts of things will appear as "technical change".

Using Solow's model, (Findlay, 1978) extended this model and suggested that the growth rate of technology diffusion in an increasing function of FDI. By differentiating between inputs into foreign capital and domestic capital, he concluded that foreign capital positively correlated with domestic capital. Surprisingly, he

found that the rate of technology transfer in a developing country is a decreasing function of both the technology gap and the share of FDI in total capital stock.

The further development of Solow's model, (Mankiw, Romer, & Weil, 1992) argued that omitting human capital accumulation in Solow's model would cause biased estimation of saving and population growth. He suggested that cross country variation in income per capita is a function of the saving rate, population growth rate, and labor productivity level.

Econometric model of endogenous growth have been applied to investigate the effect of FDI on economic growth through the diffusion of technology ((Romer, Endogenous Technological Change, 1990), (Romer, Capital, Labor, and Productivity, 1991), (Barrell & Pain, 1997), (Barro & Sala-i-Martin, 2004), (Helpman, 2004). According to (Helpman, 2004), endogenous growth theory emphasized on two critical channels for investment to affect economic growth, viz. the impact on the range of available products and the impact on the stock of knowledge accessible for research and development. (Romer, Endogenous Technological Change, 1990) argued that FDI accelerate economic growth through strengthen human capital as the most essential factor in R&D effort.

According to (Zhang, Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992-2004, 2006), standard propositions of the neoclassical theories suggest that FDI is likely to be an engine of host economic growth, because (a) inward FDI may enhance capital formation and employment augmentation; (b) FDI may promote manufacturing exports; (c) FDI may bring into host economies special resources such as management know-how, skilled labor access to international production networks, and established brand names; and (d) FDI may result in technology transfers and spillover effects (Markusen & Venables, 1999); (UNCTAD, 2006)

Recent study conducted by (Apostolov, 2016) in Southeast European economies using Cobb–Douglas production function with panel dataset examines the interrelationships between output and set of variables that influence output. He found that FDI mold the countries' economy and the whole region as a panel which implies the way foreign ownership might influence business environment and economy's output.

In contrast to all these positive findings, (Firebaugh, 1992) documented several reasons why FDI inflows may be less profitable than domestic investment, or even more be detrimental, among others: multinational firms are less contribution to government revenue, they discourage to reinvest their profits, they are reluctant to develop linkage with domestic firms, or they apply inappropriately capital-intensive technique. FDI may be detrimental if it creates "crowd-out" domestic business and stimulates inappropriate consumption pattern.

5.2. Methodology and data

5.2.1. Econometrics model

According to *(Gujarati, Porter, & Gunasekar, 2012)*, the Cobb-Douglas (CD) production function, in its stochastic forms, may be expressed as:

$$Y_i = \beta_1 K_i^{\beta_2} L_i^{\beta_3} e^{u_i} \tag{5.2}$$

Where: Y=output,
L=labor input,
K=capital input,
u = stochastic disturbance term,
e = base of natural logarithm.

The CD function as in equation (5.2) can be transformed into log-transform and obtain linear equation as follow:

$$ln\, Y_i = ln\, \beta_1 + \beta_2\, ln\, K_i + \beta_3\, ln\, L_i + u_i$$

or

$$ln\, Y_i = \beta_0 + \beta_2\, ln\, K_i + \beta_3\, ln\, L_i + u_i \tag{5.3}$$

Where:

$$ln\, \beta_1 = \beta_0$$

The model as equation (5.3) is linear in parameter and and is therefore a linear regression model. This model is linear in parameter and , linear in logarithm of the variable Y, K, and L and can be estimated by OLS regression. Because of this linearity, this model is called log-log, double log, or log-linear model (Gujarati, Porter, & Gunasekar, 2012).

Moreover, (Gujarati, Porter, & Gunasekar, 2012) explained that the property of CD function are:

1. is the (partial) elasticity of output (Y) with respect to Labor input (L), that measures the percentage of change in output (Y) for change in Labor input (L), holding the Capital input (K) constant.
2. Likewise, s the (partial) elasticity of output (Y) with respect to Capital input (Y), holding the Labor input (L) constant.

3. The sum gives information about the return of scale, the response of output (Y) to a proportionate change in inputs (K and L). If this sum is 1, then there are constant returns to scale, that is doubling the input will double the output, tripling the input will be tripling the output, and so on. If the sum is less than 1 than there are decreasing return to scale, if sum is more than 1 than there are increasing return to scale

To examine our empirical estimate, this study adopts CD model that implements log-log linear model regression using panel data. The empirical estimation based on modified form of equation (3), with incorporating FDI and DDI as the Capital Input (K), are as follow:

$$ln\,\mathrm{GRDP}_{it} = \alpha + \beta_1\, ln\,\mathrm{FDIR}_{it} + \beta_2\, ln\,\mathrm{DDIR}_{it} + \beta_3\, ln\,\mathrm{EMPL}_{it} + \mathrm{u}_{it} \qquad (5.4)$$

Where:

GRDP_{it} = Gross Regional Domestic Product for province-i and year-t
FDIR_{it} = Foreign Direct Investment for province-i and year-t
DDIR_{it} = Domestic Direct Investment for province-i and year-t
EMPL_{it} = Total number of people employed for province-i and year-t
u = stochastic disturbance term

In this study, we analyze full data set as well as group of island data set. In full data analysis, we include all of 34 provinces in Indonesia. Meanwhile in group of island analysis, we make 6 group of island in Indonesia which consists of some provinces based on *Statistics Indonesia (BPS) classification as in table 5.1.*

5.2.2. Data

In this study, we use annual data from 34 provinces in Indonesia during the period 2006-2016. The data are mainly gathered from Indonesian Statistics Central Bureau (Badan Pusat Statistik or BPS) and Investment Coordinating Board (Badan Koordinasi Penanaman Modal or BKPM). Data about GRDP and labor are collected from BPKM, while data about FDI and DDI are collected from BPKM.

5.3. Foreign Direct Investment in Indonesia

FDI in Indonesia began from 1870s when Dutch colonized Indonesian territory until 1941. Then it was followed by Japanese colonial era during 1942-1945. After Indonesia got independence in 1945, the "old order" regime ruled over period

1945-1965 and it was replaced by the "new order" regime which administered during 1966-1998. After Asian financial crisis hit Indonesia, the "reformation" era has been started in 1999 and followed by fiscal decentralization since 2001.

In the early of 1967, the Government of Indonesia (GoI) launched liberalization program marked with enactment of Investment Law No. 1/1967. Subsequently, during some periods from 1970s until 1996, Indonesia enjoyed rapid economic growth rate around 7.3%. However, financial crisis hit Asian countries in 1998 resulted capital outflow from Indonesia. Central bank of Indonesia recorded negative FDI around USD 3 billion per year during the period 1998-2002. The impact of this financial crisis made Indonesian GDP decreased dramatically with growth contraction by 13% in 1998.

The institution which coordinates foreign investment project in Indonesia is namely Investment Coordinating Board (in bahasa: Badan Koordinasi Penanaman Modal or BPKM). The BKPM has duties and functions as follows: (1) a guarantee for foreign companies to freely transfer profits and repatriate their capital after a certain period; (2) a basic tax holiday for foreign investors; (3) exemption from payment of import duties and sales taxes on machinery and equipment; and (4) licenses for foreign companies to operate for a period of 30 years after their legal formation.

To provide legal protection for foreign investors the GoI has concluded Investment Guarantee Agreement (IGA) with 61 countries. GoI has also signed bilaterally the Investment Promotion and Protection Agreements with 55 countries. Meanwhile, to avoid incidental double taxation, tax treaties with 50 countries. Moreover, GOI has also signed an agreement on the Convention on the Settlement of Investment Disputes in 1970 and joined the Multilateral Investment Guarantee Agency (MIGA) in 1986.

5.4. Indonesian Country at glance

Indonesia consists of 16 056 islands with total area as 1,916,862.20 km2 and has of 34 provinces by total number population as 261,890.9 thousand people in 2017 and (BPS, Statistical Yearbook of Indonesia, 2018). Those thousands of islands in Indonesia can be categorized into 6 groups of islands, viz. Sumatera, Jawa, Bali & Nusa Tenggara, Kalimantan, Sulawesi, Maluku & Papua.

Table 5.1. *Name of Groups of Island and Province in Indonesia*

Group	Name of group of Island	No. of Provinces	Name of Provinces
1	Sumatera	10	Aceh, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kepulauan Bangka Belitung, and Kepulauan Riau
2	Jawa	6	DKI Jakarta, Jawa Barat, Jawa Tengah, DI Yogyakarta, Jawa Timur, and Banten
3	Bali & Nusa Tenggara	3	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur
4	Kalimantan	5	Kalimantan Barat, Kalimantan Tengah, Kalimantan Selatan, Kalimantan Timur, and Kalimantan Utara
5	Sulawesi	6	Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo, and Sulawesi Barat
6	Maluku & Papua	4	Maluku, Maluku Utara, Papua Barat, Papua
Total	6 Group of island	34 Provinces	

Source: Statistics Indonesia (Badan Pusat Statistik or BPS)

5.4.1. Gross Regional Domestic Product (GRDP) across provinces in Indonesia

Figure 5.1 shows that in general GRDP at province level in Indonesia steadily increase from total IDR 3,118,306 billion in 2006 to IDR 13,824,955 billion in 2017 (BPS, Gross Regional Domestic Product of Provinces in Indonesia by Industry, 2006-2017). The first, second and third highest GDRP are reached by Provinces of DKI Jakarta, Jawa Timur, and Jawa Barat by IDR 2,410,373 billion, IDR 2,019,200 billion, and IDR 1,786,092 billion respectively in 2017. All of these three provinces are located in Jawa Island.

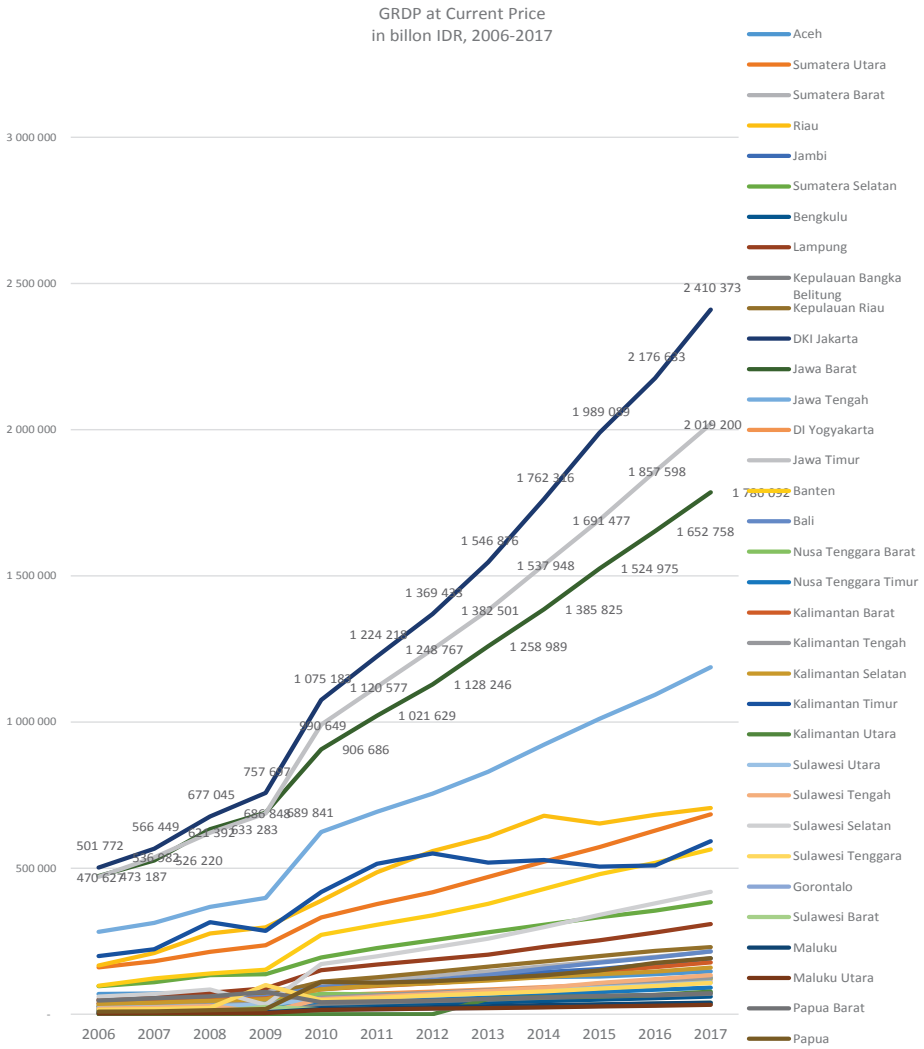

Figure 5.1. *Gross Regional Domestic Product (GRDP) across Provinces in Indonesia*
Source: Statistics Indonesia (Badan Pusat Statistik or BPS)

5.4.2. Foreign Direct Investment –Regional (FDIR) located across Provinces in Indonesia

Figure 5.2 – shows statistic of Foreign Direct Investment Regional (FDIR) realization based on capital investment activity report by location. Total value of FDI from all province in Indonesia exhibits significant increase from USD 5,977 million in 2006 jump to USD 32,240 million in 2017 (BKPM, Statistic of Foreign

Direct Investment Realization Based On Capital Investment Activity Report by Location, 2006-2017). The highest total value of FDI form 2006-2017 are reached by provinces of DKI Jakarta, Jawa Barat, and Jawa Timur by USD 55,658 million, USD 47,214 million, and USD 23,799 million respectively; in other word these provinces absorb around USD 4,638 million, USD 3,935 million, and USD 1,983 million of FDI annually. The total value of FDI is mostly provinces located in Jawa Island and then followed by provinces in Sumatra Island.

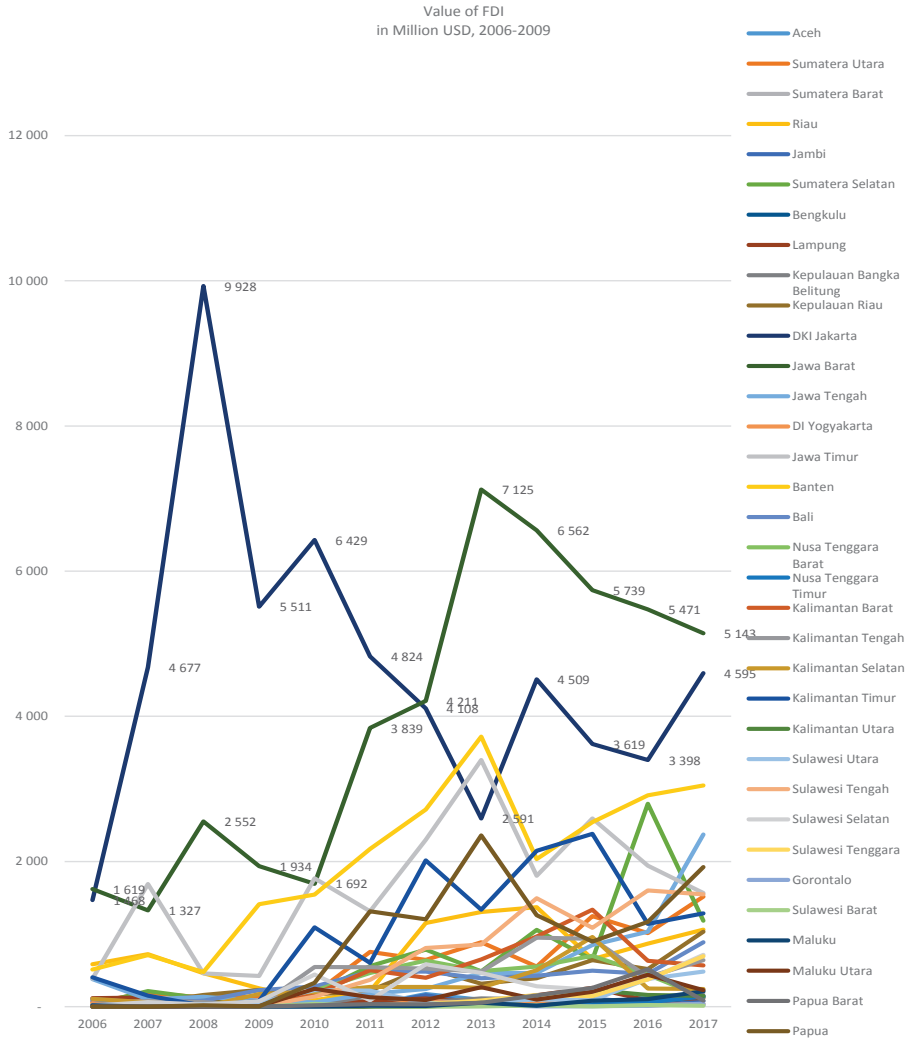

Figure 5.2. *Foreign Direct Investment – Regional (FDIR) across Provinces in Indonesia*
Source: Investment Coordinating Board (Badan Koordinasi Penanaman Modal or BKPM)

5.4.3. Domestic Direct Investment-Regional (DDIR) located across Provinces in Indonesia

Figure 5.3 exhibits statistic of Domestic Direct Investment Regional (DDIR) realization based on capital investment activity report by location. Total value of DDI from all province in Indonesia exhibits significant increase from IDR 20,788 billion in 2006 jump to IDR 262,351 billion in 2017 (BKPM, Statistic of Domestic Direct Investment Realization Based On Capital Investment Activity Report by Location, 2006-2017). The highest total value of DDIR form 2006-2017 are reached by provinces of Jawa Timur, Jawa Barat, and DKI Jakarta by IDR 248,450 billion, IDR 139,790 billion, and IDR 186,811 billion, respectively; in other word these provinces absorb around IDR 20,704 billion, IDR 15,568 billion, and IDR 11,649, respectively per annum. Again, majority of total DDIR values are provinces located in Jawa Island and then followed by provinces in Sumatra Island.

