

INTERRELATION OF COUNTRIES' DEVELOPMENTAL LEVEL AND FOREIGN DIRECT INVESTMENTS PERFORMANCE

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Abstract. The aim of this article is to formulate hypothesis about interrelation of countries' developmental level and foreign direct investments performance with reference to relevant scientific literature. Reviewed ample relevant scientific literature made a presumption to arise that the impact of FDI differs in developed, developing and underdeveloped countries, i.e. depends on level of development: developed countries benefit most, developing less and underdeveloped least. Countries to respective groups have been attributed according to their level of development and indicators chosen for the formulation of following hypotheses. The following indicators capable of reflecting FDI impact on enhancing wellbeing in unevenly developed countries (GDP, exports, inflation, population, life expectancy at birth, primary school pupils, infant mortality, total health expenditure per capita, total tax rate, Internet users, residential consumption of electricity) and differences between developed and underdeveloped countries in the fields of : economic, social and business environment. In the paper a series of hypotheses has been formulated.

Keywords: foreign direct investments (FDI), development, sustainable development indicators, gross domestic product (GDP), developed, developing and underdeveloped countries.

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1. Introduction

As inflows of foreign direct investments (FDI) had increased during the last three decades, the issue of their performance gained in popularity. Almost every region of the world is revitalizing the long and contentious debate about the costs and benefits of FDI inflows (Hansen and Rand 2006). On one hand, given appropriate policies and a basic level of development, FDI can play a key role in the process of creating a better economic environment (Armbruster 2005; Lee and Tcha 2004). On the other hand, potential drawbacks do exist, including a deterioration of the balance of payments, as profits are repatriated having negative impacts on competition in national markets (Tvaronavičienė

and Kalasinskaite 2010). Some countries even eased restrictions on repatriations of dividends by foreign companies (Tarzi and Shah 2005).

There are many attitudes towards performance of foreign direct investments and their determinants (Bedell 2005; Head *et al.* 2005; Hoi Ki Ho and Tze Yiu Lau 2007; Ismail and Burak 2009; Jackson and Markowski 1996; Robertson 2006; Tvaronaviciene and Grybaitė 2007). Furthermore, if FDI seems to be beneficial in one country that does not mean that it will be beneficial and in another (Pečarić *et al.* 2005; Vissak and Tõnu Jun 2005). There are many discussions in relevant scientific literature about negative or positive impact of foreign direct investments on host countries' development (e.g. Tvaronaviciene and Kalasinskaitė 2010). We are interested in overall developmental impact of foreign direct investments on differently developed countries (Changwen and Jiang 2007; Hermes and Lensink 2003; Jensen 2006; Lall and Bora 2002; Sumner 2005; Sylwester 2005). Our objective is to formulate hypothesis about interrelation of countries' developmental level and foreign direct investments performance with reference to relevant scientific literature.

2. Foreign direct investments and development connection

2.1. Foreign direct investments impact on host countries' economies

Economic development most generally is perceived as increase in the standard of living of a country's population associated with sustained growth from a simple, low-income economy to a modern, high-income economy. Its scope includes the process and policies by which a country improves the economic, political, and social well-being of its people.

Economic development contains extensive economic growth (output enlargement, using more resources) and intensive economic growth, that is productivity increase, innovation implementation or economic shake-up, new job places creation. Economic development is a process, which can be defined as appointive human, financial, organizational, physical and natural resources mobilization for the purpose to expand provided competitive services and products quality and quantity for community. The main goal of economic development is to enlarge speed of asset creation (Clarc 1990).

Every country has its own level of development which is best characterized by countries development indicators. Furthermore, every nation tries to put all efforts to reach maximum results and improve its developmental level, because all human well-being depends on this.

Foreign direct investments more or less contribute to countries' economic development.

There are two general attitudes towards foreign direct investments impact on host countries' economies. One of them, the most widespread and known for majority of people is presented below. Demand of foreign direct investments for economics, together for economic development is double, – from one point of view the increase or decrease of them affect gross domestic product (GDP), income, unemployment level, poverty, total productivity, quality of services, incentives for innovation, manufacturing trends, funds mobility, trade, exports orientation, etc. Investments are a very important remedy,

encouraging competitive ability of manufactured production or provided services in each of the countries. Moreover, their dynamic tendencies reflect all countries' development perspectives (suppose, if there is an increase in investments most commonly it is thought that economics and business of country revive).

Another attitude mostly implies that foreign direct investments in economics, together with economic development, have a controversial or even negative impact: only a short-term effect on countries development indicators, crowd out domestic investments, repatriate profits to home-country, add up to inflation rate, increase negative balance, political instability, force fluctuation in exchange rates, etc. As it has been mentioned above following the purpose of this article, we will consider the positive and negative points of FDI with the objective to reveal the peculiarities of FDI performance in countries of different development, afterwards hypotheses will be formulated mainly focusing on the beneficial impact of FDI on development.