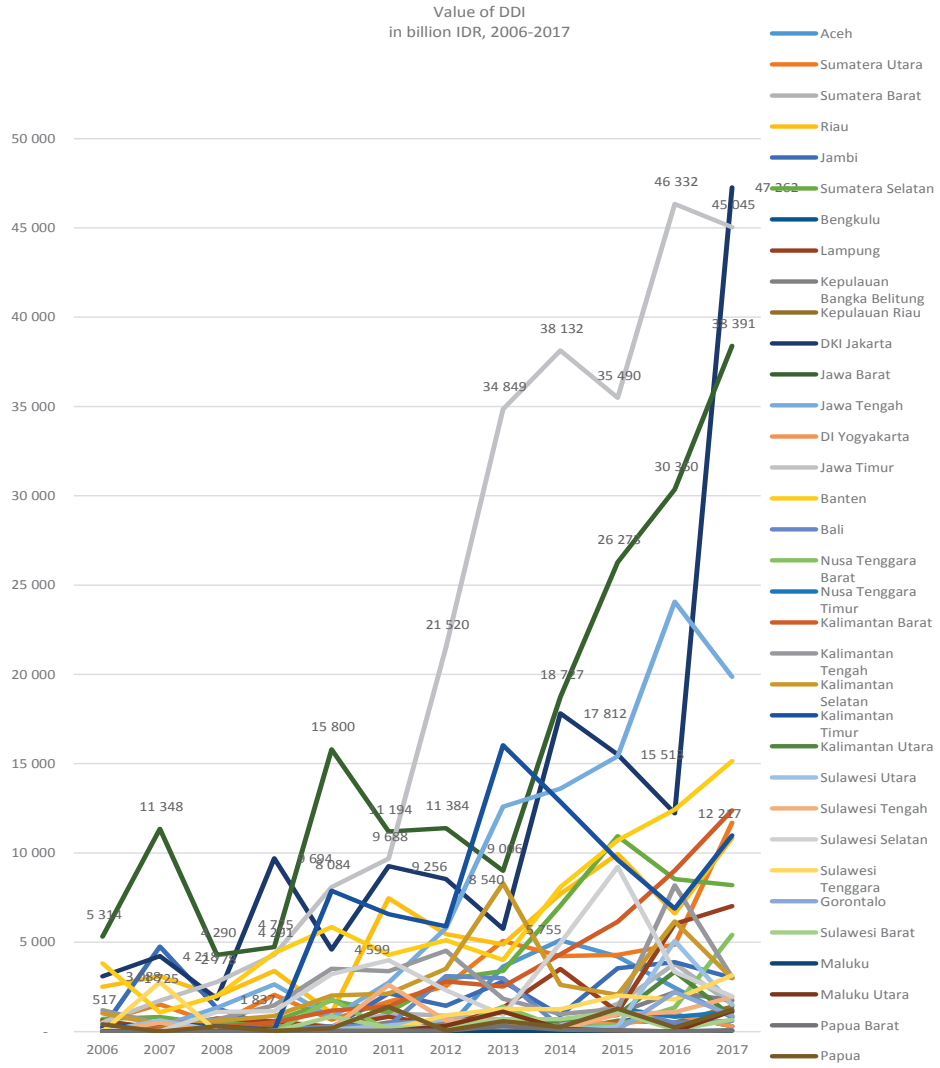

Figure 5.3. *Domestic Direct Investment-Reginal (DDIR) across Provinces in Indonesia*
Source: Investment Coordinating Board (Badan Koordinasi Penanaman Modal or BKPM)

5.4.4. Total Employment (EMPL) across Provinces in Indonesia

Figure 4 exhibits the number of people employed by Province from 2006 to 2017 based on Survey of National Work force (Survei Angkatan Kerja Nasional or Sakernas) conducted by Indonesian Statistics (BPS) semiannually in February and

August (BPS, National Labor Force Survey (Survei Angkatan Kerja Nasional or Sakernas), 2006-2017). The data analyzed in this study are depicted from Sakernas, BPS in August every year. This figure shows that majority of Indoensian people are worked in provinces in Jawa island such as: Jawa barat, Jawa Timur, and Jawa Tengah with average number of employment are 19,045,917 people, 17,808,910 people and 16,207,303 people per year, respectively. Still, majority of total employment are provinces located in Jawa Island and then followed by provinces in Sumatra Island.

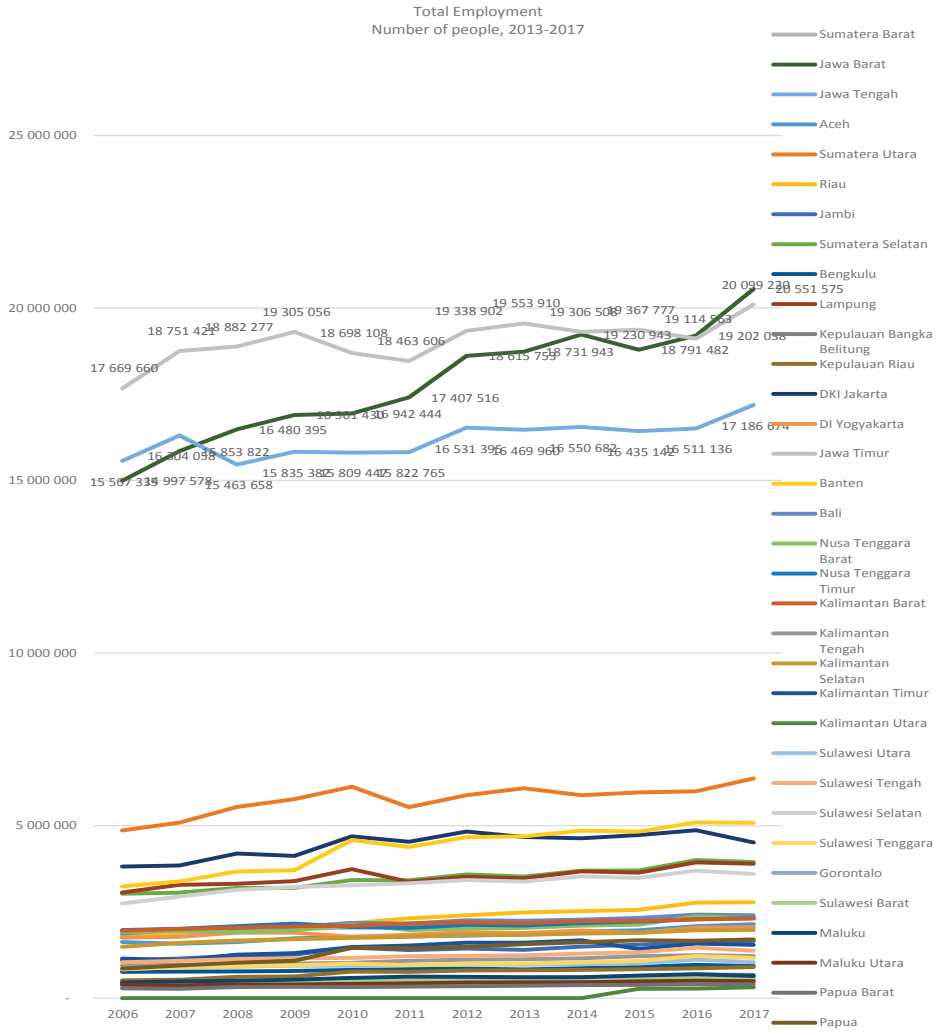

Figure 5.4. *Total Employment (EMPL) across Provinces in Indonesia*

Source: Survey of National Work force (Survei Angkatan Kerja Nasional or Sakernas) by Statis-

tics Indonesia (BPS)

5.5. Results and Findings

5.5.1. Results of regression

The result of regression that describe relationship between foreign direct investment and regional economic growth as in equation (4) can be seen in Table 5.3. According to (Gujarati, Porter, & Gunasekar, 2012), paned data can be modelled into Pooled OLS (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM) as Table 5.3 panel a, panel b, and panel c respectively. In PLS model, it simply pooled all observations and estimate a grand regression without considering cross-section or time series nature of data. This model is also known as Constant Coefficient Model (CCM). Meanwhile, *in* FEM allows each cross-section unit to have its own intercept (α_i) by employing dummy variable or be known as Least Square Dummy Variable (LSDV) model.

Unlike LDV model, REM allows each cross-section unit to its own (fixed) intercept value, which is assumed that intercept values are a random drawing from a much bigger population of individuals. Moreover, (Gujarati, Porter, & Gunasekar, 2012) explained that basic idea of REM is that individual intercept (α_i) as in FEM to be assumed as random variable with mean value of α (without subscript-*i*). Hence, individual intercept can be expressed as: $\alpha_i = (\alpha_i + \varepsilon_i)$, where ε_i is a random error term with a mean value of zero and a variance of σ_ε^2. Therefore, this model is also known as Error Component Model (ECM).

5.5.2. Model selection

There are three tests that can be used to choose the data panel regression model (PLS, FEM, or REM) based on the characteristics of data possessed, namely: Chow Test (Redundant Fixed Effect – Likelihood Ratio), Breusch-Pagan test (Lagrange Multiplier Test), and Hausman Test (Correlated Random Effects).

Based on Table 5.4., **Chow Test** shows that significant value of both F-test and Chi-square test which indicates that all data sets prefer FEM than PLS, except for Bali and Nusa Tenggara group of island. Similarly, **Breusch-Pagan Test** shows that Chi-square tests are significant for all data set, except for Bali and Nusa Tenggara. This indicate that those data sets prefer REM over PLS. Lastly, **Hausman Test** show significant Chi-square test for all data sets except for Bali and Nusa Tenggara. In other word, all data sets, except for Bali and Nusa Tenggara, are better use FEM rather than REM in modelling data panel regression. Therefore, in accordance to table 5.4, the models selected for empirical analysis are **Fixed Effect Model (FEM)**

for full sample data set as well as all group of island data sets, except for Bali and Nusa Tenggara which is favorable using Pooled Least Square (PLS).

Table 5.3. *Results of Regression*

Panel a – Pooled Ordinary Least Square (PLS)

	Full Sample			Sumatera			Jawa			Bali & Nusa T.			Kalimantan			Sulawesi			Maluku & Papua		
Province / Obs.	34 / 345			10 / 107			6 / 71			3 / 29			5 / 51			6 / 56			4 /31		
	Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.	
C	1.203	0.007	***	2.209	0.020	**	3.635	0.003	***	-70.481	0.000	***	5.590	0.057	*	-0.180	0.883		4.834	0.065	*
LOG(?_FDIR)	0.195	0.000	***	0.210	0.000	***	0.163	0.003	***	0.150	0.000	***	0.220	0.004	***	0.140	0.000	***	0.275	0.000	***
LOG(?_DDIR)	0.116	0.000	***	0.104	0.001	***	0.215	0.001	***	-0.028	0.087	*	0.124	0.236		0.085	0.008	***	0.057	0.267	
LOG(?_EMPL)	0.607	0.000	***	0.550	0.000	***	0.420	0.000	***	5.569	0.000	***	0.277	0.182		0.726	0.000	***	0.318	0.117	
R-squared	0.811			0.749			0.817			0.933			0.413			0.819			0.645		
F-statistic	487.88			102.24			99.48			116.60			11.03			78.67			16.33		
Prob(F-statistic)	0.000	***		0.000	***		0.000	***		0.000	***		0.000	***		0.000	***		0.000	***	

Panel b – Fixed Effect Model (FEM)

	Full Sample			Sumatera			Jawa			Bali & Nusa T.			Kalimantan			Sulawesi			Maluku & Papua		
Province / Obs.	34 / 345			10 / 107			6 / 71			3 / 29			5 / 51			6 / 56			4 /31		
Ind. Variables	Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.	
C	-42.091	0.000	***	-42.173	0.000	***	-43.064	0.000	***	-73.824	0.000	***	-30.858	0.000	***	-47.914	0.000	***	-46.083	0.000	***
LOG(?_FDIR)	0.070	0.000	***	0.051	0.020	**	-0.009	0.823		0.125	0.000	***	0.083	0.001	***	0.093	0.027	**	0.023	0.478	
LOG(?_DDIR)	0.046	0.000	***	0.030	0.087	*	0.185	0.000	***	-0.029	0.098	*	0.052	0.178		0.012	0.699		0.041	0.053	*
LOG(?_EMPL)	3.662	0.000	***	3.707	0.000	***	3.450	0.000	***	5.807	0.000	***	2.942	0.000	***	4.199	0.000	***	4.209	0.000	***
R-squared	0.964			0.948			0.964			0.939			0.949			0.882			0.973		
F-statistic	231.78			142.75			208.57			70.74			113.14			43.86			144.10		
Prob(F-statistic)	0.000	***		0.000	***		0.000	***		0.000	***		0.000	***		0.000	***		0.000	***	

Panel c – Random Effect Model (REM)

	Full Sample			Sumatera			Jawa			Bali & Nusa T.			Kalimantan			Sulawesi			Maluku & Papua		
Province / Obs.	34 / 345			10 / 107			6 / 71			3 / 29			5 / 51			6 / 56			4 /31		
Ind. Variables	Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.		Coef.	Prob.	
C	-5.502	0.000	***	-9.856	0.000	***	-14.857	0.000	***				-8.946	0.037	**	-0.361	0.820		4.834	0.000	***
LOG(?_FDIR)	0.156	0.000	***	0.124	0.000	***	0.036	0.360			n.a.		0.100	0.000	***	0.154	0.000	***	0.275	0.000	***
LOG(?_DDIR)	0.085	0.000	***	0.074	0.000	***	0.216	0.000	***				0.120	0.001	***	0.081	0.004	***	0.057	0.001	***
LOG(?_EMPL)	1.100	0.000	***	1.429	0.000	***	1.639	0.000	***				1.370	0.000	***	0.736	0.000	***	0.318	0.000	***
R-squared	0.669			0.640			0.712						0.744			0.726			0.645		
F-statistic	229.54			61.06			55.14				n.a.		45.57			45.87			16.33		

Prob(F-statistic)	0.000	***		0.000	***		0.000	***					0.000	***		0.0

+) Random Effect Model (REM) is not applicable to Bali and Nusa Tenggara group of island, due to number of individual (province) is smaller than number of variables. Model-fit statistics are reported at the bottom of the table. P-values are *** Significant at 1% level, ** Significant at 5% level, * significant at 10% level.

Table 5.4. *Model Selection amongst Pooled OLS (PLS), Fixed effect model (FEM), and Random Effect Model (REM)*

	Full Sample		**Sumatera**		**Jawa**		**Bali & Nusa Tenggara**		**Kalimantan**		**Sulawesi**		**Maluku & Papua**	
No. Provinces / Observations	34 / 345		10 / 107		6 / 71		3 / 29		5 / 51		6 / 56		4 /31	
Chow Test -- to select between FEM and PLS														
Cross-section F-Test	40.21		40.03		51.06		1.06		111.73		4.97		97.24	
Prob. F-test	0.000	***	0.000	***	0.000	***	0.362		0.000	***	0.001	***	0.000	***
Cross-section Chi-square	575.89		168.57		115.92		2.57		124.09		23.76		79.88	
Prob. Chi-Square	0.000	***	0.000	***	0.000	***	0.277		0.000	***	0.000	***	0.000	***
Model Preferred	**FEM**	**FEM**	**FEM**	**PLS**	**FEM**	**FEM**	**FEM**							
Breusch-Pagan Test -- to select between REM and PLS														
Cross-section Chi-square	576.48		62.67		112.71		0.39		174.08		0.19		27.05	
Prob. Chi-Square	0.000	***	0.000	***	0.000	***	0.531		0.000	***	0.661		0.000	***
Model Preferred	**REM**	**REM**	**REM**	**PLS**	**REM**	**PLS**	**REM**							
Hausman Test -- to select between FEM and REM														
Cross-section Chi-square	267.57		123.64		40.70		n.a.		22.18		18.93		291.71	
Prob. Chi-Square	0.000	***	0.000	***	0.000	***			0.000	***	0.000	***	0.000	***
Model Preferred	**FEM**	**FEM**	**FEM**	**n.a.**	**FEM**	**FEM**	**FEM**							

*+) Random Effect Model (REM) could not be applicable in Province Bali and Nusa Tenggara, due to number of individuals (provinces) is less than number of variables. P-values are *** Significant at 1% level, ** Significant at 5% level, * significant at 10% level*

5.5.3. Discussion

5.5.3.1. Full Sample Analysis (Country Level)

Based on table 5.4., the analysis of full sample data set is favorable using Fixed Effect Model (FEM), thus the regression result of equation (4) can be seen in table 5.3. panel b. From statistics point of views, the R-squared value is 0.964, it means that about 96.4 percent of the variation in the (log of) Gross Regional Domestic Product (GRDP) is explained by the (log of) Foreign Direct Investment Regional (FDIR), Domestic Direct Investment Regional (DDIR) and Total Employment (EMPL). Therefore, the estimated equation in transformed model of CD function is as follow:

$$\log(GDPB) = -42.091 + 0.070*\log(FDIR) + 0.046*\log(DDIR) + 3.662*\log(EMPL) + [CX=F]$$

The (partial) elasticity of GRDP with respect to FDIR is 0.070. In other word, the change in GRDP by 0.070 percent for change in FDIR by 1 percent, holding the other explanatory variables constant. Similarly, holding other variables constant, a 1 percent increase in DDIR leads on the average to about 0.0046 percent increase in GRDP. The GRDP elasticity of EMPL is 3.662. In other word, over the 34 provinces in Indonesia, holding other variables constants, a 1 percent increase in EMPL leads on the average to about 3.663 percent increase in GRDP. The parameter of return to scale is increasing by 3.7784 or (0.070+0.046+3.662) that is total of the input factors (FDIR + DDIR + EMPL) will around tripling to quadrupling the output (GRDP)

The estimated parameter shows positive sign, means that increasing all input factors (FDIR, DDIR, and EMPL) lead to increasing output (GRDP). This results support the standard propositions of the neoclassical theories suggest that FDI is likely to be an engine of host economic growth (Zhang, Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992-2004, 2006) and the contribution of FDI to growth not only through capital formation and technology transfers ((Borensztein, Gregorio, & Lee, 1998), (Barro & Sala-i-Martin, 2004) but also through the level of knowledge and skill acquisition (Mello, Foreign direct investment in developing countries and growth: A selective survey, 1997) (Mello, Foreign direct investment-led growth: evidence from time series and panel data, 1999)

This result also confirm previous researches, such as: FDI appears to enhance economic growth in the long run for the East Asian and Latin America economies, including Indonesia (Zhang, Does Foreign Direct Investment Promote Economic Growth? Evidence from East Asia and Latin America, 2001); FDI also shows positive and significant impact on economic growth in the host countries in Latin America (Bengoa & Sanchez-Robles, 2003); FDI will increase growth in countries which adopt trade promotion policy (Balasubramanyam, Salisu, & Sapsford, 1996); FDI and openness contribute positively to the growth performance of oil importing countries (OIC) (Samimi, Rezanejad, & Ariani, 2010); the positive and significant impact of FDI on economic growth only when the host countries have better level of initial GDP and human capital (Wu & Hsu, 2008); FDI and human capital both have positive impact on the economic growth of developing countries (Li & Liu, 2005); Moreover, (Vu & Noy, 2009) concluded that FDI has positive and direct impact on economic growth as well as an indirect effect through its impact on labor productivity.

5.5.3.2. Sub Sample Analysis (Group of Island)

The analysis of group of island as in table 5.4. exhibits that most of group of island are favorable using fixed effect model (FEM), except for Bali & Nusa Tenggara islands which is preferable using Pooled OLS (PLS). Therefore, the regression

results as model (4) using FEM for all group of island, except for Bali & Nusa Tenggara, can be seen in table 5.3 panel b; while the regression results as model (4) using PLS for Bali & Nusa Tenggara islands in table 5.3 panel a.

The variable of FDIR impacts positively significant on GRDP for provinces in all group of island, but provinces in Jawa Island shows negatively insignificant impact on GRDP. This results are in line with standard propositions of the neoclassical theories which suggests that FDI is likely to be an engine of host economic growth (Zhang, Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992-2004, 2006). According to (Zhang, Does Foreign Direct Investment Promote Economic Growth? Evidence from East Asia and Latin America, 2001), the existence of the positive relationship between FDI and economic growth and magnitude of those relationship depends upon host country's conditions.

Similarly, DDIR impact positively significant on GRDP for provinces in Sumatera, Jawa, and Maluku & Papua group of island. However, provinces in Kalimantan Island and Sulawesi Island do not show significant effect of DDIR on GRDP though the impact of DDIR on GRDP is positive. This results confirm (Vehorn & Vasarevic, 2011) findings which prove that FDI and domestic investment are statistically significant determinants of economic growth in Central and East European countries and also study by (Kosztowniak, 2014) in Poland. Surprisingly, provinces in Bali & Nusa Tenggara Island exhibits negatively significant impact of DDIR on GRDP. This suggest that Bali & Nusa Tenggara is no longer need DDIR as source of investment in order to increase GRDP, though FDIR is still required in contributing GRDP.

Similar with FDIR, variable of EMPL shows positively significant impact on GRDP for all of group of island. This results supports (Apostolov, 2016) findings who study impact of employment on output using CD function model in Albania. According to (Lim, 2001), positive impact of total employment on output indicates that the economy has been focused on labor, due to abundance of this factor of production

Conclusion

In general, foreign direct investment (FDIR) located over provinces in Indonesia positively impacts on regional economic growth (GRDP), both in full sample analysis and in group of island analysis. However, this variable do not show significant impact on economic growth in provinces lie in Jawa and Maluku & Papua Islands

Similar with FDIR, domestic investment (DDIR) commonly has also positive contribution in regional economic growth (GRDP) of all provinces in Indonesia.

Surprisingly, provinces in Bali & Nusa Tenggara Islands, DDIR seem to impact negatively on regional economic growth.

Uniformly, total employment (EMPL) positively effects on regional economic growth (GRDP) of all provinces in Indonesia, due to abundance of labor market in Indonesia. This result supports (Lim 2001) argument that in an economy where labor market is abundant, EMPL will positively impact on GRDP.

Policy Implementation

This study may provide empirical evidence to decision and policy makers how mechanism of foreign direct investment together with domestic investment and total employment on regional economic growth.

BKPM as investment coordinating agent may re-allocate FDI form provinces in Jawa and Maluku & Papua Island to provinces which need more this investment capital such as in: Sumatera, Bali & Nusa Tenggara, Kalimantan, or Sulawesi Islands.

Moreover, BKPM should make better coordination with provincial governments of Bali and Nusa Tenggara Islands in reducing domestic investment, due to negative effect of domestic investment on regional economic growth of these provinces.

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6. The Role of Foreign Direct Investment in Ethiopia

Introduction

According to Hill (2011) over the past three decades a fundamental shift has been occurring in the world economy. We have been moving away from a world in which national economies were relatively self-contained entities, isolated from each other by barriers to cross-border trade and investment; by distance, time zones, and language; and by national differences in government regulation, culture, and business systems. And we are moving toward a world in which barriers to cross-border trade and investment are declining; perceived distance is shrinking due to advances in transportation and telecommunications technology; material culture is starting to look similar the world over; and national economies are merging into an interdependent, integrated global economic system (Hill, 2011).

Foreign direct investment can play an imperative role in achieving rapid economic growth in developing countries. FDI used as bridging the gap between domestic saving and investment and bringing the latest technology and management know-how from developed countries. Its potential benefit includes employment generation and growth, stimulate domestic investment, promote export, supplementing domestic savings, integration into the global economy, raising skills of local workers, improve efficiency, transfer of modern technologies, management skills and potential cooperation and business opportunities for local businesses.

Global foreign direct investment flows better the pre-crises figure US$ 1651 billion in 2011. In 2011 Africa received US$ 47.598 billion, representing 2.8 percent of global foreign direct investment inflows and 2.3 per cent of Africa's gross domestic product. Africa's share of FDI flows to developing countries fell from 9 per cent in 2008 to 6 per cent in 2011. The amount of FDI inflows to Africa in 2011 figure US$ 47.598 billion represents a major decline compared to the 2008 figure of US$ 58.89 billion. In fact, since the onset of the global economic and financial in 2008, FDI inflows to Africa have been on the decline (UNCTAD, 2012).

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According to Gentvilaitė (2010) confirmed that attracting foreign direct investment is an important objective of every economy that has long-term goals of economic welfare. Foreign direct investment increases the host country's wealth as well as it encourages economic growth if certain conditions are met. FDI flows can partly be affected by active country policies and this implication brings a responsibility on each country of managing FDI (Ibid).

According to Khan and Khilji (2013) explained that many developing countries have increasingly turned to foreign direct investment as a source of the capital, technology, managerial skills, and market access needed for sustained economic growth and development. The move towards more open FDI regimes has been accompanied by a shift in many countries towards greater deregulation of economic activity and greater reliance on market forces in their domestic as well as external economies (Ibid).

Thus, over the past decade, there has been a significant increase in domestic investment in Africa both in monetary terms and as a percentage of gross domestic products (GDP). For instance, in 2010 domestic investment in Africa was about US$ 353 billion, compared to US$100 billion in 2000. In addition, the share of domestic investment in GDP rose from about 17 percent in 2000 to 21 percent in 2010 (UNCTAD, 2013). Although the increase in domestic investment in Africa is significant, it is worth reminding that the share of investment in GDP in Africa is well below the investment share of other developing regions, in particular developing countries in Asia, where the share was about 35 percent in 2010 (Ibid). In this observe, there is a need for African countries to raising their investment ratios to the levels observed in rapidly growing emerging developing countries to enhance prospects for sustained economic growth.

6.1. Statement of the problem

Most countries in the world compete and welcome for foreign direct investment for the reason that foreign direct investment is an engine of economic development of the host countries. The world has increasingly accepted that private capital has a vital role to play in economic development. Foreign direct investment throws into capital accumulation and technological progress and is an imperative catalyst for industrial development.

Global foreign direct investment (FDI) inflows rose 16 percent to reach US$ 1524 422 million in 2011, surpassing the 2005–2007 pre-crisis level for the first time, despite the continuing effects of the global financial and economic crisis of 2008–2009 and the ongoing sovereign debt crises. This increase occurred against a background of higher profits of transnational corporations (TNCs) and relatively

high economic growth in developing countries during the year (world investment report, 2012).

According to Dupasquier and Osakwe (2005) explained that African countries have not been successful in attracting significant foreign direct investment flows, reflecting largely the combined effects of political and macroeconomic instability, weak infrastructure, poor governance, inhospitable regulatory environments, the intensification of competition for FDI flows due to globalization, and poor marketing strategies. There is the need to reverse the declining FDI trend in the region. This requires concerted efforts at the national, regional, and international level. It also requires a new and more effective approach to investment promotion.

Ethiopia's performance in attracting foreign direct investment is very poor compared to many African countries. For instance, Ethiopia accounted for only 1.4% (US$135 million) of the total FDI flows (US$ 9.621 billion) coming to Africa in 2000 and in 2011 Ethiopia accounting, foreign direct investment for only 1.32% (US$626.5 million) from the total foreign direct investment flows (US$ 47.598 billion) coming to Africa (UNCTAD, 2012). This result indicated that the flow of foreign direct investment in Ethiopia also increases from time to time in the amount of capital investment, but still the share of the foreign direct investment flow in Ethiopia is very low compared to other Africa countries. In addition, there is a lack of adequate and recent organize documents about the trends and impact of foreign direct investment on economy in Ethiopia. Hence, the researcher would try to examine the trends and impacts of foreign direct investment on economy in Ethiopia.

Objective of the study

1. To analyze the trends and pattern of foreign direct investment inflow in Ethiopia
2. To resaerch the impact of foreign direct investment on economy in Ethiopia

Research hypothesis

HO_1: $\beta_1=0$ (The Flow of FDI shows a negative trend over the period 2000-2013/14)

HO: $\beta_1=0$ (Foreign direct investment does not have a statistically significant effect on the economy)

6.2. Review related literatures

Mehra (2013) studied the impact of foreign direct investment on employment and gross domestic product in India. The result showed that foreign direct investment inflows have the maximum impact on the gross domestic product of India. The country is estimated experience a growth of 23.6 percent with a 1 percent

increase in the inflows of Foreign Domestic Investment. In addition, the impacts of foreign direct investment on the public, private and total employment are not very satisfactory which is the negligible amount of employment generated in both, the public and the private sector, even though there is a large amount of FDI inflows in the economy. The total employment levels have also increased only by about 4.1 percent, which is not an adequate overall development of the country. This accounts for 'jobless growth' of the country. Even though the economy is growing, there is no improvement in the levels of employment, hence no increase in the per capita income.

Christopher (2012) investigated that impact of foreign direct investment on economic growth in Nigeria. The study employed multiple regression models and time series data (1986-2007). He concluded that there was a positive relationship between FDI and GDP during the period under review. While its contribution to economic growth in Nigeria was not statistically significant, the study indicated that FDI has the potential to significantly impact upon the economy. Lastly, he suggested that the need for maintaining a stable economic growth and low inflation, improved investment in human capital development to build the stock of capital available in the country, the need to overhaul the tax and duty mechanisms to curtail widespread tax evasion, corruption and poor quality services; and the need to increase national savings and investments.

Tesfanesh (2012) conducted the determinants of foreign direct investment inflows to Sub-Saharan Africa: a panel data analysis. Findings showed that the trade openness, gross domestic product, gross fixed capital formation, inflation and lag of FDI are the main determinants of FDI to Sub-Saharan Africa. Hence, a large market size has significant contribution for inflow of FDI in Sub-Saharan Africa. Even if there is an insignificant relationship between telephone line (per 100 people) and FDI, the positive and significant relationship between gross fixed capital formation and FDI indicated that infrastructure has a positive contribution to FDI inflow. Macroeconomic stability is very essential to attract more FDI in Sub-Saharan Africa. In addition, the agglomeration effect has a positive impact on FDI inflow as investors tend to invest in a place where there are companies than investing in a place where no one invested previously.

Wah-Hak (2011) investigated that the impact of international trade and foreign direct investment on economic growth using a panel of 89 countries from 1985 to 2005. He concluded that foreign direct investment has significant effects on economic growth. While the international trade does not significantly influence economic growth, human capital does. The presence of a democratic government also brings positive effects to growth in real GDP per capita.

Asiedu (2001) analyzed the determinants of foreign direct investment to developing countries: is Africa different? He explores whether factors that affect foreign direct investment in developing countries affect countries in sub-Saharan Africa

countries (SSA) differently. The result indicated that higher return on investment and better infrastructure have a positive impact on foreign direct investment to non-sub-Saharan Africa countries, but have no significant impact on foreign direct investment to Sub-Saharan Africa, openness to trade promotes foreign direct investment to Sub-Saharan Africa and non-Sub- Saharan Africa countries on the other hand, the marginal benefits increased openness is less for sub-Saharan Africa countries. Besides, trade liberalization generates more foreign direct investment to non-sub Saharan Africa countries than Sub-Saharan Africa countries.

Borensztein et al (1998) studied that how foreign direct investment affects economic growth. The results indicated that foreign direct investment is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital. Thus, FDI contributes to economic growth only when a sufficient absorptive capability of the advanced technologies is available in the host economy.

6.3. Research methodology and research model

Source of data: the researcher used quantitative and qualitative data from secondary sources. The major data sources are world investment reports published by the United Nations Conference on Trade and Development (UNCTAD), Ethiopian Investment Authority (EIA), National bank of Ethiopia, Minister of finance, international monetary fund (IMF), Africa business journal, books, articles and related sources. It is a time series data and the relevant data have been collected for the period 2000 to 2013/14.

Scope of the study: the study would focus on examine the trends and patterns of foreign direct investment and its impact on economy in Ethiopia. The study was also delimited to the time period, which is covered only from 2000 to 2013/14 because the recent data are more valuable and better to give relevant recommendations.

Research model: The researcher used linear regression models, annual growth rate and compound growth rate. This model analyzes the trend, effect, annual growth rate and compound growth rate of foreign direct investment inflow in Ethiopia.

$$\mathbf{LogGDP} = \beta_0 + \beta_1 \mathbf{FDI} + \beta_2 \mathbf{Traopp} + \beta_3 \mathbf{Infl} + \varepsilon \quad (6.1)$$

Where:

LogGDP – Gross Domestic Product, measured in million US dollars
FDI– Foreign Direct Investment, measured in million US dollars
Traopp – trade openness
Infl – inflation
ε – error

$$\mathbf{AGR = (X2 - X1)/ X1} \quad (6.2)$$

Where:

AGR =Annual growth rate
X1 = first value of variable X
X2 = second value of variable X

$$\mathbf{CAGR\ (t0, tn) = (V(tn)/V(t0))1/tn - t0\ -1} \quad (6.3)$$

Where:

CAGR (t0, tn) = Compound annual growth rate,
V (t0)= start value, V (tn)=finish value,
tn – t0= number of years

6.4. Data Analysis and Presentation

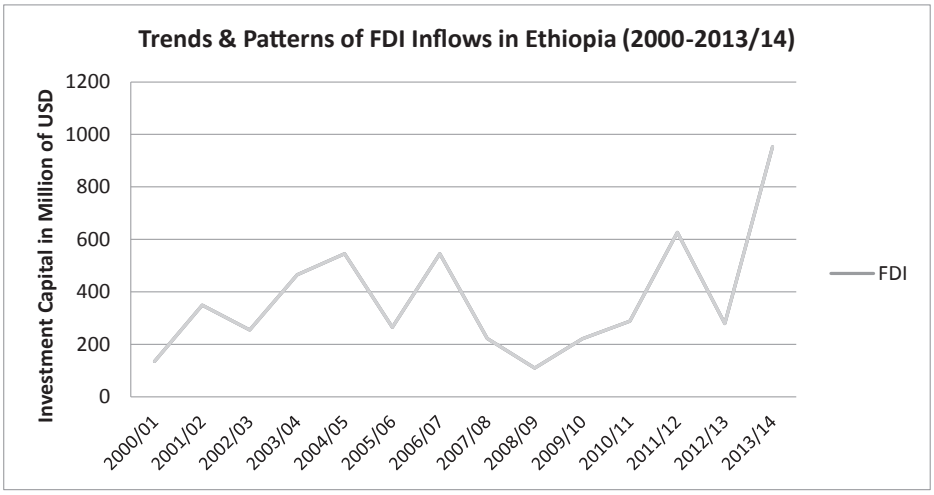

Figure 6.1. *Trends and Patterns of FDI inflow in Ethiopia*
Source: UNCTAD, data base

Figure 6.1. indicated that the inflow of foreign direct investment in Ethiopia was a relative increased from year to year, which is the average value of foreign direct investment inflow in Ethiopia was 375.6 million dollars US, but there is sharp fall noticed

that is 109 million dollars during 2008/09 for the reason that the global economy and financial crises. Yet, the highest amount of foreign direct investment received within the study period in 2013/14, amounting to 953 million dollars US, it implies that the Ethiopia government was highly concerned on foreign direct investment because the government believed that any country does not develop without participate foreign investment. It designed a new plan that is growth and transformation plan (GTP) which is concerned on investment and amend investment incentive proclamation. The maximum annual growth rate was recorded in 2013/14 that is 241.6 % and the minimum annual grow rate registered was (-59%) in 2007, but the compound annual growth rate was 15% per each year. Moreover, this trend proves that Ethiopia is considered as a good investment destination center, which is evidenced from their infusion of investment in Ethiopia economy. There are a number of factors contributing to this contemporary trend with special reference to being its demographics' with a young population there is a huge consumer base that is to be tapped, increase growth rate, increased urbanization and awareness, improve infrastructure, improve political stability, rising disposable incomes and a set of Africa Union and other international organization. Rajput et al (2012) explained that the trend of FDI in India is increasing from year to year (1990-2011) because it has a large population, growing middle class and raising disposable income. This study is similar with Rajput et al (2012).