Following the United Nations Document : private international funds flows, particularly foreign direct investments are vital complements to national and international development efforts. Foreign direct investments contribute toward financing sustained economic growth over the long term. It is especially important for its potential to transfer knowledge and technology, create jobs, boost overall productivity, enhance competitiveness and entrepreneurship, and ultimately eradicate poverty through economic growth and development (Nunnenkamp 2004).

Since the debt crisis in the 1980s the main trend of development theories has been closely associated with the paradigm of market liberalism. This presents direction of development policies towards the facilitation of market forces in order to create an open free economy and allow participation in global trade flows via export-oriented strategies. This development way has been reinforced by subsequent agreements putting in place the conditions of the Washington Consensus and, more recently, World Trade Organization agreements stipulating adherence to global trade norms. As Robert Wade states, mainly the room for developing countries and catching-up economies to initiate national policies for development has been narrowed. These developments seem almost ironically ahistorical , as the norms and regulations governing trade and, therefore, industrialization prohibit developing economies from using the kinds of protectionist policies once implemented by today's industrialized countries in their own catch-up strategies. Successful cases of late industrialization, such as the USA and Germany in the 19th century and the more recent first generation of East Asian Tiger economies, used funds controls, periods of trade protectionism and backward engineering strategies to foster national development capabilities – instruments which are now tightly related. The international development agenda has repeatedly stipulated the need for increased trade liberalization and private funds in order to create economic development. One of the main resources of private funds and, therefore, of development inputs are seen to lie and rely on foreign direct investments.

The 2002 Conference on Financing for Development held in Monterrey, Mexico, proposed that foreign direct investment was one of the main supplements for successful development and the combat against poverty. The conference maintained that foreign

direct investments inflows could facilitate the transmission of knowledge and technology, improve employment, boost productivity and enhance entrepreneurship, as well as ultimately contribute to the eradication of poverty by encouraging economic growth and development (Fink 2006).

2.2. Foreign direct investment and economic growth

Before World War II direct investment was considered as only a special case of portfolio investment, that of the parent firm lending (investing) to (in) a subsidiary. However, when such funds flows cross national boundaries into foreign lands, markets, and cultures, the special case becomes a different subject. The source firm has to contend with differences in distance, time, markets, cultures, languages, personnel, currency, and governments, and other obstacles, which all favor the local competitors under normal circumstances. Foreign direct investments theory, then, must explain why firms can do and go against this tide of market elements to conduct business in foreign markets and nations. Portfolio investment theory did not reflect upon these issues. It remained, then, for some new insight on the part of academia to lead to the creation of foreign direct investments theory. The theory has evolved over the past 30 years and is still evolving (Rayome and Baker 1995).

The inflows of foreign direct investment had increased rapidly during the late 1980s and the 1990s in almost every region of the world revitalizing the long and contentious debate about the costs and benefits of FDI inflows (Hansen and Rand 2006).

Foreign Direct Investment (FDI) addresses to an investment in one economy by a multinational or transnational corporation based in another. It involves a long-term relationship and either full or partial managerial control of real assets – production facilities, real estate or an equity investment exceeding 10% of market funds of the firm. FDI includes all funds provided by an investor, either directly or through an affiliate; and retained profits comprise a large chunk of these inflows. It also includes low interest rate loans provided by parent enterprises, which are usually rolled over, thereby forming a part of the affiliate's funds base. Another form of FDI is long-term trade credits. In rare cases, inward investment involves licensing or management/subcontracting arrangements involving no equity participation.

FDI stock presents the value of the share of affiliate enterprise at book value or historical cost (that is prices at the time when investment was made), plus reserves (including retained profits) attributable to the parent enterprise, as well as net indebtedness of affiliate to the parent company.

There are three types of FDI:

- a) 'Horizontal' or market-seeking FDI, which includes building duplicate production facilities in the host country for supplying local and / or regional markets. The main criteria of such investments are market size, growth prospects, tariffs and transport costs.
- b) 'Vertical' or asset-seeking FDI is usually export-oriented and entails relocating parts of the production chain to low-cost locations. Availability of cheap labour force, natural resources or raw materials (not available in the home country) are the prime

drivers, particularly in the manufacturing sector, when transnational corporations directly invest in order to export, thus factor-cost considerations become important. The output is mainly exported to the investor's home market and other industrialized countries and therefore export oriented FDI is unaffected by the host country's market size.

- c) 'Efficiency-seeking' FDI occurs when the direct investors can gain from the "common governance of geographically-dispersed activities in the presence of economies of scale and scope" according to Campos and Kinoshita 2004.

FDI location is influenced by the host country's comparative advantage, which affects the expected profitability of investment. Potential 'market-seeking' investors target a country with a large and vibrant local market. 'Asset-seeking' investors favour a country with abundant natural endowments. Whereas, 'efficiency-seeking' investors are largely influenced by geographical proximity to their home country, in order to minimize transportation costs (Lall and Bora 2002).

Attraction of foreign direct investments is an essential countries' development indicator. Investments encouragement politics is one of the major politics in every country (The three types of FDI explained 2007).