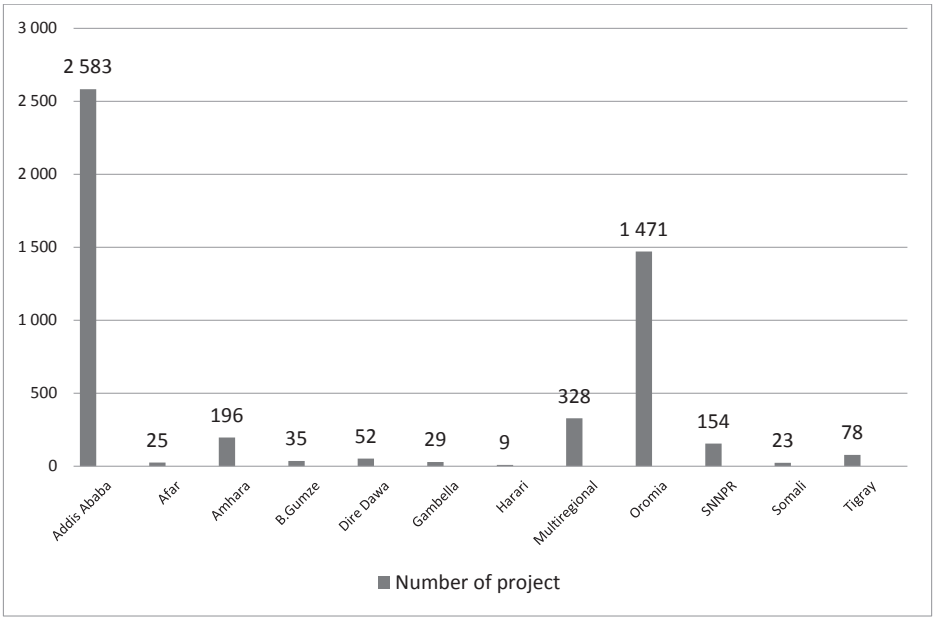

Figure 6.2 *Distribution of FDI Inflow by Region*

Source: Ethiopia Investment Agency

Figure 6.2 showed that of the total 4983 investment projects approved in the review period; Addis Ababa attracted 2583 projects (51.84 percent) from the total inflow of foreign direct investment, this implies that Addis Ababa is the largest foreign direct investment receipts region in the country for the reason that Addis Ababa is the capital city of Ethiopia and Africa union as it has large market available, skilled manpower, better infrastructure etc. Thus, foreign investors preferred Addis Ababa as compared to another region of Ethiopia, Oromia is the second attracted region in Ethiopia that is 1471 projects (29.5%) from the total inward of foreign direct investment in Ethiopia, this implies that Oromia region located around with Addis Ababa, Multiregional attracted 328 projects (6.58%) from the total inflow of FDI in Ethiopia, Amhara attracted 196 projects (3.93%) from the total inflow of foreign direct investment in Ethiopia, SSNPR attracted 154 projects (3.09%), Tigray attracted 78 projects (1.56%), DireDawa attracted 52 projects (1.04%) and Gambella, Afar, Somali, Benishangul-Gumuz and Harari attracted 29,25,23,35 9 projects respectively, this implies that these regions are very poor performance in attracting FDI from another region in Ethiopia. In general, foreign direct investment flows to Ethiopia have been unevenly distributed among the regions. Even though the incentive system encourages foreign investors to invest in the least developed regions (Gambella, Afar, Somali and Benishangul-Gumuz) of the country by providing especial benefits including provision of land free of any charge, their performance in attracting foreign direct investment is very poor. Addis Ababa is the major destination for FDI flows in Ethiopia, as it has better infrastructure, higher market access, stable political environment and better supply of trained manpower. Oromia region has attracted a sizable amount of FDI due to its proximity to Addis Ababa, availability of a natural resource (arable land) and market.

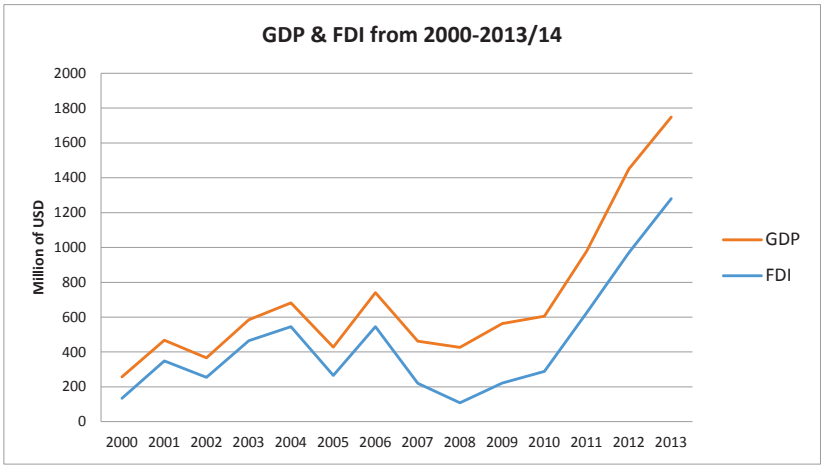

Figure 6.3. *The Contribution of FDI on GDP*

Source: UNCTAD, database

Figure 6.3 depicts the behavior of GDP and FDI in 2000-2013/14. From 2000 to 2013/14, net FDI inflows have seemed to have a positive trend even though it had not been increasing every year and tend to be relatively fluctuating, but it increased from 135 million US$ in 2000 to 953 million US$ in 2013/14, which is an increase by 15 percent. Similarly, the GDP has also a positive trend except 2002 that is it increased from 8030 million dollars US in 2000 to 46017 million dollars in 2013/14, which is an increase by 13 percent. Generally, there is a positive relation between GDP and FDI. In 2000, the contribution of FDI on GDP is 1.7 percent, but in 2013/14 the contribution of FDI also 2.18 percent of GDP. The average contribution of foreign direct investment on gross domestic product is 2.34 percent within the study periods; it implies that it is a very small contribution of FDI on GDP, but the contributions of FDI on GDP also increase from time to time due to government awareness also increase from time to time, cheap labor available, improved human capital, improved infrastructure and political stability.

6.4.1. Correlation

Table 6.1. *Pearson correlation*

```
. pwcorr LogGDP FDI Tropp Infl
```

	LogGDP	FDI	Tropp	Infl
LogGDP	1.0000			
FDI	0.3695	1.0000		
Tropp	0.0868	-0.4730	1.0000	
Infl	0.7986	0.4416	-0.2906	1.0000

Source: own survey

Generally, foreign direct investment, trade openness and inflation have a positive correlation with the gross domestic product that is 36.94 percent, 8.68 percent, and 79.86 percent respectively. The foreign direct investment has a positive and medium correlation with the gross domestic product so the government is reduced the constraints of foreign direct investment when in order to increase gross domestic product.

6.4.2. Regression result

Table 6.2. *Regression Results (2000-2013/14), Dependant Variable: Gross domestic product*

```
. regress LogGDP FDI Tropp Infl
```

Source	SS	df	MS	Number of obs =	14
				F(3, 10) =	11.58
Model	1.89209417	3	.630698058	Prob > F =	0.0014
Residual	.544609865	10	.054460986	R-squared =	0.7765
				Adj R-squared =	0.7094
Total	2.43670404	13	.187438772	Root MSE =	.23337

LogGDP	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
FDI	3.83e-10	3.43e-10	1.11	0.291	-3.83e-10	1.15e-09
Tropp	1.827479	.7343355	2.49	0.032	.191277	3.46368
Infl	.0032514	.0006543	4.97	0.001	.0017934	.0047094
_cons	9.02192	.3234323	27.89	0.000	8.301268	9.742572

*Significant at 5% level

Source: own survey

Table 6.2 indicates that foreign direct investment has a positive effect on the gross domestic product, but this variable is statistically insignificant. The result shows that there is a small contribution or effect of FDI on GDP because there are many factors exist, such as not free open market, undeveloped infrastructure and low human capital. One unit of change in the FDI will increase 3.83e-10 units' changes in the GDP in Ethiopia. Therefore, foreign direct investment has a positive effect on gross domestic product in Ethiopia but statistical, insignificant so the null hypothesis is accepted (i.e. foreign direct investment has not statistically associated with gross domestic product) for the reason that there is no sufficient evidence to reject null hypothesis i.e. statistical insignificance a significant level α is 0. However, trade openness and inflation have a positive and statistically significant effect on gross domestic product in Ethiopia that is statistical significance a significant level α is 0.05. In addition, the value of R-squared (R^2) is 0.7765 which show that the independent variable explains 77.65 percent of the variable of the dependent variable. The overall value of P-value is 0.0014, this implies that the independent variables are statistically significant and predict of dependent variables because the p-value is less than 0.05. This result is agreed with Kumar (2012), Christopher (2012) and Gudaro et al (2012) that foreign direct investment has a positive impact on economic growth.

Conclusion and Recommendation

The inflow of foreign direct investment in Ethiopia is relative increased from year to year, which is the average value of foreign direct investment in Ethiopia was 375.6 million US dollars, but there is sharp fall noticed that is 109 million US dollars during 2008/09 for the reason that of global economy and financial crises. Yet, the highest amount of foreign direct investment received within the study period in 2013/14, amounting to 953 million US dollars. The maximum annual growth rate recorded in 2013/14 that is 241.6% and the minimum annual grows rate registered was (-59%) in 2007, but the compound annual growth rate was 15% per each year. Moreover, this trend proves that Ethiopia is now considered as a good investment destination center, which is evidenced from their infusion of investment in Ethiopia economy.

Since, 2000 the contribution of foreign direct investment on gross domestic product is 1.7 percent, but in 2013/14 the contribution of foreign direct investment also 2.18 percent on gross domestic product. The average contribution of foreign direct investment on gross domestic product is 2.34 percent within the study periods; it implies that it is a very small contribution of FDI on GDP, but the contributions of FDI for GDP also increase from time to time due to government awareness also increase from time to time, cheap labor available, improved infrastructure and improved political stability. Foreign direct investment, trade openness and inflation have a positive correlation with the gross domestic product that is 36.94 percent, 8.68 percent, and 79.86 percent respectively. The foreign direct investment has a positive and medium correlation with the gross domestic product so the government is reduced the constraints of foreign direct investment when in order to increase gross domestic product. Foreign direct investment has a positive and small effect on GDP in Ethiopia, but the null hypothesis is accepted because the statistical insignificance a significant level α is 0.05. In addition, the value of R-squared (R^2) is 0.7765 which show that the independent variable explains 77.65 percent of the variable of the dependent variable. The overall value of P-value is 0.0014, this implies that the independent variables are statically significant and predict of dependent variables because the p-value is less than 0.05. Based on the finding the researcher recommended that Based on the finding the researcher recommended that the government should attract more foreign direct investment by opening more to the external world, improving domestic infrastructure, providing financial incentives, promoting local skill development, devalued its currency, ensure the equitable distribution of the foreign direct investment inflows among the region, improve national saving & investment and undertake more economic reforms to improve their attractiveness towards foreign investors.

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7. Problems and prospects of development of International Joint Business in Russia

7.1. The role of joint ventures in the economy of the Russian Federation

Foreign capital has, as a rule, multidirectional influence on the host economy. One of the forms of foreign investments are direct investments, which can function in the host economy as international joint venture and have positive influence. Joint venture (JV) is an international firm set up by two or several national enterprises for using the full potential of each country to maximize their economic impact (9, p.12).

The successful enhancement projects of the last 50 years have been the result of targeted policies of reforming countries and concentration of domestic efforts and resources. At the same time, no modernization was implemented without external factors. In one countries, they have the supporting role, in others – the key role.

Both geopolitical and economic factors are important. Among the last ones, the most important are foreign investments, import of the technologies (IT), mobilizing foreign expertise (FE), export as a source of income for modernization and benefits of updated economy (E), international credits (IC). The table 7.1 below shows the influence of these factors.

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Table 7.1. *The role of external factors in successful enhancement projects.*

Country	The start of enhancement projects	Achievement of stable development	External factors				
			FI	IT	FE	E	IC
Japan	The early 1960s	1980s	+	+	–	+	+
The USA	The early 1960s	1980s	+	–	+	+	+
Chile	The late 1960s	The mid 1980s	+	+	–	+	+
Taiwan	The early 1970s	The late 1990s	+	+	–	+	+
Malaysia	1980s	The early 2000s	+	+	–	+	+
Israel	1980s	The early 2000s	+	–	+	+	+
China	1980s	The early 2000s	+	+	–	+	+
South Korea	1980s	The early 2000s	+	+	–	+	+
Singapore	1980s	The early 1990s	+	+	–	+	+
Finland	1990s	2000s	+	–	–	+	+

«+» means the key role of the factor, «-» means the insignificant role, but not the complete absence of the factor.

Source: Worked out by the authors based on: Foreign investments in the Russian economy – modern stage and prospects, p.18, URL: https://promdevelop.ru/inostrannye-investitsii-v-ekonomike-rossii/ (access date: 02.08.2018).

Almost in all the enhancement projects joint ventures have had the huge role, engaged new technologies and new specialists, contributed to the development of innovation sectors and industries. All the modernized countries were invested from the world capital market, these were international financial organizations credits and regional development banks credits as well as global banks credits and bond financing.

The world largest economy, the USA, for example, had concentrated more than a quarter of all the world foreign direct investment (FDI) in the form of joint ventures by 1990. In some developing countries (Taiwan, Malaysia, Singapore, China) the new economy started from creating exceptionally favorable conditions for international joint ventures work.

The essence and the role of joint ventures from the position of its influence on economic processes in the country can be considered on the following levels (9, p.98).

On the macro level, joint ventures are the base for the implementing policies of expanded reproduction, scientific and technological progress acceleration, improvement of quality and competitiveness of production, balanced development of national economy branches, establishment of raw-material base for industry, development of health care, culture, high and middle school and other social problems.

Joint ventures have no less important role on the micro level. They are necessary for extension and development of manufacture, prevention of excessive moral and physical wear of the main funds, increase of the technical level of manufacture,

increase of quality and competitiveness of joint ventures production, implementing environmental campaigns, purchase securities and investment in economic entity.

Table 7.2. *Investment in fixed capital by the forms of ownership (the Russian Federation)*

Investment in fixed capital:	2000	2005	2010	2015	2016	2017
	Billions of rubles					
Total	1165,2	3611,1	9152,1	13897,2	14748,9	15966,8
Russian, including forms of ownership:	1005,4	2909,0	7886,6	11720,5	12251,7	13545,9
Foreign	17,7	298,4	537,8	1147,1	1098,6	1041,2
Joint Russian and foreign	142,1	403,7	696,4	1029,6	1398,6	1379,7

Source: Worked out by the authors based on: Russia, the safe harbor of the capital. URL: https://credinform.ru/ru-RU/herald/details/8e1d5896e8fb (access date: 10.08.2018). [11]

Enterprises with foreign capital, indisputably, have positive influence on the economy of the country in general. This happens by (9, p. 105):

1) implementing of cutting-edge foreign technologies;
2) increase of the production export, increase of the competitiveness of product on the domestic and foreign market; arrival on the foreign market through:
   - marketing researches of specific needs of world markets, holding of the complex of marketing events;
   - organization of product manufacture in accordance with typical for the world market quality parameters or with norms accepted in countries where it is planned to trade;
   - search of the ways of the arrival on the markets of the countries which have strict trade protectionism and restrictions for foreign investment without participation of local enterprises and firms.
3) engagement of additional financial and material resources, possibility to use available for one of the enterprises with foreign capital resources at prices significantly lower than the average prices of the world market;
4) reducing costs for production on the base of usage of transfer (within firms) pricing, cost savings in marketing;
5) improvement of logistic support through getting from the foreign partner scarce material resources, semi-finished products, set bonds and details produced.