The theoretical and empirical evidence stress out three main qualitative relations between FDI and growth (UN Commission for Europe, 2000a, 2000b):

- a) FDI – led growth: FDI can stimulate investment, human funds formation, technical progress and productivity, R&D and many other factors which play a significant role in enhancing the rate of growth. It usually happens through direct influence (FDI enterprises) and indirectly through various spillover effects (positive externalities). This thesis seemed particularly promising for the transition countries at the beginning of the 1990s, strengthening the belief that FDI could, without additional endowment and with the introduction of technology and knowledge, kick-off the development. This was also the basis for the understanding about the positive role of FDI in the faster development of these countries.
- b) Growth – driven FDI: this connection is associated with a betterment of investment environment (opportunity for boosting profit). Due to high rates of GDP growth, sound macroeconomic policy, institutional stability, expansion of domestic market, good labour productivity, trans-national corporations (TNC) could use economies of scale and benefit from FDI. This is the reason why more than 2/3 of the total FDI flows lead between developed economies. In short, the countries with the higher level of GDP attract more FDI. Still, large differences have emerged related to the quantities of the FDI received by different economies in transition. Hence, the FDI has become an additional source of the disparities between these countries. As a matter of fact, Poland and Czech Republic started to attract larger quantities of FDI only after having achieved constant economic growth. On the other hand, Slovenia, for example, recorded stable economic growth without attracting significant quantities of FDI. However, stable economic growth of Slovenia (good market fundamentals, financial stability) has only recently opened the door for more important inflow of high quality and acceptable, from development point of view, FDI. Croatia had a

high increase of real GDP per capita during the late 1990s, based on the growth of domestic demand, without significant FDI. Thus, it could be concluded that it is the quality and structure of GDP growth that attracts the FDI. Croatian example shows that high real growth of the GDP per capita (partly based on the domestic consumption financed from abroad), along with weak institutions and inefficient macroeconomic policy, supported the FDI growth. Nevertheless, these FDI were oriented towards local markets and towards tertiary sector. Therefore, trends in economic development as well as expectations from future (development model) are the factors that differentiate countries in transition with respect to the FDI attraction.

- c) Bi-directional causal process: FDI and growth stand in reciprocal causal relationship. The higher growth rate attracts higher FDI, and the higher FDI boosts growth. Due to the different performances of the economies in transition, point in time when they had started to attract FDI as well as various outcomes of the process experienced so far, it is still necessary to give an overview of the most important trends in these countries, aiming to provide a realistic evaluation of the role of FDI in the time to come. Significant FDI inflows into the transitional economies were recorded during the 1990s. At the same time, there was a strong increase of the FDI worldwide. The expectations in the countries in transition regarding the FDI outcomes were high. However, the FDI inflows happened but at a modest pace, far below the expectations. From the very beginning, the FDI inflows have been concentrated in several countries (Hungary, Czech Republic, Poland), accompanied with the Baltic countries later on. Having in mind a simple fact that the future FDI follows the flows of the FDI in the past (agglomeration effect), it is quite reasonable to assume that these countries would preserve such a position in the future as well (Akhter and Syed 1993).

Analysis of foreign direct investment flows confirm that international investors firstly seek for growth opportunities. Practice shows, that foreign direct investments mostly go where there is growth. Maximum foreign direct investments flow between developed, high-income countries. Investments in developing countries are implemented for big market, cheap labour force or cheap resources. But in poor countries even for those motives foreign investors are not investing. They concentrate in middle-income countries with good infrastructure and qualified labour force.

From the above- presented statements a presumption could be made. *We presume that foreign direct investments net inflows differ in developed, developing and underdeveloped countries, i.e. depend on level of development: developed countries attract most, developing less and underdeveloped least.*

In order to raise the following hypothesis, groups of countries have to be attributed to respective groups according to the level of their development. For operational and analytical purposes, the World Bank's main criteria for classifying countries are income categories. With reference to the above- mentioned criteria, countries will be grouped for further research. High-income economies will be ascribed to developed countries; upper-middle-income, lower-middle-income to developing countries and low- income economies to underdeveloped countries (see Appendix 1) (worldbank).

3. Foreign direct investments influence on sustainable development facets of differently developed countries

3.1. Scientists' attitude towards foreign direct investments performance peculiarities

Scientists and politicians unanimously admit that the objective of all economies worldwide is to ensure the developmental impact of FDI. In order to reveal consistent patterns and peculiarities of processes related to FDI impact on host economies, a vast amount of relevant scientific literature has been critically reviewed focusing on scientists' attitude to mentioned issue.

Ample experiences of developed countries lead to the following ideas. A fairly comprehensive survey had been made by De Mello and he concluded that in order that foreign direct investment had a beneficial impact on growth, the country must have attained a sufficiently high level of development. Several other studies (Hermes *et al.* 2003; Alfaro *et al.* 2004) investigated the role of economic markets in FDI and economic growth and discovered that countries well-developed economically gained significantly from FDI (Jackson and Markowski 1996). Impact of FDI depends on the developmental stage of the country in which FDI take place. Blomström *et al.* (1994) find that the positive impact of FDI on economic growth is confined to higher-income developing countries. Borensztein *et al.* (1998) conclude that FDI enhance growth only in countries with a sufficiently qualified labour force, while other researchers claim that countries with a cheaper labour force are more competitive in attracting FDI (Tvaronavičienė *et al.* 2008). Researched performed by Alfaro *et al.* (2001) suggests that FDI is associated with faster growth in host countries with comparatively well-developed economic markets. Likewise, Hermes and Lensink (2003) observe positive growth effects of FDI only after developing host countries have improved their domestic economic systems (Nunnenkamp 2004).