International joint ventures influence the production aspect of economy through (6, p.13):

- innovation introduction with market tools, for example, scientific researches, groundworks, production, marketing, provision of before and after sales services;
- increase of innovation effectiveness and competition through involvement of traditional branches, for example, aircraft, machine-tool construction, automo-

tive industry, i.e. speaking globally everything that accelerates scientific and technological progress;

- reduce of investments and scientific and technological costs in comparison with new construction, reduce of time of constant update of production and technologies of manufacturers of intermediate products, cost savings, showing the effect of economy for the firm and industry in general reflecting on the state of national economy;
- enforcement of international joint ventures by giving huge choice of diverse forms – contractual and institutional (joint-stock companies, trusts and etc.);
- smoothing possible negative consequences of foreign investment in the domestic economy, directing increase of competitiveness of cooperated production in the world market.

Companies with foreign investment, regardless of their country, expect to gain certain benefits and advantages. The main factor is that joint venture enables partners to achieve the goals above their potential.

Being quite a flexible organizational form of management using the experience, financial and other resources of companies of different countries, international joint ventures become a sort of growth point for forms of governance. Using the resources of different countries enables to minimize the costs and maximize the benefits contributing to the increase of the impact of the invested capital of partners.

Thus, joint ventures have become the means of engaging of updated foreign technologies and contemporary management experience. Through them capital export is easier, and in its production form, investment projects, not available for one company, are realized. Moreover, new regions markets are easier to develop with local partners, especially since joint ventures have tax deductions.

Joint ventures lead to some social changes. Namely, because of new workplaces unemployment decreases, which makes positive changes in economy (Table 7.3).

Table 7.3. *Average number of workers in organizations with foreign capital (the Russian Federation)*

	Average number of workers (without external workers), thousands of people					
	2011*	2012*	2013	2014**	2015**	2016**
Total	3215	3112	3468	3307	3250	2769

*without micro enterprises

**not counting the Crimea region

Source: Worked out by the authors based on: Russia, the safe harbor of the capital, p.12, URL: https://credinform.ru/ru-RU/herald/details/8e1d5896e8fb, p.12 (access date: 10.08.2018).

The following factor is favorable: joint venture supposes technologies exchange between the host-country and the donor-country. Consequently, this increases workers qualification level through additional trainings.

Therefore, joint ventures can be quite an efficient school with new techniques and technologies for labor force. They will apply new more appropriate and progressive forms of work organization. Improvement of approaches to labor force and other issues of economic and social part of joint ventures explains respective development of organizational forms of joint ventures.

Joint ventures impact on the country economy depends on what kind of countries are the partners (developed market economy and transition economies).

Production cooperation with firms from developed countries enables companies from developing countries to enlarge capacities, to get technologies, experience and knowledge in management, marketing, etc.

Creating of a number of joint ventures in the sphere of information, labor force training, consulting services facilitates the functioning conditions for foreign and domestic capital.

In general, joint ventures are profitable for developing countries and transition economies because they enable to (9, p.117):

- Engage additional investment to their production, reducing the lack of inner finance;
- Obtain new technologies with updated equipment;
- Get unique knowledge in management;
- Integrate the western technology to the production process with restricted import capacities of the countries;
- Increase the production competitiveness and economy effectiveness in general;
- Get an important source of income in hard currency through the production export to west markets or service provision.

Moreover, joint ventures show transition economies ways of production modernization. Accordingly, joint venture partners with developed market economy have other benefits from the business.

First of all, joint ventures allow them to get new markets. Very important is the possibility of long-term usage of national and regional markets potential, some market characteristics and sales structure. Not less important is short-term usage of market potential (for example, selling of scarce consumer products).

Also through the production relocation to the partner country using production advantages with lower staff costs, expands can be reduced. Therefore, developing markets can use old-fashioned west technologies longer. Developing countries have more favorable legal conditions for some production forms, and it can have an important role for joint venture establishing.

Entrepreneurs from developed countries ensure the competitiveness of joint venture product in the world market though comparatively low cost production

factors. Certainly, they have their interest in technological and scientific potential of some developing countries, which can stimulate innovation sphere investment (9,p.121).

Joint venture with developing countries ensures developed countries with new resources (new source of raw materials and new production base).

Foreign presence can also have *negative influence* on production process in the recipient country.

During economic reforms in the country, residents and non-residents have worked out complicated scheme of concealment of profits and tax avoiding (and often the part of salary fund in order not to contribute to extra budgetary fund). Moreover, large foreign investors use their marketing dominance, ways of tax evasion, methods of restricting business practices; also available benefits, carry out most of export, and import transactions avoiding standard custom duties.

In today's Russia bank and other credit organizations credits are more available for non-residents rather than for residents. This happens not only because of low exchange rate for the ruble against the dollar, but also because interest rate in the dollar is lower than in the ruble. The foreign loan takers' higher rating of capacity to pay explains this, apparently.

There is always the threat of staff reduction in foreign joint ventures because there is the danger of repatriation of imported capital and stopping the production due to worsening the investment climate, the imposition of economic sanctions, economic/finance crisis or any other obstacles. Foreign companies also have the massive layoff danger when they do not build new objects in the recipient country but buy already existing local companies. This danger is especially big in Russia because Russia imports capital mainly through the sale of shares of its enterprises. Purchasing the enterprise or major shareholding, the foreign investor makes reorganizations increasing production concentration and organic compounds of the capital, thereby leading to the workforce reduction.

Foreigners frequently purchase Russian enterprises with the intention of eliminating competitors. The ways are diverse: from purchasing the debts of the domestic company and its following bankruptcy to buying the shares for reassignment or closure through bankruptcy. The cases when the joint venture foreign partner rents production space where the Russian company manufactures quite competitive products are quite often (Kudryashova, Peshakova, 2011,p.23).

Many developed and developing countries have restrictions on foreign capitals in industries connected with national natural resources, some infrastructures, tele- and satellite communications.

So, all the negative consequences of foreign investors for the recipient country can be structured the following way (6, p.5):

- capital repatriation and profit remittances (dividend, interest, royalty, etc.) that worsen the state of the balance of payments for the recipient country;

- increase of the import of equipment, materials and component details, demanding additional currency exchanges;
- local businessmen suppression and restriction of competition;
- strengthening of the national economy dependence, threatening its economic and political safety;
- neglecting of local conditions and peculiarities by foreign investors;
- strengthening of social tension and differentiation (particularly, because of the higher payment in foreign companies);
- weakening the incentives of national R&D work because of the import of foreign technologies, which can lead to technological dependence;
- worsening the environment because of the import of "dirty" production and damaging exploitation of the local resources;
- negative influence on social and cultural conditions, connected with ignorance of national traditions, peculiarities, etc., imposing foreign standards, values and forms of organization of production, consume, way of life, etc.

Certainly, all the above-mentioned positive and negative factors of foreign investment for the domestic economy are not realized automatically, but exist potentially. That is why recipient countries and their economic subjects intending to engage foreign capitals should carefully assess all pros and cons of these projects and implement wise policy of regulating foreign investment allowing using all positive effects in full and evading or minimizing negative ones.

7.2. The main trends and problems of development of international joint ventures

Among urgent problems of contemporary economy, the main is the engagement and efficient use of investments. The problem solution depends on the investment potential of the regions and its economic subjects. Exactly investment potential and its dynamism and efficient use pave the way to stable economic growth of industries, regions and national economy in general.

The dynamic of the investment processes in the country in general and in regions is restricted by high investments risks in the Russian economy, high corruption level, non-developed infrastructure, physical safety problems and visa problems.

The modern Russia has great potential for investments. According to the CBR the total volume of direct foreign investments in Russia made 565,8 billion dollars since 1994 to 2017. The peak volume of investments in the domestic economy was during favorable world conjuncture in the raw material market, so called period of "good" years 2006-2013, then the decline took place, connected with economic sanctions and falling oil prices, first of all (5).

In the second half of 2014, the Bank of Russia informed about direct foreign investment outflows. This happened for the first time after serious economic decline in 2009. In 2014, foreign investments made only 22 billion USD, which had been the record low level since 2006. In 2015 direct foreign investments deceased to 6,853 billion USD (Table 7.4) (5, p.1.). It is worth mentioning that in 2014 Russia for the first time in the last decade was not in the rating of 25 most investment attractive countries in the world (4, p.7). The dynamics of foreign investments reflects ris1k increase for the investors on the territory of the Russian Federation.

Table 7.4. *The dynamics of foreign direct investment (FDI) in the Russian economy, billion USD*

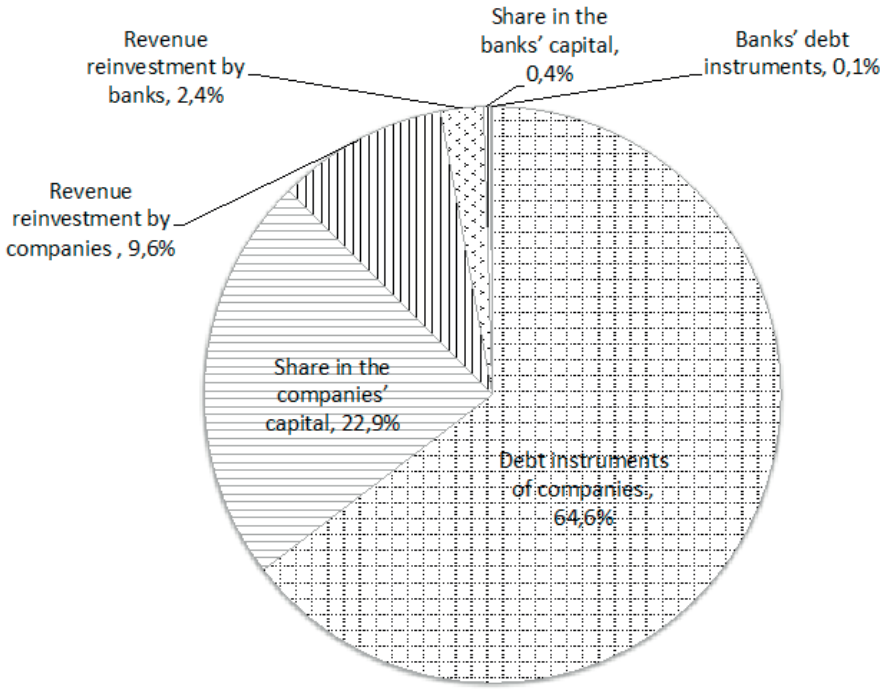
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Banks	9 887	6 678	5 164	5 081	7 786	9 158	4 394	589	1 608
Other sectors	64 896	29 906	38 004	50 003	42 801	60 061	17 637	6 264	31 369
TOTAL	74 783	36 583	43 168	55 084	50 588	69 219	22 031	6 853	32 976

Source: Worked out by the authors based on: *Иностранные инвестиции в экономике России — современный этап и перспективы*, p.2. URL: https://promdevelop.ru/inostrannye-investitsii-v-ekonomike-rossii/ (access date:02.08.2018).

There is some recover of lost positions in 2016, the volume of direct foreign investments made almost 33 billion USD, but in 2017 direct foreign investments made 27,9 billion USD, which was 14,3% less than the previous year. These indicators show difficult political and economic relations with the West, and suppose worsening of business environment in the country.

Foreign direct investment mean residents "investments in the foreign companies" capitals, engagement of debt instruments abroad (crediting) and reinvestment, that is capital investments in the business objects in the Russian territory from revenues of foreign investors or commercial organizations (Pleshakova, 2015, p.5) The structure of accumulated direct foreign investments in 2010-2016 is shown in figure 7.1. The most frequently used mechanisms of investments' engagement are debt instruments (64,6% from the total direct foreign investment).

Figure 7.1. *The structure of accumulated foreign direct investment in Russia in 2010-2016, % of total volume*



Source: Worked out by the authors based on: Ratc G.I. (2011) Joint ventures, Moscow. **[10]**

Federal State Statistics Service. In the structure of foreign direct investment in Russia, the main volume is financial activity, although these investments decreased during last years. Distributive trade is still well invested. Foreign investors invest in extraction of fuel and energy and mineral raw materials. Investment increase in 2016 is based on the sell of 19,5% of "Rosneft" shares to the international consortium (Switzerland, Qatar).

The contemporary economy cannot develop without investments. One the most important strategic tasks of the Russian government is engagement of foreign investors. In order to solve the task, it is necessary to create conditions for good investment climate, develop free economic zones, improve the infrastructure in the country regions, build roads, international airports, sea ports, develop telecommunications; use wider the system of bilateral cooperation setting up joint ventures for efficient economic activity.

Let us analyze the dynamics, industrial and geographical distribution of foreign joint ventures in the Russian economy.

The Russian regions are much differentiated on the economic level; the investment field is not homogeneous. According to Rosstat, the number of foreign joint ventures decreased by 10,7% in 2013-2016. In this, their part in the total number of enterprises registered in the Russian Federation stayed on the same level and made 0,49% in 2013, and 0,44% in 2016, which is reflected in table 7.5.

Table 7.5. *The joint ventures part in the total number of enterprises in the Russian Federation in 2013-2016*

Number of enterprises	2013	2014	2015	2016
Total number of enterprises, thousands of units	4879,3	4886,0	5043,5	4764,4
The number of enterprises with foreign capitals, units	24025	23520	17565	21417
The part of enterprises with foreign capital in the total number of enterprises and organizations, %	0,49	0,48	0,34	0,44

Source: Worked out by the authors based on: Russia, the safe harbor of the capital, p.7 .URL: https://credinform.ru/ru-RU/herald/details/8e1d5896e8fb (access date: 10.08.2018).

Despite the relative small number, joint ventures implement a significant part of investments in the main capital, about 9,48% in 2016, promoting the development of some economic sectors of the Russian Federation. According to the UNCTAD the average indicator in the world was 11,4% in 2016. In the group of countries with transitive market economy, this indicator was higher than the Russian one was. In developed countries the role of joint ventures investments in the main capital is insignificant, and in some countries this part is significantly lower than the Russian one: the USA (7,4%), Germany (about 6,4%), France (6,2%) (UNCTAD, 2017, p.21).

International joint ventures were distributed unevenly by the types of economic activities in 2013-2016. The main indicators of the joint ventures activities, which changed insignificantly, in Russia prove this. The vast majority of the joint ventures during the analyzed period were working with manufacturing; wholesale and retail trade, repair of vehicles and household articles; mineral extraction, operations with real estate, rent and services provision.

Manufacturing (43,8%) is the most engaged with international joint ventures (67% in 2016), also wholesale and retail trade, repair of vehicles and household articles (14,8%), transport and communications (9,4%).

The large part of turnover of joint ventures (more than 78,4% in 2016) was implemented in the main economic industries: wholesale and retail trade, repair of vehicles and household articles (35,4%); manufacturing (32,6%), electricity, gas and water production and distribution (10,4%) (11, p. 6.)

The least attractive for foreign investments remain education and healthcare spheres, public and social services.

The country ownership is an indirect characteristic of joint venture. In contemporary conditions, in the international movement of direct investments, the main part belongs to the offshore zone countries, which are Singapore, the Bahamas, the British Virgin Islands, Switzerland, France, etc.

More than the half of all the accumulated foreign investments in the Russian economy belonged to the named countries in 2016 (Figure 7.2.). And three countries Singapore (50,6% of all the foreign investments), the Bahamas (18%) and France (6,2%) are leading.

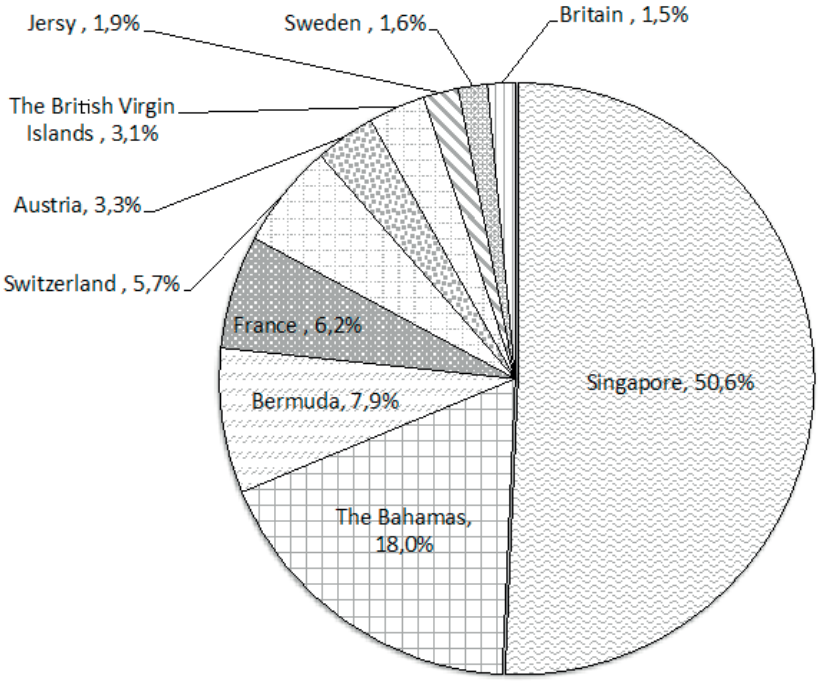


Figure 7.2. *The main investor-countries in the Russian economy*

Source: Worked out by the authors based on: Danilchuk V., Matnenko N. Investments in Russia: who or where, p.8) URL:https://nauchforum.ru/studconf/social/3/33754 (access date: 02.08.2018).

Unfortunately, imported foreign capital does not promote modernization and technical update of the Russian economy (even though it is said to have the Russian generation).

The main feature of distribution of the companies with foreign capital in the Russian Federation territory is their high concentration in the small group of regions. The geographical structure of international joint ventures in Russia is connected with industries, because the attractiveness of a territory depends on the

attractiveness of some of their industries. Foreign capital is invested in regions with developed infrastructure, comparatively high capacity to pay and high density of export-oriented enterprises TEC (Shakhovskaya at al. 2012, p.7).

The main part of international joint ventures (65% of all the enterprises with foreign investors) was concentrated in the Central and North-West Federal regions in 2013-2016. So, more than 63% of commercial organizations with foreign capital was from the Central federal region (more than 30% of international joint ventures in the Russian Federation), mainly in Moscow. More than 42% of joint ventures was from the North-West federal region (7,4% of international joint ventures in the Russian Federation), working in S.-Petersburg. Moscow region, Moscow and S.-Petersburg had almost 43% of these enterprises in 2016 (4, p.8).

In regions, leading in the number of foreign joint ventures, the main turnover of the enterprises is concentrated. So, 66,5% of turnover of the commercial organizations with foreign capital was implemented in the Central and North-West regions. And only in Moscow region, Moscow and S.-Petersburg the turnover of the commercial organizations with foreign capital made 57% of the total turnover of such enterprises in the Russian Federation economy in 2016 (4, p.6).

Therefore, unequal distribution of enterprises with foreign investments in the Russian Federation not only prevents from the maximal usage of the benefits of this form of cooperation, but also strengthens existing regional disproportion in the country economy.

7.3. Prospects of joint ventures growth in the current circumstances

One of the main steps for activating the processes of establishing and functioning of international joint ventures in Russia and improving their industrial and geographical structure is improvement of the investment climate in the country, which supposes serious tax, investment and corporate law changes.

According to "Doing Business 2017" survey of the World Bank, Russia takes 40th place. 5 years ago, it was 124th position, in 2016 it was 51st position (UNCTAD, 2017, p.8). This depends on the changes made in the Russian Federation in 2013-2016, that is the reduction of administrative barriers, simplification of business registration and property registration processes. The most successful changes were protection of rights of minority investors, tax policy and international trade.

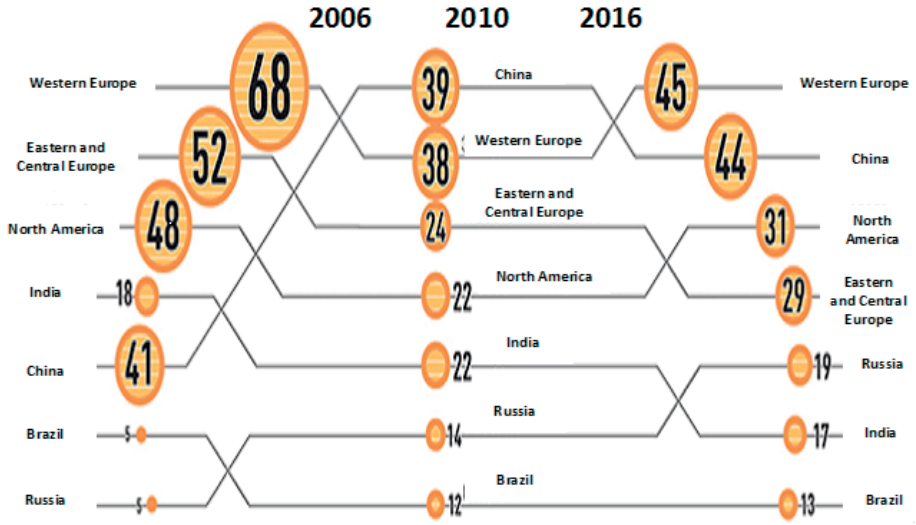


Figure 7.3. *The most attractive world regions for investments*

Source: Worked out by the authors based on: Kudryashova I.V., Peshakova M.V. (2011) The main trends of international joint ventures in Russia, Volgograd State University Bulletin. Seria 3: Economy. Ecology. 2011. №2

Improvement of the investment climate is the main task of the Russian economy, according to the Russian and foreign experts and Russian government managers. (Table 7.6)

Table 7.6. *Measures of the investment climate improvement in the Russian Federation*

The World Bank experts recommendations	Government of the Russian Federation proposals
Do not to impose fine or regressive regime of taxation	Establish the representative of entrepreneurs rights as well as foreign investors'
Activate certain legal base	Accelerate trial procedures and give more time for decisions appeal for entrepreneurs
Implement additional norms and rules under administrative control of independent and impartial regulator	Exclude from the Criminal Code all the clues leading business cases to criminal files on one of the participants
Create such a business environment providing guaranteed and non-discrimination access to the markets	Move from different state permissions to entrepreneurs responsibility insurance
Do not interfere with market mechanisms work	Enhance the rights of businessmen public associations and give them the right to pursue legal action

The World Bank experts recommendations	Government of the Russian Federation proposals
Do not discriminate investors	Coordinate corporate law with the laws of the main foreign trade partners of Russia
Introduce standards of international community	-
Abide the contract obligations and do not use administrative bureaucratic tricks for investors activities' restriction	-
Prevent misuse of monopoly	-
Eliminate any corruption display	-

Source: Worked out by the authors based on: https://promdevelop.ru/inostrannye-investitsii-v-ekonomike-rossii/ (access date: 02.08.2018).

The essential condition for realization of these tasks are large-scale investments in production, new technologies and education. Let us scrutiny the main steps of the Russian Government to improve the investment climate in the country and establish international joint ventures.

The Russian Fund of direct investments (RFDI) was established in 2011 in order to update and modernize the Russian economy and engage long-term finance and strategic foreign investors. The main task of the RFDI was provision of maximal efficiency for the capital invested by the Fund and its co-investors. The Fund takes part in the projects with 50-500 million USD with not more than 50% participation. The fund capitalization in 2012-2016 made 8 billion USD (Federal State Statistics Service, 2014).

In 2010, *the federal investment representative institute* was established for promotion of foreign investors' projects. During the analyzed period, the institute has recommended itself as an efficient body for solving administrative issues. So in 2016 71 from 93 appeals were solved, while 64 from 93 were on the regional level.

In 2011 *Insurance agency of export credits and investments* was established for supporting the Russian export and first of all for domestic high technological production (equipment and vehicles, machines, building and engineering service). The insurance capacity of the Agency is 10 billion USD. The Agency can cover up to 95% of expenses of each insured deals in case of political risks realization and up to 90% in case of commercial risks realization. According to the Ministry of the economic development of the Russian Federation, the Agency's activity will allow to insure 30-35% of all the Russian export of machines, equipment, vehicles and building and engineering services (Figure.7.4.) (13).

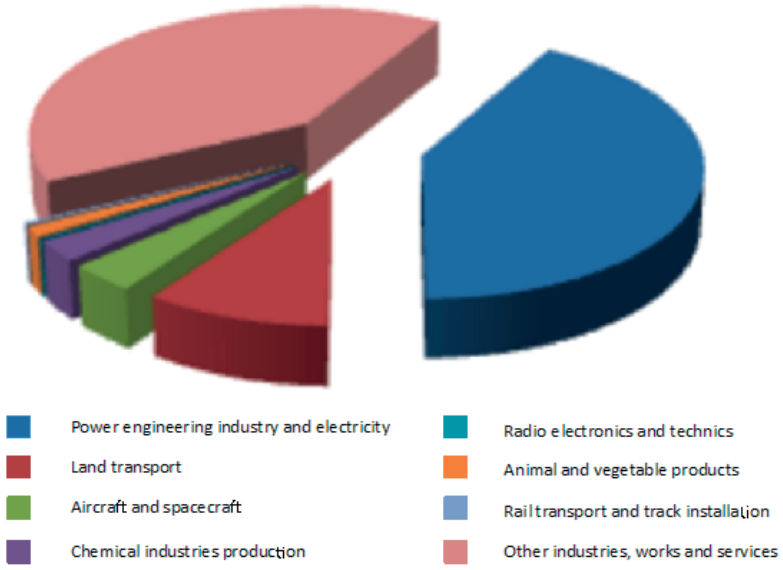


Figure 7.4. *The insurance rate of the Agency in the Russian economic industries*

Source: Worked out by the authors based on: http://www.putin-itogi.ru/doklad/, (access date: 25.07.2018).

In the beginning of market reorganization (1994), *the Consultant committee of foreign investments* was established for engagement of foreign investments in the Russian economy and improving the investment climate in the country. During 24 years of the Committee's work, 78 foreign companies and banks took part in it, and nine constant workgroups were established in the key sectors, determined annually.

Therefore, the Russian Government has taken quite a lot of measures to improve the investment climate of the country and develop joint ventures. However, the Russian national strategy in the investment process is not formed completely and is even controversial. Nevertheless, it can surely be said that the investment climate improvement is one of the main tasks of the Government. Moreover, having studied the successful experience of other countries, we can notice that many successful ideas and measures are taken into account in the country policy and even in legal acts and planned measures.

7.4. Foreign investments in Krasnodar region

Krasnodar region is one of the most investment attractive and active regions of the Russian Federation. The consequent work in establishing of favorable business conditions and investment climate improvement helped the region to develop

much more dynamically than average Russian subjects. Since 2014, Krasnodar region has taken part in the National rating of investment climate state of the Russian Federation subjects and has had the 7th position for the last 3 years. Moreover, in the end of 2017, the leading national rating agency "Expert –RA" announced Krasnodar region the leading Russian subject with the lowest investment risks, i.e. with the best work conditions for foreign investors. The region has been in this group since 2011. The prioritized industries for foreign investments in the Krasnodar region economy are heavy and light industries, agro industrial complex, winemaking, resorts and tourism, transport system, real estate development, fuel-power complex, information technologies.

Overall, the most interesting for foreign investors are transport, manufacturing activities and agricultural sector. These spheres' enterprises raised 85 billion rubles totally. It is very impressive. At the same time, we have observed the increasing interest of foreign investors in metallurgy, petro-chemistry and food industry. For 7 years – 2010-2017 – 8,6 billion USD of direct foreign investments got into the Kuban economy. In 2017, they made 1,7 billion USD. The Krasnodar region cooperation with foreign investors is long-term and mutually profitable. The strategic partners of the region have been and still are many famous companies from all the world continents. Today more than 300 companies with foreign capital from 30 countries work in the region. Many of them have had business here for more than 20 years.

The main goal of the region is not only to invite foreign capital but also to localize maximally the manufacturing processes. Herein, foreign companies decrease the prime cost of their production and make it more competitive by the quality and price. The region's profit is in new work places for the region residents and tax revenue. Moreover, it involves the development of related industries. A good example is the development of Klaas, Nestle and Schumacher companies. In the near future KFC and Petkus enterprises will start working. Krasnodar region is popular among foreign investors; they are interested in making business in the most favorable region of the Russian Federation in terms of climate, sea ports, logistics and professionals. An example is the German company Klaas in Krasnodar. Last year the Krasnodar region administration concluded the first special investment contract in Russia, providing complex of supportive measures and tax remissions with this foreign company. Any foreign investor, thinking of making business in Kuban, knows their preferences and remissions, knows what to count on. This information is open and identical for foreign investors as well as for the Russian ones. The preferences list is on the site of the Department of investments of the region. The main preferences are lowering of the rates of tax on income and property of the organizations for 10 years.

A great deal of investment projects of foreign investors is realized in agricultural sector. To be more exact, it is 140 projects costing more than 110 billion USD. By the

way, viticulture has been invested a lot during the last few years. Production sector is another sphere of investments. 24 billion USD, that is 20% of all the investments in the region, have been invested in the production sector development. In other words, every 5th ruble in the region is invested in the development of the modern production industry. Also, modernization projects of Afipskiy and Ilskiy refining companies are continued; the long-term project of the development of one of the largest manufacturer and exporter of mineral fertilizers "Eurochim-DMU" is actively implemented.

Moreover, the fourth-priority construction of Abinskiy electro-metallurgical factory is almost finished. This leads to successful consumer demands and as a result new large projects appear in the sector. This year the first special multifunctional center for foreign entrepreneurs has been opened in Krasnodar. Welcome Center is a completely new format of work. Foreign partners can get services essenial for opening business in Kuban, such as legal counselling, financial accounting, staff recruitment, assess in presentations realization, advice in governmental support and projects financing services. In addition, the investment portal of Krasnodar region is established and works successfully. It has more than 500 investment proposals that are regularly updated. Also, there is an investor's guide, helping the potential investors to orient in the region economy and find the most perspective projects for investments and business development. Economic sanctions influence the development of investment potential a lot, especially in agricultural sector of Kuban and Russia, but on the other hand, this is a stimulus for the improvement of quality and quantity of production for complete import phase-out in the country; foreign investments are not decreasing, they are long-term and stable

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8. Foreign direct investment (FDI) in Brazil to give birth 90s. An analysis of the handling characteristics and contribution to the economic context

Introduction

From the 90s, begins in Brazil, the process internationalization of the economy, through trade and financial liberalization and removal of measures restricting the activities of foreign capital[21] (Hiratuka, 2003). The purpose was to create a more favorable economic environment at the entrance of FDI (Gonçalves, 2005; Laplane, 2001). The idea was that this flow would act as a way of modernizing agent and as "engine" of growth for the country as it would promote significant expansion efficiency in various sectors and positively influence exports. It is also expected also that FDI would enable a long-term source of funding to balance the balance of payments and the financing of the current account deficit, given their impact on the trade balance (Laplane, 2001; Fritsch and Franco, 1989). In this reasoning, the trade deficit would be only temporary. The local business efficiency gains and improved competitiveness of TNCs improve the insertion profile of exports over time. Consequently, this would enable the increased ability to compete with imports (Sarti & Laplane, 2003: Laplane, 1999). However, FDI limited its contribution to this growth, since not desarticulava the external constraint on the trade balance. First because of high import of equipment, raw materials and components did not contribute effectively to solve the current account deficit. Second, because the majority volume of this investment directed to privatization in the early '90s and in the following years, the service sector. Thus, the FDI does not significantly alter the export basket (Laplane & Sarti, 1999, 1997) because does not disarticulate the external constraint on the trade balance. First because of high import of equipment, raw materials and components did not contribute effectively

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20 Prof.Francisco Diniz CETRAD/UTAD.

21 Remuções numerous measures to import tariffs. Moreira (1999).

to solve the current account deficit. Second, because the majority volume of this investment directed to privatization in the early '90s and in the following years, the service sector.

This chapter aims to advance in the analysis the drive characteristics of FDI and its contribution to the Brazilian economy, after the process of internationalization of this. Give yourself through a quantitative methodological approach. The contribution here is on the possibility of expanding on the issue of FDI in the Brazilian economy. For future research, we suggest a detailed analysis of the FDI integration in industrial sectors through the productive overflow and its contribution to economic growth during the given period. Thus, the structure is made as follows: in the first section seeks to review the history of FDI Brazilian economy. In the second deepens the analysis of the FDI drive results and, finally, presents the final conclusion.

8.1. The trajectory f FDI after years 90.

From the 90's, Brazil becomes a major receptors FDI between capitalist countries. In Table 8.1, the FDI for Brazil is higher than in France and, dince2008 exceeds that of Germany, the main recipient of Europe. In addition, best results are achieved with the other countries, except China. FDI flows to Brazil remained high growth rates, 51% from 1997 to 1998. However, significantly fall 31.5% in 2001. The significant increase from 2007 reflects also in 2008 is due to the high Brazilian GDP 6.5% (2007), increased since 1986 (Table 8.1).

Table 8.1. *FDI flows in selected countries (US $ million), and GDP Brazil* [22]

	1995	1997	2000	2003	2005	2007	2008	2009	2010	2011	2013	2015
Germany	12.024	12.245	19.279	32.377	47.450	80.212	8.127	23.886	65.643	67.514	15.573	33.312
Argentina	3.458	9.161	10.418	1.652	5.265	6.473	9.726	4.017	11.333	10.720	9.822	11.759
China	37.521	45.257	40.715	53.505	72.406	83.521	108.312	95.000	114.734	123.985	123.911	135.610
France	23.562	23.383	27.497	7.855	33.234	63.500	37.593	30.733	13.890	31.642	34.270	46.991
Russia	2.066	4.865	2.651	7.755	14.375	54.922	75.856	27.752	31.668	36.868	53.397	11.858
FDI Brazil	2.000	18.993	32.779	10.142	15.056	34.600	45.058	25.949	83.749	96.152	53.060	64.267
GDP Brazil %	4.2	3.3	4.4	1.1	3.2	6.1	5.1	-0.1	7.5	4	3	-3.8

Source: Worked out by the authors based on: UNCTADSTAT and IBGE. Report historical series (1995-2015)

Although the Brazilian economy has lived in the period, with large fluctuations in the rate of GDP [23], The negative trade balance surpluses have given up

22 GDP Brazil of the years that are not in the table, are: 1996 =2.2%; 1998 = 0.3%; 1999 = 0.5%; 2001 = 1.4%; 2002 = 3.2%; 2004 = 5.8%; 2006 = 4%; 2012 = 1.9%; 2014 = 0.5%.

23 Date: Central Bank Brazil (BCB).

(1995-2000), current account (1995-2002) and in period of (2008-2014) to which FDI financed proportion of the surplus in the balance of payments[24].

8.1.1. Sectors

A point to note in the allocation of FDI to Brazil refers to where and how they gave up this allocation in the productive sector. Thus, there is FDI in gross fixed capital formation (FDI / GFCF) in the productive sectors, in privatization, exports, imports and balance of payments.