The following ideas are most commonly spread while talking about countries with lower level of development. Blomstrom *et al.* (1994) state that FDI have not a positive impact on growth mostly in what these authors define as 'low-quality data' countries (Campos and Kinoshita 2002).

The main insight is that for poor developing countries, in particular, it appears much more difficult to derive macroeconomic benefits from FDI than to attract FDI. Consequently, it has to be mainly African countries, where FDI may have limited effects on economic growth and poverty alleviation (Nunnenkamp 2004).

From above- presented statements referring to scientists, some consistency can be noticed. *We presume that foreign direct investments influence differs in developed, developing and underdeveloped countries, i.e. depends on level of development: developed countries benefit most, developing less and underdeveloped least.*

3.2. Foreign direct investments impact on various facets in developed, developing and underdeveloped countries

Most of all the analyzed relevant scientific articles outlined the positive points of foreign direct investments in developed countries.

According to Asheghian and Parviz, direct investments growth had a significant impact on the United States' economic growth. Additionally, foreign direct investments had a significant impact on the total factor of productivity in the United States, further contributing to the U.S. economic growth (Asheghian 2004).

Foreign direct investment in the southeastern U.S. has been a key contributor to the region's economic growth and international trade. Ray Owens, an economist with the Federal Reserve Bank of Richmond, Va., said that Southeast has received a disproportionate amount of total foreign investment in the U.S. relative to its size because of relatively low land and labour costs, the low proportion of unionized labour and business-friendly state and local governments, what led to beneficial subsequences of FDI (Armbruster 2005).

The large inflows of FDI allowed the rapid privatization of state-owned enterprises in Hungary. Furthermore, foreign direct investments ensured the reorientation of the Hungarian economy from a centrally planned economy characterized by labour intensive agriculture and heavy industry, to a funds-intensive export economy specializing in high technology manufacturing products. This has enabled a more stable economic growth process with high productivity levels and lower levels of unemployment in Hungary than in its regional neighbours.

Research named "Determinants of foreign direct investment in Spain" also clearly reveals positive influence of inflows of foreign direct investments in Spain. In view of the results, it would seem evident that economic policy in Spain orientated towards attracting FDI, besides taking into account the traditional factors of demand and costs should focus on boosting all of those variables that favour the growth of labour productivity as is the case of investment in education, research, innovation and technology (Rodriguez and Pallas 2008).

Differently from developed countries FDI has a controversial impact on developing and underdeveloped countries. On the whole it is considered that most developing countries and governments tend to attract FDI because of emphasis on positive aspects of FDI. The assets FDI comprises are:

- a) *Funds*. FDI brings in investible financial resources to funds scarce countries. The inflows are more stable, and are easier to service than commercial debt or portfolio investment.
- b) *Technology*. Developing countries tend to lag in the use of technology. Many of the technologies deployed even in mature industries may be outdated. More importantly, the efficiency with which they use given technologies is often relatively low. Even if part of their productivity gap is compensated for by lower wages, technical inefficiency and obsolescence affect the quality of their products and handicap their ability to cope with new market demands. FDI can bring modern technologies and raise the efficiency with which technologies are used. They adapt technologies to local conditions, drawing on their experience in other developing countries.
- c) *Skills and management*. FDI can transfer to host countries by bringing in experts and by setting up training facilities (the need for training is often not recognized by local

- firms). They also possess new, presumably among the best, management techniques, whose transfer to host countries offers enormous competitive benefits.
- d) *Market access.* FDI can provide access to export markets, both for existing activities and for new activities.
 - e) *Environment.* FDI often possess advanced environmental technologies and can use them in all countries in which they operate (Lall and Bora 2002).

It is respected that host country conditions may be improved by FDI influence. Better education and training would add to the supply of qualified labour in developing host countries and improve prospects to benefit from technology transfer and spillovers. More sophisticated local financial markets enhance the capacity of host countries to absorb FDI inflows (Nunnenkamp 2004).

The effect of FDI on economic growth in transition economies is positive and statistically significant in transition economies in Europe. Measurement results, further supported by the information gathered during the discussions, indicate that the entry of foreign banks into the banking market of Bosnia and Herzegovina caused the increased level of competition on the supply side of financial services, thus increasing the quality of services offered to clients. There is a long-run relationship between FDI and quality of institutions and the causality is bidirectional (Hea-Jung 2006).

Moreover, foreign direct investments affect Lithuanian economic growth, a strong positive relationship between FDI stock and GDP growth exists (Tvaronavičienė and Grybaite 2007).