As core the proportion of FDI in gross fixed capital formation (GFCF)[25] there is considerable growth 1995 to 1999 would be linked to the privatization process occurred.[26] FDI is related to mergers and acquisitions and were directed to industrial sectors. The ratio FDI/GFCF followed an upward trend in Brazil, which shows a greater degree of participation in the international economy. At first glance, it can be considered that this fact contributed to the growth of investment. However, FDI/GFCF does not follow the growth of investment in a proportional positive relationship. There is a significant increase in 1995-1999 and considerable drop in 2005, 2006 and 2009 (the period in which the investment grows or remains constant). It can be inferred that FDI contributed little to the increase in the investment rate of the economy.[27] Participated more in the stock of productive capacity already exists than to expand or implement new productive capacity.[28]

The productive sector, 60% of FDI directed to the service sector and agriculture. Except in the second half of the 1990s, the insertion of the FDI never reached

24 BCB date. There are exogenous factors that comes from changes arising from the consequences of the 2008 crisis.

25 The ratio FDI / GFCF has only to allow a temporal assessment of the growing importance of FDI flows, as well as the FDI / GDP indicator. The indicator does not allow to analyze the property of foreign capital contribution to gross fixed capital formation. This is because not all FDI flows is fixed investment, ie gross fixed capital formation, given that a significant portion has been earmarked for acquisitions and mergers. In addition, an important share of contribution of foreign companies to the gross fixed capital formation is not captured by the FDI flows measured from the balance of payments capital account.

26 Investments for the purchase of privatized companies in 1996 reached $ 2.3 million, representing 22% of the input volume of these flows. This volume nearly doubled in 1997, when exceeded $ 5.2 million. It reached 27.6% of incoming FDI in the country and 30.7% in 1999. From 1996 to 1997 there was an increase of 76% ticket at the entrance of these flows, and the increase of funds intended for privatization was 124% BC Data

27 BC and IBGE

28 The average capacity utilization in the manufacturing industry was 80% in July 1994, jumping to 84% in the same period in 1997, when it reached its peak. From then on, there is a relative slowdown in activity levels and thus in capacity utilization, returning to levels in 1998-99 lower than in July 1994. In some sectors, high levels of occupation, even earlier to the implementation of the Real Plan, as in the case of the automotive sector (87% occupancy in July 1994), certainly contributed to induce investment decisions on expansion and / or creation of productive capacity. View: Sarti and Laplane (2003).

40% for the industrial sector, which undermines the leverage in GFCF. During the three decades, the assumed direction occurred predominantly in agriculture and services. In the industrial sector, the insertion of the FDI does not exceed 40% over the past three decades, except in the early 1990s, when there is privatization.

In Table 8.2, there is the large investment of FDI in 1995, in telecommunications stemming from the mergers and acquisitions and privatization.

Table 8.2. *FDI flow of stock in Brazil in sectors*

Sectors	Participation in the Capital Stocks – in%		
	1995 *	2005	2015
Agriculture and Ind. Extractive	1.6	10	10
Industry	55	30	35
Food and drinks	5.5	9.7	15
Smoke	1.7	0.3	0
Textiles	1.2	0.6	0
Paper And Cellulose	3.3	0.7	2
Chemicals	11.2	3.5	3
Rubber and Plastic	3.1	1.5	1
Non-Metallic Minerals	1.9	1.2	1
Metallurgy	6	1.44	4
Metal products	1.4	0.4	1
Machinery and equip.	4.9	1.18	2
Electrical equipment	2.6	1.84	1.5
Automotive	6.7	4.3	4
Services	43.4	60	55
Wholesale	5	3.16	6
Retail business	1.6	1.2	1
Financial services	3	8.8	20
Real Estate activities	2.5	1.4	3
Telecommunications	26.9	8.8	5
Electricity, Gas	2.7	8	4

Source: Worked out by the authors based on: Firce and Foreign Capital Census BC. Report historical series (1995-2015) *Note: * Accumulated until 1995*.

When in 1999, 30.7% of the flow of FDI that entered the country were to privatization[29]. The mergers and acquisitions accounted for almost all of this capital contribution. In the second decade of the 21st century, the largest insertion of the

29 The FDI will purchase existing assets, be they public or private, can not be considered macro-economically, as investments. Investments shall only be considered if the owners realize later additional investments in the modernization or expansion in production capacity. Only then, these investments contribute to the growth of gross fixed capital formation and product.

FDI remains in the same direction of the previous two decades, i.e directing them to the service sector.

8.1.2. Trade and trade balance

Regarding imports, the increase of these was given by imports of intermediate goods and capital goods. In Table 8.3, the highest imports in 1995 falling within the machinery sector with 19.95%, where machinery industries accounted for 15.28% of the total. Just behind, 15.92%, the sector; Organic chemical plastics. In 2015, this sector back to be the most import. During the period: electronic equipment and equipment had a high average of 12.62%. In general, this type of imported goods (machinery) falls on domestic productivity, in a way, it enables increased productivity gains, as can occur diversification of domestically produced goods agenda.

Table 8.3. *Coefficient of Brazilian imports (1995-2015)*

Product Class	1995	2015
Machinery	19.95%	17.37%
Chemicals and plastics	15.92%	23.18%
Minerals	14.76%	15.08%
Vegetables, foodstufss and wood	14.72%	6.72%
Transport Vehicles	12.31%	11.61%
Eletronics	10.88%	11.01%
Textiles and furniture	5.70%	4.68%
Metals	3.92%	6.3%
Others	2.75%	0

Source: Worked out by the authors based on: Atlas of Economic Complexity. Report historical series (1995-2015)

The economic internationalization directed the rise in imports. This would have contributed to the increase in production efficiency of domestic firms in the mid-90s onwards[30] (Oliveira Jr., 2000). Add up to these technical and organizational changes that spent much of Brazilian companies in the period, which were directly influenced by the increase in participation of TNCs in the Brazilian market. These investments have helped to reduce deficiencies in sectors of low infrastructure (especially telecommunications) and induced structural changes in the production system, which reflected in increased production of domestic enterprises [31] (Laplane, 2003).

30 For Bonelli and Fonseca (1998), the use of cheaper inputs and better quality was one of the reasons for the increase of the total productivity of factors of production in the 90s.

31 Comparing the Exame Magazine 500 Largest and Best 1995, 2000 and 2008, it is found in situations of domestic companies increased their record revenues, but also the expansion of this market.

For purposes of analysing the impact of this flow in the economic liberalization of foreign trade, have-if the sector according to the propensity to export (export/ net operating income) and import (import / net operating revenue).[32] To check how much each group received investment flows, it is clear that, of all the accumulated FDI from 1995 In 2000, 78.1% was directed to the group 3 (Low Trade Sectors), whose share in total exports and imports of foreign companies in 2000, respectively, 9,1% and 14.7% (Table 8.4).

Table 8.4. *Participation in groups in trade indicators and FDI (%)*

	Export	Import	Export	Import	FDI stock	FDI stock	FDI stock	FDI stock
	2000	2000	2007	2007	1995	2000	2005	2015
Group 1 – Export Sectors – Surplus	38.8	9.2	41.4	11.1	21.2	9.9	16.8	14.6
Group 2 – deficit Sectors	15.1	41.9	16.2	47.7	18.8	29.8	22	16.3
Group 3 – Low Sectors Trade	9.1	14.7	11.5	4.5	31.4	46.7	51.2	49
Group 4 – High Sectors With.	36.8	34.1	30.9	36.6	24.6	13.6	10	20
Not Rated	0.2	0.1	0	0.1	4	0	0	0.1
Total	100	100	100	100	100	100	100	100

Source: Worked out by the authors based on: Force and Foreign Capital Census BC. Report historical series (1995-2015)

In 2007, there is considerable drop of 69% in imports and 26% increase in exports in this sector. Group 2 (Deficit sectors), with high imports and trade deficit accounts for 41.9% of imports and represents only 15.1% of exports in 2000. In 2007, there is little change. Group 1 (Export Sectors – surplus), which has higher propensity to export than to import, accumulated 21% of FDI in 1995 and 16% in 2005. The lower volume of investment belongs to the group 4 (High Sectors Trade), whose business is greater involvement through both exports and imports. This group showed a decrease of 59% in the share of FDI between1995-2005, as well as a decline in exports of 36.8% in 2000 to 24.6% in 2007. From 2005 to 2015, the stock of FDI doubled in group 4. This consists of sectors with the highest level of integration on trade outside, both by imports, as exports. However, half of the stock of FDI remains in group 3, a sector where the propensity to export and import is below average. It consists of groups of products that have low export and import values.

32 Group surplus export sectors – have propensity to export above average propensity to import and below average. This group is dominated by primary or industrial sectors intensive in natural resources. Group deficit sectors- prone to be exported and below the average propensity to import above average. It brings together sectors that import values higher than those exported, destacandose dependent industries of imported inputs. Group of low trade sectors – with both export propensity to import as below average. The great majority are service industries. Group of high commerce, with both tendencies above average. It is composed by sectors with a higher degree of integration in the trade. Industrial sectors are in many cases with significant volumes of trade.

The impact of FDI on the trade balance by excluding investments made with privatization in the early 1990s, half of the FDI went to the sectors with low expression in exports and imports. A significant portion of investments made in unprofitable sectors[33], which generate negative impacts from the point of view of the trade balance (Laplane, 2004). After 1994, the flow of FDI was linked to the recovery of domestic demand (dynamism of the domestic market) promoted by monetary stabilization. Therefore, both the concentration of FDI in the production of goods for the domestic and regional market, as the propensity to import intermediate goods and capital goods, confirming the hypothesis of a negative contribution of TNCs to the Brazilian trade balance, from 1995 (Table 8.5). That is, the host country of the matrix acted more strongly as a source of imports of Brazilian subsidiaries than as a destination of its exports

Table 8.5. *Brazilian imports by category of use – in millions US $*

Category	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014
Intermediate goods	29.885	32.662	34.991	29.639	40.326	55.677	100.320	103.634	122.907	126.893
Capital goods	9.773	11.649	8.680	6.587	6.732	10.515	21.581	25.688	31.662	29.492
Durable consumer goods	2.309	3.396	1.679	1.111	1.189	3.226	7.473	11.388	12.791	10.449

Source: Worked out by the authors based on: Ministries, industry, foreign trade and services (MDIC). Report historical series (1996-2014)

It can be seen in the table, the growth in the three sectors and the considerable increase of intermediate goods from 2006 can be considered in this respect that the micro-economic performances were positive. Possible that the increased import content and productive specializations to increase productive efficiency of enterprises. Regardless of the relative weight of each sector to economic growth is considered as main implication the possibility that policies may encourage FDI to Brazil. The issue is not only related to the aspect of promoting the entry of resources that the country needs. Is yes, related also to reverse the negative impact that this flow causes on the trade balance and current account, as occurred.

In terms of FDI and deficit financing current account since 1999, FDI flows to Brazil was higher or near the current account deficit.[34] This was true even in the years 2001, 2002 and 2003, when these flows were significantly reduced. The deficits commercials 1994-2000[35] partially offset in the final result in the balance

33 Sectors according to the propensity to export (export / net operating income) and import (import / net operating revenue), ranked from these average rates of reference, as stipulated by the Applied Economic Research Institute (IPEA).

34 Data: IPEA

35 BCB date

of payments by increasing FDI entry, because these are larger than deficits. So if it is clear that the flows in the period FDI in the period did not contribute in full to reduce external imbalances in the trade balance, played in part the role in financing deficit in count chain.

However, it is clear that the flows of FDI in the period, did not contribute in full to reduce external imbalances in the trade balance. Studies argue that TNCs work with a volume of imports on the largest production to domestic companies (De Negri, 2003). This means that the increase in FDI leads to growth of imports, without necessarily increasing exports. In Table 8.5, there is a considerably higher share of FDI in imports than in Brazilian exports.

Table 8.6. *Percentage of share of FDI in imports and exports of goods and services (1995-2013)*

Year	Import	Export
1995	8.3	1.7
1996	20.5	0
1997	32	1.4
1998	49.1	3.8
1999	51.7	2.6
2000	50.7	3.15
2001	33.2	-3.11
2002	23.7	4
2003	12.14	1.3
2004	16.6	12.2
2005	43.5	2.5
2006	11.9	23.4
2007	18.7	4.4
2008	19.7	9.3
2009	14.3	-5.7
2010	35.8	9
2011	32.6	3.6
2012	26.9	-1.7
2013	18.8	-0.3

Source: worked out by the authors based on: UnctadStat- Report historical series (1995-2013)

In more extended terms, the sustainability of this equation depend, ultimately, the export capacity of TNCs, which is a result of the strategy of these companies an incentive environment that depend largely on economic policy.

What is refered to brazilian exports, there low competitiveness because the agenda is not diversified and relies on commodities. In Table 8.7, it notes that the exports are based, since 1995, in the agricultural sector. Indeed, the share of this sector has always increased. In 1995, the sector's exports amounted to 39.62% and in 2015, 43.27%. This export structure in 1995, 7.72% were exports of industrial

machinery and in 2015, only 5%. In 1995, vehicle exports were 5.25% and, in 2015, 4.7%. Iron ore in 1995 was 6.75% in 2015, 10.8%. Seed of exports were 5.4% in 1995 and in 2015, 10.41%. Ie the export commodities corresponds, in 2015, 70% of Brazilian exports. Structure that leads to premature deindustrialization[36] (Other than the natural deindustrialization – economic success) and maintains the underdevelopment.[37]

Table 8.7. *Coefficient of Brazilian exports (1995-2015)*

Product Class	1995	2015
Vegetables, foodstuffs and wood	39.62%	43.27%
Metals	15.03%	7.81%
Machinery	8.63%	5.81%
Minerals	8.60%	18.92%
Chemicals and plastics	8.18%	7.70%
Textiles and furniture	6.55%	2.06%
Transport	6.38%	7.99%
Stone and glass	2.78%	2.33%
Electronics	2.72%	1.74%
Others	1.66%	2.38%

Source: Worked out by the authors based on: Atlas of Economic Complexity – historical series (1995-2015)

Even with the considerable increase in the insertion of the FDI for two decades, the expectation that capital flows would increase the external competitiveness, we can not check, because there is a considerable diversification in the export. The FDI is not revealed so significant because, as already mentioned, participated in more imports exports (Table 8.6).

However, it is worth noting that although the growth and gain in exports have been concentrated in the group of primary products, the country managed to increase by little, their participation in the "edge" products in international trade. Table 8.8, verifies that issue.

36 De-industrialization occurs before its productive structure is modernized and diversified, so that per capita income has not yet reached satisfactory levels, similar to those of developed countries. There is a current general trend in the global economies, the increase in the service sector and the reduction of the industrial sector. However, in developed countries that deindustrialization is considered the „natural de-industrialization" which has the connotation of economic success. The country in this situation has a modern and diversified production structure, with relatively high productivity and sufficient to avoid balance of payments problems, and a high per capita income. .

37 The specialization in the Ricardian comparative advantage which leads to poor countries did not break with the structure of the „resource curse" (export commodities) and do not achieve economic development. It does not lead to productive economic complexity, so you can experience the up grade for economic development and, consecutively, the increase to be a rich country. See Gala (2017), Reinert (2017).

Table 8.8. *Value of Brazilian exports in millions corresponding to the technological intensity of products, in millions of US $*

Intensity	2000	2005	2010	2015
Industrialized	**44.419**	**90.758**	**124.593**	**128.190**
Low	19.901	42.472	55.835	55.383
Average-low	7.326	16.176	27.142	25.540
Average-high	10.931	23.906	33.116	38.018
High	6.261	8.204	8.500	9.249
Not industrialized	**9.593**	**25.371**	**73.911**	**68.240**
Unclassified	**1.074**	**2.179**	**3.274**	**3.465**
Total	**55.086**	**118.308**	**201.915**	**191.134**

Source: Worked out by the authors based on: Ministries, industry, foreign trade and services (MDIC). Report historical series (2000-2015)

There is an increase in the values of manufactured goods exports and non-manufactured goods, which have lower relative price.

Conclusion

It was noticed that in the period 1996–2000, the privatization process, characterized by mergers and acquisitions, influenced the allocation of FDI in the Brazilian economy. This "direction" was induced by the privatization process and the greater involvement of foreign financial institutions in the domestic market. However, during this period until the year 2015, FDI is directed to the service sector, not contributing largely to the growth process in the manufacturing industry.

Until 2000, the insertion of the FDI has been influenced by privatization. From 2003 has blossomed. Increased import content and productive specializations forced domestic companies to increase their production efficiency. In a way, this reflected the increase in exports. However, FDI is more directed to the sectors with low expression in exports and imports. Although there was an improvement in the results FOB, the share of FDI is considerably higher in imports than in exports.

Another aspect worth mentioning is the participation of FDI in gross fixed capital formation. Despite the resumption of economic growth in the Brazilian economy since 1994, FDI contributed little to the increase in the investment rate of the economy. That is, the lower share of FDI modalities aimed at expanding or implementing new productive capacity reduced FDI contribution to the gross fixed capital formation. Only after the devaluation in 1999, and virtually with the end of the privatization process, the contribution of this investment was significant in GFCF, lasting until mid-2000. However, FDI / GFCF does not follow the growth of investment in a proportional positive relationship. There are variations. There is a significant increase in1995 1999 and considerable drop in 2005, 2006 and 2009.

In the macroeconomic aspect, it was argued that FDI would be a better method for financing the Brazilian external sector since the imbalance in the balance of payments. It was noticed that the FDI favored to equate this problem occurred only when the change of exchange rate policy in 1999, when this flow has become greater than or very close to the current account deficit. It finances the current account deficits, especially from 2011 to 2014. There is a high propensity to import in the country and, in addition, it should be noted that profits remitted to headquarters are significant when compared inserts.