In research “FDI, openness and income” it is stated that income and FDI are positively correlated, and the positive correlation is robust in developing countries. Overall, the evidence tends to suggest a potentially important role of FDI in a country’s living standards augmentation (Ting 2004).

FDI played an important role in leading Chinese export growth (Haishun 1999).

Conversely, in another article it is stated that the development of China’s economy attracts FDI, demonstrates the validity of “the market-size hypothesis” and indicates that output and its growth are determinants of FDI; that FDI does not have an obvious booster effect on the development of China’s economy means that previous research has overestimated the positive effect of FDI on economic growth (Changwen and Jiang 2007).

As we perceive some inadequacies, different opinions arise in scientific articles while talking about the same country and the same issue but during different periods of time.

It is generally stated, that FDI minimize level of poverty. But contrary to other literature sources it is stated that the poverty-alleviating effects of FDI may also be limited because FDI benefits more skilled workers in developing countries, and worsens the relative income position of the poor (Nunnenkamp 2004). Therefore, the idea proves that if FDI seems to be beneficial in one country it does not mean that it will be beneficial in another country as well.

For FDI to help achieve the international development goals of reducing absolute poverty and raising average incomes, two conditions have to be met. First, developing coun-

tries need to be attractive to foreign investors. Second, the host-country environment in which foreign investors operate must be conducive to favourable FDI effects with regard to overall investment, economic spillovers and income growth. To a certain extent, these two requirements involve similar policy challenges for developing countries. The driving forces of FDI include the development of local markets and institutions, an investment-friendly policy and administrative framework, as well as the availability of complementary factors of production. The discussion in the previous sections provided various indications that these factors would also help to ensure favourable effects of FDI in the host countries (Nunnenkamp 2004).

In Estonia there have been proposed many potential problems related to FDI such as the possible withdrawal of investments, uneven regional development, fiscal and balance of payments deficits, cultural conflicts, and increased unemployment. Moreover, the negative side also represents the following ideas- there is no guarantee that investors will transfer the necessary technology and knowledge and increase the affiliates' competitiveness. Moreover, local enterprises can be damaged: their dependence on the foreign owner can grow, considerably reducing their rights and freedom of solution making. Furthermore, they can be forced to produce less profitable goods, stop exporting to certain countries, or end relationships with former buyers and suppliers. Their innovativeness and competitive advantage can decrease and their image could worsen. The assumption arises that Estonia's foreign direct investment needs must be carefully considered. For example, a cheap labour force and low production costs are attractive for investments with low added value. Nevertheless, even advertising the country's favorable economic conditions, liberal economic policy, and low taxes can be insufficient. One of the solutions stated is that Estonia should invest more in infrastructure, education, and research and development (R&D), give potential investors more information about local business possibilities, and improve its image. Moreover, it should create clusters that involve both domestic and foreign-owned enterprises, improve the monitoring of large investors' backgrounds, and be more selective in attracting them, considering the potential long-term implications of proposed investments. Only then can it attract FDI that brings along modern technology, knowledge, and skills, and, as a result, increase its exports. Although companies can lose from foreign direct investment inflows, this does not mean that they should avoid involving foreign partners at any cost. If they can gain in terms of knowledge, market access, or new technologies, then foreign ownership might be reasonable. At the same time, they have to take into account all the negative effects and select investors carefully. It is also important to communicate with foreign owners frequently, learn as much as possible from them, and try to increase freedom mainly in decision-making. Then, positive impacts of FDI should dominate (Vissak 2005). Estonia's case could be regarded as an example for many developing countries in order to have a beneficial impact of FDI.

As we perceive, there more frictions arise about positive impact of FDI when talking about developing countries.

The literature and empirical studies indicate that productivity spillovers from FDI in developing countries are generally not significant, and are less than in the developed

countries. This is due to the lack of competition, the weak capabilities of local firms, as well as the weakness of human funds in the developing countries (Wu 2001).

The rules created in the developed economies cannot be efficiently applied to the developing countries. Embodied in the process of globalization, many of these countries have therefore been lagging behind the more developed countries. Aiming to change such a trend, from the standpoint of the countries in transition, each of these countries should be allowed to create its own country-specific development strategy (Akhter 1993).

Most economists would probably agree that it is not sufficient for developing countries to attract more foreign direct investment (FDI). Even for host countries with high attractiveness to FDI, the challenge remains to ensure that FDI fosters economic development, e.g., by inducing technological and managerial spillovers, generating additional employment and income opportunities, and alleviating world-market integration. However, the consensus hardly goes further than this. It continues to be highly controversial what, if anything, host-country governments can and should do to improve the developmental impact of FDI in Third World economies (Nunnenkamp 2004). For poor underdeveloped countries, in particular, it appears much more difficult to derive macroeconomic benefits from FDI than to attract FDI. Consequently, it is mainly in African countries that FDI may have limited effects on economic growth and poverty alleviation (Nunnenkamp 2004).

All above-presented statements of relevant scientific articles propose the same attitude as famous scientists did: FDI most generally is regarded to have a positive impact on developed countries. When talking about developing countries more frictions arise about the developmental impact of FDI proposing even some inadequacies stated in different literature sources. Lastly, talking about underdeveloped group of countries scientific articles outline the negative tendencies of FDI on development.

From above-presented statements referring to relevant scientific articles the same consistency as from observation of famous scientists attitudes had been noticed. *We presume that foreign direct investments influence differs in developed, developing and underdeveloped countries, i.e. depends on level of development: developed countries benefit most, developing less and underdeveloped least.*

4. Presumptions about foreign direct investments impact on differently developed countries

The effectiveness of FDI policies also depend on whether they are a part of a broader strategy to improve the developmental impact of FDI. Critical elements include the development of local complementary factors of production (e.g., education and skills, local suppliers, infrastructure and business services, approach to innovations (Tvaronavičienė and Degutis 2007) and institutional performance (Tvaronavičienė *et al.* 2009)).

Before we start raising the hypotheses, indicators of sustainable development, which would be considered in this particular formulation of hypotheses, have to be distinguished. Here an important note has to be made: sustainable development is a complex and differently treated notion. On the one hand, it is very broad as may be related to

competitiveness of country (Balkytė and Tvaronavičienė 2010), and on the other hand, if to adopt a very practical approach, sustainable development is being estimated by a broad array of indicators (Grybaitė and Tvaronavičienė 2008). We will consider sustainable development in terms of economic viewpoint, as an entity ensuring the elaboration of environment meeting human needs at present and not reducing human wealth opportunities in the future. Maintaining the approach, sustainable indicators reflecting the betterment of humanity should improve. Hence we selected indicators, which are sensitive to development level of a country and obtain rather differing values in developed, developing and underdeveloped countries. For selected listed below indicators, which in our case, would let introduce differences in countries development through particular sustainability facets, hypotheses are to be formulated.

Furthermore, the following indicators have been chosen as ones capable of reflecting FDI impact on enhancing well-being in unevenly developed countries: GDP, exports, inflation, population, life expectancy at birth, primary school pupils, infant mortality, total health expenditure per capita, total tax rate, Internet users, residential consumption of electricity. As it was indicated above, selected indicators are seen as being of vital importance while reflecting the differences between developed and underdeveloped countries in the fields of economic, social and business environment.

FDI more or less contribute to developed, developing and underdeveloped countries economic growth.

According to Asheghian FDI had a significant impact on the United States' economic growth (Asheghian 2004). The positive influence of FDI on growth in Spain has been revealed as well (Rodriguez and Pallas 2008). Moreover, foreign direct investments affect Lithuanian economic growth (Tvaronavičienė 2006). The effect of FDI on economic growth in transition economies is positive and statistically significant in Europe (Hannula *et al.* 2004). Several other literature sources indicate, that growth of FDI in developing countries is generally not significant, and is less than in developed countries (Wu 2001). Moreover, the rules created in developed economies can not be efficiently applied to the developing economies (Akhter 1993). Next scientific article states that FDI does not have an obvious booster effect on development of China's economy (Changwen and Jiang 2007).

Eventually, FDI may have limited effects on economic growth and poverty alleviation in underdeveloped countries (Nunnenkamp 2004).

From above- presented affirmations a hypothesis can be raised.

Hypothesis 1: *We hypothesize that economic growth most generally is perceived as GDP growth. Moreover, impact of FDI on GDP growth differs in developed, developing and underdeveloped countries. Summing up, developed countries benefit most, developing less and underdeveloped least.*

From our point of view sustainable development is being estimated by an array of upgrading indicators. If the sustainable development progressed, sustainable development indicators should revive and enhance the well-being in each group of differently developed countries. Maintaining adopted approach, other hypothesis will be raised and

obtained results will enable to reveal the peculiarities of FDI performance in developed, developing and underdeveloped countries.

Exports reflect the competitiveness of the country to an international extent and is a constituent of GDP. The bigger inflows of FDI force expansion of labour resources amount and quality, capital amount and quality and can be effective for exports growth. Moreover, most of literature sources indicate the positive FDI impact on export growth, which can be detected in each of country groups: FDI played an important role in leading Chinese export growth (Haishun 1999), they contributed to competitiveness of Polish exports (Tiits 2007).

We assume that FDI has a strong impact on exports growth.

There is an implication that lowering the inflation rate would advance economic growth and bigger FDI inflows into countries (Makki and Somwaru 2004).

We assume that FDI inflows have a solid influence on lowering inflation rate.

Overall, the evidence tends to suggest a potentially important role of FDI in country's living standards benevolence (Ting 2004). Country's living standards will be expressed in terms of population and life expectancy rates.

We assume that FDI has a positive impact on population augmentation.

We assume that FDI inflows have a beneficial influence on elongation of life expectancy rates.

The Millennium Development Goals commit the international community to an expanded vision of development, one that vigorously promotes social development as the key to sustaining social and economic progress in all countries, and recognizes the importance of creating a global partnership for development. The goals have been commonly accepted as a framework for measuring development progress.