Given the strategic objective of TNCs, one aspect was considered that through their actions, technological spillovers could occur for local businesses. We saw that the pattern of specialization of national industry showed no major changes, even with large inserts of FDI after 2010. There was a low performance of national innovative firms in relation to TNCs. These innovated more often compared to domestic firms, and these seem to show more adaptive attitude than actually innovative.

Acknowledgements

This work is supported by: European Structural and Investment Funds in the FEDER component, through the Operational Competitiveness and Internationalization Programme (COMPETE 2020) [Project No. 006971 (UID/SOC/04011); Funding Reference: POCI-01-0145-FEDER-006971]; and national funds, through the FCT – Portuguese Foundation for Science and Technology under the project UID/SOC/04011/2013.

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Diogo Albuquerque[38] *Geraldo Reis*[39]

9. Minas Gerais – Brazil – Foreign investment: chances and threats

Introduction

Despite the great differences and distances, Brazil and Poland had similarities in many moments of them histories. Around the 10th century, Poland underwent a process of unification that allowed the foundation of the Polish State and the emergence of sovereigns who left as a legacy the Christianity – a move towards the country's progressive accession to the European ideals. Between the 14th and 16th centuries, Poland became one of the most powerful empires in Europe, with the Polish-Lithuanian union. However, the end of the 18th century inaugurates a period of great instability that culminated in the country's territorial collapse, with the occupation carried out by Russia, Prussia and Austria. Only after the First World War, independence was reconquered for a short period and, again, Poland was invaded, this time by Germany in 1939. The German invasion was devastating to Poland, one of the countries most affected by the conflict. The end of the war resulted in the loss of portions of Polish territories and Soviet domination, which imposed the communist regime on the country. Poland, however, was a pioneer in the process of transition from communism to capitalism in 1989. This process resulted from the growing endurance to the Moscow regime led by the Solidarity movement, initiated in the early 1980's, which enabled the establishment of the modern Republic of Poland and the election of the leader Lech Walesa.

Brazil, in turn, had its territory occupied by the Native Americans for about 60 thousand years before the arrival of the Portuguese. In 1500, the Portuguese began the occupation of the Brazilian territory, transforming it into its main colony until 1822, year of the independence of the country. During the colonial period there were threats to the territorial unit by Spanish, Dutch and French invaders, and even the occurrence of some separatist movements. In 1888, the Republic

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was promulgated, and the territorial unit was preserved since then. Although, throughout its history, the country had never faced a civil war, there were major political breaks in 1930, 1964 and 2016, when elected rulers were deposed. In 1930, a cycle of Governments whose purpose was to promote industrialization by means of an active state policy was initiated. In 1964, the military Government extended the model, in which various incentives were offered for the attraction of foreign capital through the significant expansion of the state's participation in the economy. At the same time, the military kept under strict control the movements of the workers and the persecution to the critics of the regime. In 2016, President Dilma Rousseff had her mandate abruptly interrupted by a new coup modality, the judicial parliamentarian, after years of relative prosperity in the government of the Workers' Party, when great advances were obtained in the combat of poverty and inequality.

The decade of 1980 represented a moment of great challenges for both Poland and Brazil. There were certainly many points of contact between the two countries, which accumulated external debt since the early 1970's and suffered severely the effects of the increase in international interest rates after 1979. The agreements signed at the time with the IMF imposed heavy economic and social costs, making the regimes governing the two countries progressively unsustainable. They were moments of drastic decline in growth, strong rise of inflation and unemployment and great social degradation.

However, the transition in Poland produced faster results than in Brazil. After spectacular falls in the Polish GDP, the country was able to resume economic growth, becoming one of the most successful cases among the countries that abandoned communism in Eastern Europe. In Brazil, on the contrary, the redemocratization brought hopes and uncertainty. The legacy left by the military caused 20 years of economic instability, especially the permanent risk of hyperinflation that was only driven away by the success of the Real Plan in 1994. But, was only at the end of the first Lula government that the resumption of economic growth was possible.

During Lula's Government Brazil's economic and social progress between 2003 and 2014 lifted 29 million people out of poverty and inequality dropped significantly (the Gini coefficient fell by 6.6 percentage points in the same period, from 58.1 down to 51.5). The income level of the poorest 40% of the population rose, on average, 7.1% (in real terms) between 2003 and 2014, compared to a 4.4% income growth for the population as a whole. However, the rate of reduction of poverty and inequality appears to have stagnated since 2015 (WordBank).

9.1. Brazil – Minas Gerais Foreign Direct Investment

Brazil is currently going through a deep recession that combine political and economic crises. The country's production growth rate has decelerated steadily since the beginning of this decade, from an average annual growth of 4.5% between 2006 and 2010 to 2.1% between 2011 and 2014. GDP contracted by 3.8% in 2015, and is expected to fall at least 3% more in 2016 (WordBank).

Brazil is a gigantic country composed of 26 States and its Federal District. Brazil richest states are: São Paulo, Rio De Janeiro and Minas Gerais that together produce more than 50% of Brazilian GDP. The State of Minas Gerais went through a process of development promoted towards a set of coordinated actions held by the public administration. The firs plan to develop the State started during the 1940's and kept going until achieving an economy based on durable and capital goods in the end of the XX century (VIEIRA, 2015). Currently the State suffers with the severe national economic crises. Therefore, the attractiveness financial long term international funds had decrease in the past years.

François Chesnais, in addressing the "La mondialisation du capital", pointed out that due to the progressive weakening of the national states, large corporations make decisions that shape the functioning of many domestic economies and assert themselves as decisive agents of economic transformation. Capital flows are the main drivers of this process, surpassing in importance, the exchange of goods between countries (Chesnais, 1999). These flows are geared towards new investments (greenfield type projects), mergers and acquisitions and portfolio investments – the most volatile component of international monetary flows.

For Appleyard and Field, Jr. (2014), it is necessary to distinguish between two types of capital movements at the international level: Foreign Direct Investment (FDI) and Foreign Investment in Portfolio. Foreign portfolio investment does not involve ownership or control, but the flow of what the economists call "financial capital" instead of "real capital". These financial capital flows have their immediate effects on the balances of payments or exchange rates, not in the production or generation of income.

The FDI is a capital movement that involves ownership and control. Among the forms of FDI that entry in the country, highlights the investments of the G*reenfield* and the *Mergers and Acquisitions* (M&A). The Greenfields refer to the capital invested by foreign companies in projects solely aimed at the implantation or expansion of the productive capacity in the country of destination, not including, therefore, capital flows destined for investment in miscellaneous assets (portfolio)[40], mergers and acquisitions or corporate cash increments. M&A occur

40 Miscellaneous Assets – means all tangible and intangible assets used or useable in the operation, including warranties;

when foreign companies merge or acquire existing companies, thus not extending the capacity installed in the country (Barroso, 2016).

As for the direction, Duce and Espanã (2003) explain that the FDI can be seen from the home and the host perspectives. From the home one, the investment of the resident company to its nonresident subsidiary ones would be included as direct investment abroad. On the opposite, the investment by non-resident branches to their resident company is classified as a decrease in direct investment abroad. Therefore, the Foreign Direct Investment is the difference between the inflows and outflows.

The total of the FDI that entered in Brazil between 2001 and 2017 had increased vastly, however it has decreased since then and after 2014 it has kept steadily between 50 and 60 billion dollars yearly (excluding the reinvestments). The data can be seen on the Figure 9.1. In this image you can see that the 2008 international crises (USA mortgage crises) had not a big role as the 2012 crises (Europe's debt crisis) had in the FDI in Brazil. It can be justified because USA represents 16% percent of the origin of the FDI, while Europe represents a much bigger role as is demonstrated by the Figure 9.2.

Figure 9.1. *Foreign Direct Investments in Brazil between 2001 and 2017.*

Source: Worked out by the authors based on: Data from Banco Central do Brasil. Units are not clear

As is seen in the Figure 9.2, The Brazilian's Foreign Direct Investment originated mainly from Europe. Just Netherlands have been responsible for about 19% of the total amount of FDI invested in Brazil between 2001 and 2017. If we sum the amount that Netherlands, Luxembourg, Spain and France had invested in Brazil during this period it would represents for about 40% of the total.

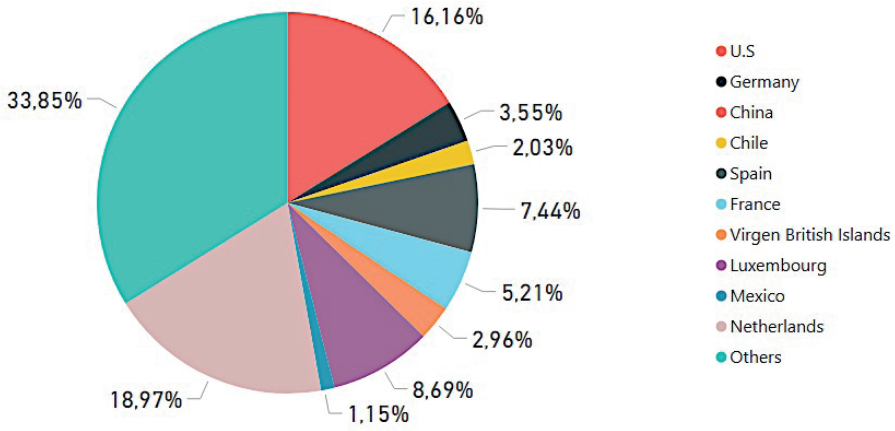

Figure 9. *2. Origen Foreign Direct Investments in Brazil between 2001 and 2017.*
Source: Worked out by the authors based on: Data from Banco Central do Brasil.

The amount of those resources that came to Brazil is invested in projects held across the country in different states. Although São Paulo is the mainly destination of the FDI, the State of Minas Gerais is one of the mostly benefited. Minas Gerais is the destination of over 10% of the nation's FDI as is seen in the Figure 9.3.

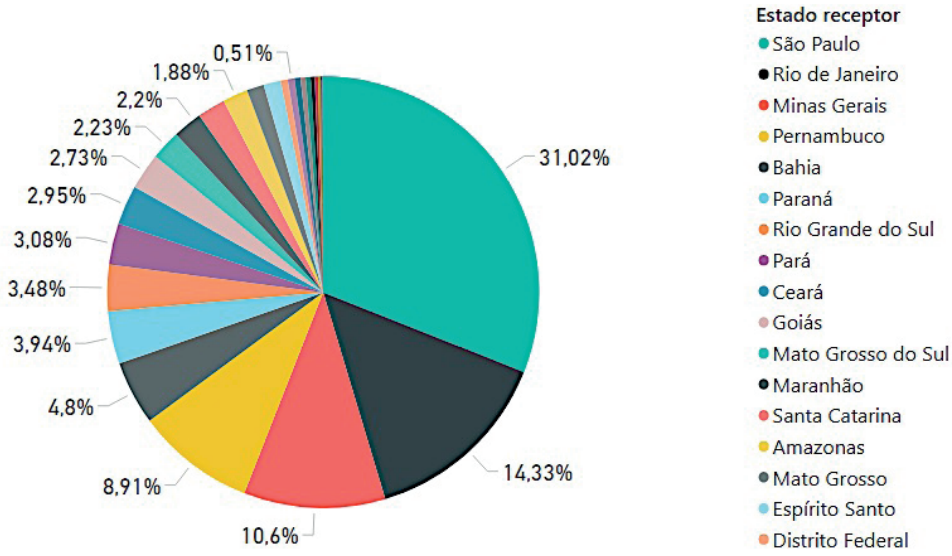

Figure 9. *3. Destination of Foreign Direct Investments in Brazil between 2003 and 2014*
Source: Worked out by the authors based on: Data from FDI Markets (apud Barroso, 2016).

The best stage of development of the main receiving States, such as São Paulo, Rio de Janeiro and Minas Gerais, is due to its location advantages. These localization advantages are characterized by a more consolidated and integrated industrial base, combined with a transport, telecommunications and energy infrastructure that allows companies to reduce production and logistics costs. These States were also benefited from the large volume of foreign investment carried out in the country since the beginner of the 2010's to the exploration of oil and natural gas in the pre-salt region. As well as the Southeast[41], the Southern[42] region was able to attract investments from the most technologically dynamic sectors (Barroso, 2016).

The new world economic and social paradigm impose a new pattern of development to the Brazilian economy. The Southern and some others states of the country as São Paulo and Pernambuco had started the modernization to this new paradigm earlier, stimulating the investments in technologic sectors. Following the opposite way, the Minas Gerais State had allocated its FDI mainly in the traditional sectors during the past years, as can be seen on the Figure 9.4.

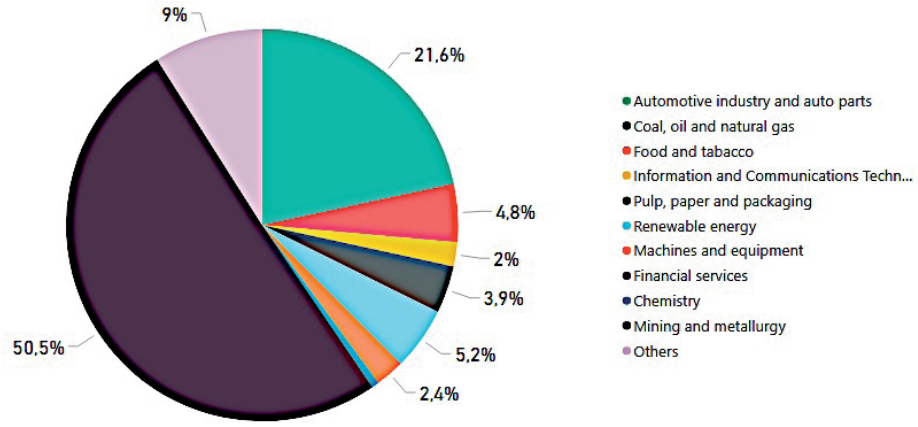

Figure 9. *4. Foreign Direct Investments in Brazil by Activities between 2003 and 2014*

Source: Worked out by the authors based on: Data from FDI Markets (apud Barroso, 2016).

The Minas Gerais FDI between 2003 e 2014 was mainly duo mining and metallurgic activities that represents more than a half of the total FDI in the State. It can be related to the fact that Minas Gerais is one of the biggest producers in mining and metallurgic in the entire world. Minas Gerais accounts for 53% of the Brazilian

41 The Brazilian Southeast is composed by the states: São Paulo, Rio de Janeiro, Minas Gerais and Espírito Santo. It is the most rich and dynamic region in Brazil.

42 The Brazilian Southern is composed by the states of: Rio Grande do Sul, Santa Catarina and Parana. It's a dynamic and developed region of Brazil.

production of iron ore and 29% of ores in general, in addition to being the largest producer of gold, zinc, phosphate and to deter 75% of the world production of niobium. In the state also produces bauxite, manganese, palladium, silver, dolostone, phyllite, quartz, limestone, lead, feldspar, granite, zirconium, cobalt, sulfur, nickel, and manganese. There are more than 300 mines in operation in the state, of which 67% are Class A, and 40 of the 100 largest mines in Brazil are in Minas Gerais. The main companies are: Alcoa, AngloGoldAshanti, ArcelorMittal, Cia. Brazilian Aluminium (CBA), CBMM, National Steel Company (CSN), Jaguar Mining, Kinross, Curimbaba Mining, Samarco, Usiminas, Vale, Vallourec and Votorantim (INDI, 2018).

Other economic activity with an immense importance is the automobilist, which corresponded to more than 20% of the State's FDI during the period. Minas Gerais has three international company's factories: Fiat, Mercedes-Benz and Iveco (INDI, 2018).

For Patterson *et al.* (2004, p. 3) the FDI comprises not only the initial transaction establishing its relationship between the direct investor and the direct investment receiving enterprise but all subsequent capital transactions between and among those enterprises. It is consistent with the Path Dependence Theory (DAVID, 1985).

Recently the State has been attracting valuable investments to renewable energy, especially photovoltaic. Minas Gerais has the largest photovoltaic plant in Latin America, over 1 million solar panels with the capacity to produce more than 400mV, that is located in the city of Pirapora. The high solar radiation index and the central geographic location, considering the national electrical system, make the northern portion of Minas Gerais one of the Brazilian regions most indicated for development and deployment of enterprises Photovoltaics (INDI, 2018).

In 2016 the Government of the State of Minas Gerais has implemented The Integrated Development Plan of Minas Gerais (PMDI) for the period 2016-2027. This plan aims to promote a new round of socio and economic development on the State, as well as to overcome its social and regional inequalities. The diagnosis that supports this new plan emphasizes the role assumed by the State in the process of expansion and modernization of the productive bases of Minas Gerais. The new Era is associated with the emergence and dissemination of the so-called "knowledge Economy", strongly connected to the broad and rapid technological revolution, in which knowledge, science and technology took central role in the economy. For these reasons, the beginning of the new century, largely at the end of its second decade, presented itself as a moment of "structural stagnation" of the Minas Gerais industrial economy, highly dependent on the industries of the twentieth century – metal-mechanical and traditional industry. This is reflected in the State's exporting, dominated by low-and medium-low technological intensity products. Thereafter, The Minas Gerais plan is to promote an agenda through

the generalization of information and knowledge Technologies (ICTs), to build a technological services complex as so as to stimulate and consolidate "bios" and "Nanos" new materials and renewable energies.

Conclusion

Minas Gerais is one of the most developed states in Brazil and one of the states with more opportunities to invest. Although Minas Gerais specialization is in the production of traditional goods, the State has changed its agenda to the new millennium. The main goal now is to stimulate the development of new products and promote an environment that inspire innovation among its citizen and to those who are looking for invest in new technologies.

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