The second Millennium Development Goal encourages to "Achieve universal primary education" (worldbank). Under usual circumstances if FDI contributes to benevolence of people's living, it should also contribute to the number of primary school pupils increase.

We assume that FDI has a benevolent impact on the number of primary school pupils increase.

The fourth Millennium Development Goal implies "Reduce child mortality" (world-bank). Under normal circumstances the betterment of living should be expressed in the given way as well.

We assume that FDI inflows have a beneficial impact on fewer occurrences of infant deaths.

Combining the fifth Millennium Development Goal which states "Improve maternal health" and the sixth which encourages to "Combat HIV/AIDS, malaria and other diseases" we make the following hypothesis arise (worldbank). Total health expenditure indicator is decided to be taken for another hypothesis testing to see how FDI affects this sphere of people well-being.

We assume that FDI inflows have a positive influence on total health expenditure increase.

The theoretical and empirical evidence stress out three main qualitative relations between FDI and growth (UN Commission for Europe, 2000a, 2000b): FDI-led growth, growth-driven FDI and bidirectional causal process (Akhter 1993).

Business environment is one of the location factors taken into account by investors while investing abroad [40]. We will test if there is a growth-driven FDI or bidirectional causal processes, that is if FDI helps business environment to improve. The bigger estimated FDI should make total tax rates diminish under normal circumstances.

We assume that FDI inflows have a beneficial impact on total tax rate diminution.

Also, the created well-being should force people make more business or communicate with each other. The above-mentioned operations can not be conceived without Internet.

The bigger FDI inflows, the bigger number of internet users is expected to be.

Reached welfare should force more consumption of energy.

We assume that the bigger FDI inflows contribute to residential electric power consumption increase.

From above presented statements the 2nd hypothesis can be proposed.

Hypothesis 2: *We hypothesize that maintaining adopted theoretical approach, in terms of sustainable development listed aspects, the indicators of sustainable development improve in developed, developing and underdeveloped countries.*

In order to detect strength of FDI impact on selected sustainable development indicators, the following approach is being adopted. For each of the country groups (developed, developing and underdeveloped) a number of strong relationships between FDI and selected indicators is being indicated. According to adopted view, the more strong relationships, the stronger impact of FDI on sustainable development. In case number of strong relationships is not considerable or non-existent, it is considered that FDI does not affect sustainable development in target countries group.

- 2.1. FDI has a positive impact on exports growth.*
- 2.2. FDI inflows have a benevolent influence on lowering inflation rate.*
- 2.3. FDI has a positive impact on population augmentation.*
- 2.4. FDI inflows have a beneficial influence on elongation of life expectancy rates.*
- 2.5. FDI has a benevolent impact on the number of primary school pupils increase.*
- 2.6. There is a connection between FDI inflows and fewer occurrences of infant deaths.*
- 2.7. FDI inflows have a positive influence on total health expenditure increase.*
- 2.8. The bigger FDI inflows contribute to total tax rate diminution.*
- 2.9. The bigger FDI inflows, the bigger number of Internet users is expected to be.*
- 2.10. The bigger FDI inflows contribute to the residential electric power consumption increase.*

Summing up, developed countries benefit most, developing less and underdeveloped least.

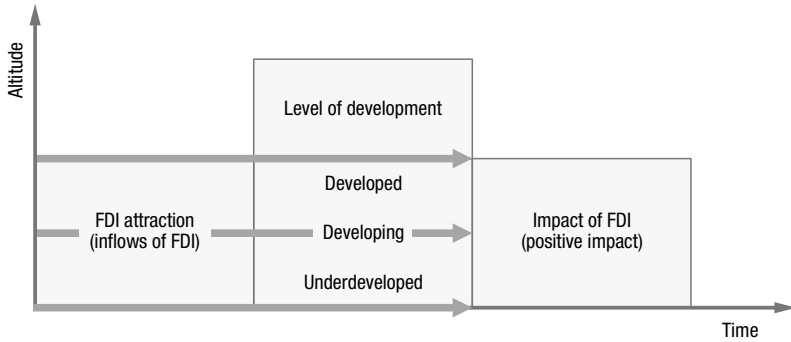


Fig. 1. Generalization of hypotheses

If to follow all the presumptions, we can indicate, that development is of vital importance and plays a significant role both in amount of FDI flows and positive impact of FDI. Fig.1 presents the logical generalization of all presumptions.

The higher developmental level of the host country is, the plausibly bigger flows of FDI are and the bigger beneficial impact of FDI.

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APPENDIX

Countries classification

Low-income economies

Afghanistan	Guinea-Bissau	Rwanda
Bangladesh	Haiti	Senegal
Benin	Kenya	Sierra Leone
Burkina Faso	Korea, Dem Rep.	Somalia
Burundi	Kyrgyz Republic	Tajikistan
Cambodia	Lao PDR	Tanzania
Central African Republic	Liberia	Togo
Chad	Madagascar	Uganda
Comoros	Malawi	Uzbekistan
Congo, Dem. Rep	Mali	Vietnam
Eritrea	Mauritania	Yemen, Rep.
Ethiopia	Mozambique	Zambia
Gambia, The	Myanmar	Zimbabwe
Ghana	Nepal	
Guinea	Niger	

Source: World bank database [online], [cited 2009 May 19]. Available from Internet: <www.worldbank.org>

Lower-middle-income economies

Albania	Honduras	Paraguay
Angola	India	Philippines
Armenia	Indonesia	Samoa
Azerbaijan	Iran, Islamic Rep.	São Tomé and Príncipe
Belize	Iraq	Solomon Islands
Bhutan	Jordan	Sri Lanka
Bolivia	Kiribati	Sudan
Cameroon	Kosovo	Swaziland
Cape Verde	Lesotho	Syrian Arab Republic
China	Maldives	Thailand
Congo, Rep.	Marshall Islands	Timor-Leste
Côte d'Ivoire	Micronesia, Fed. Sts.	Tonga
Djibouti	Moldova	Tunisia
Ecuador	Mongolia	Turkmenistan
Egypt, Arab Rep.	Morocco	Ukraine
El Salvador	Nicaragua	Vanuatu
Georgia	Nigeria	West Bank and Gaza
Guatemala	Pakistan	
Guyana	Papua New Guinea	

Source: World bank database [online], [cited 2009 May 19]. Available from Internet: <www.worldbank.org>

Upper-middle-income economies

Algeria	Fiji	Panama
American Samoa	Grenada	Peru
Argentina	Jamaica	Poland
Belarus	Kazakhstan	Romania
Bosnia and Herzegovina	Latvia	Russian Federation
Botswana	Lebanon	Serbia
Brazil	Libya	Seychelles
Bulgaria	Lithuania	South Africa
Chile	Macedonia, FYR	St. Kitts and Nevis
China	Malaysia	St. Lucia
Colombia	Mauritius	St. Vincent and the Grenadines
Costa Rica	Mayotte	Suriname
Cuba	Mexico	Turkey
Dominica	Montenegro	Uruguay
Dominican Republic	Namibia	Venezuela, RB
Estonia	Palau	

Source: World bank database [online], [cited 2009 May 19]. Available from Internet: <www.worldbank.org>

High-income economies

Andorra	French Polynesia	New Caledonia
Antigua and Barbuda	Germany	New Zealand
Aruba	Greece	Northern Mariana Islands
Australia	Greenland	Norway
Austria	Guam	Oman
Bahamas	Hungary	Portugal
Bahrain	Iceland	Puerto Rico
Barbados	Ireland	Qatar
Belgium	Isle of Man	San Marino
Bermuda	Israel	Saudi Arabia
Brunei Darussalam	Netherlands Antilles	Singapore
Canada	New Caledonia	Slovak Republic
Cayman Islands	New Zealand	Slovenia
Channel Islands	Northern Mariana Islands	Spain
Croatia	Norway	Sweden
Cyprus	Oman	Switzerland
Czech Republic	Portugal	Trinidad and Tobago
Denmark	Puerto Rico	United Arab Emirates
Equatorial Guinea	Qatar	United Kingdom
Faeroe Islands	San Marino	United States
Finland	Saudi Arabia	Virgin Islands (U.S.)
France	Singapore	

Source: World bank database [online], [cited 2009 May 19]. Available from Internet: <www.worldbank.org>

ŠALIŲ IŠSIVYSTYMO LYGIO IR TIESIOGINIŲ UŽSIENIO INVESTICIJŲ VEIKLOS SAŲVEIKA

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Santrauka

Straipsnio tikslas – pateikti hipotezes apie šalių išsivystymo lygio ir tiesioginių užsienio investicijų veiklos sąveiką, remiantis atitinkama moksline literatūra. Peržiūrėjus didelę mokslinės literatūros imtį buvo iškelta hipotezė, kad tiesioginių užsienio investicijų įtaka skiriasi išsivysčiusiose, besivystančiose ir neišsivysčiusiose šalyse, pvz., priklauso nuo išsivystymo lygio: išsivysčiusios šalys pasipelno daugiausiai, besivystančios mažiau ir neišsivysčiusios mažiausiai. Šalys suskirstytos į grupes ir rodikliai pasirinkti tolesnėms hipotezėms formuluoti. Rodikliai atspindi ir išryškina tiesioginių užsienio investicijų galimybę didinti skirtingai išsivysčiusių šalių gerovę (bendrasis vidaus ūkio produktas, eksportas, infliacija, gyventojų skaičius, gyvenimo trukmė, pradinių klasių mokinių skaičius, kūdikių mirtingumas, bendrosios sveikatos išlaidos, tenkančios gyventojui, mokesčių rodiklis, elektros suvartojimas gyventojui) ir priklauso ekonomikos, socialinių ir verslo aplinkos sritims. Suformuluojamos kelios kitos hipotezės.

Reikšminiai žodžiai: tiesioginės užsienio investicijos (TUI), išsivystymas, darnaus išsivystymo rodikliai, bendrasis vidaus produktas (BVP), išsivysčiusios, besivystančios ir neišsivysčiusios šalys.

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