Scandinavian Foreign Direct Investment and Economic Growth of the Baltic States

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Abstract
International capital influences not only the growth of GDP but has impact on the other areas of life such as research and development, export or the growth of salaries. Even more, the intensity of inward foreign direct investment (hereinafter – FDI) shows the host country's openness to foreign capital and its integration into the international market. The article analyses the significance of foreign direct investment in the country and its role in economic development. The authors explore the problems, which exist in attracting FDI. The object of research is the role of Scandinavian capital in the Baltic States. The aim of research is to measure the impact of Scandinavian foreign direct investment on the economic growth of the Baltic States. To implement the aim, the authors of the article apply bivariate correlation and Granger causality test. The research covers the period of 2000-2016. The final results reveal that the Baltic States, especially Latvia, are depended on foreign capital. This proves that the Baltic States compete for inward FDI from Scandinavia.

Keywords: foreign direct investment, economic growth, Baltic States, Scandinavian FDI

1. Introduction

Expected positive impact of FDI on the country's economy increased the demand for FDI. Even more, at the international area countries attracting higher FDI flows are considered to be more competitive than the others in the same geographical area or at a similar stage of economic development level. Thus, the promotion of inward FDI has become one of the most important scientific and economical – political issues. As the flows of FDI promote the adoption of innovations, decreases the unemployment level and stimulates the growth of economic development. Besides, considering to the business sector, privatisation process, licenses and agreements, FDI encourages the modernisation pace of manufacturing technology. Thus, the developing nations target to attract FDI into their economies as they expect long-term economic growth from additional stable resources in the host countries (Iamsiraroj, 2016). However, the attraction of FDI raises integration of companies into market and targeted spending problems. International capital operating in the particular country influences its independence in direct or/ and indirect way. On the other hand, the government directly affects foreign companies. However, some scientists emphasise that FDI stimulation may have negative consequences such as: a country becomes dependent on the MNCs and multinational corporations by lobbying the host governments influence their decision. Even more, the bulk inward FDI from one or two countries may have crucial consequences during global economic crisis. For example Ireland, which developed especially liberal and friendly FDI policy, became dependant on MNCs. Even more,

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experiencing the consequences of global economic crisis, its economy within 1.5 year shrunk by 6.91 % and in 2009 the country was standing on the edge of bankruptcy (Simelyte & Antanaviciene, 2013). Meanwhile, Scandinavian companies more often and often for expansion choose Baltic States, which resulted the growth of financial sector.

Purpose of the article is to evaluate the influence of Scandinavian foreign direct investment on the economic growth of the Baltic States.

Added value – the results of the paper might be used for further research for foreseeing the most promising business areas, which stimulation would increase inward FDI from Scandinavian countries.

2. Theoretical Point of View Towards Foreign Direct Investment and the Economic Growth

Scientists examine the problems of FDI's influence on economic growth, trade and competitiveness of the host economy since the expansion of companies to foreign countries increased in scale. Even more FDI results some changes in the host economy. Scientific literature reveals two directions of research. The first one analyses the influence of FDI on the development of the host economy, the other focuses on the determinants of FDI. Furthermore, the role of FDI on economic growth has been topic of controversial discussion since early 1950s. Since that time the importance of foreign capital has increased. Brown (1950) and Morton (1954) analyse the influence of financial support and foreign direct investment on economic growth. However, both of them emphasise just negative aspects of FDI on economic growth, stability and a lack of reliability. At that time Singer (1950) claims that the host country would not be able to benefit from FDI if foreign capital goes mainly to primary business sectors instead modern manufacturing ones. Meanwhile, Rostow (1954) provides some solutions to avoid negative impact of foreign capital for the economic growth of emerging countries. Later Ben-Shahar (1967) notices that one of the economic growth problems is attraction of non-targeted FDI. However, the interest in attracting FDI and its significance has increased several decades later. Scientific literature (Demir, 2016; Lin & Kwan, 2016; Choi *et. al,* 2016; Umit & Alkan, 2016; Lien & Filatotchev, 2015; Ibrahiem, 2015; Sahin & Ege, 2015; Encinas-Ferrer & Villegas-Zermeno, 2015; Fadhil & Almsafir, 2015; Omri *et al,* 2014) provides plenty of evidence that FDI may have both negative and positive influence on economic growth. Hymer (1971) analyses twofold impact on economic growth. According to the first concept, FDI has positive impact on the host economy, especially in emerging economies or economies in transition. In this case foreign investors increase competitiveness in the market and labour productivity in the host country, create new jobs, and transfer knowledge. Thus, the host country adopts new technologies. On the other hand, the negative attitude towards FDI underlines those foreign investors might suffer from imperfect competition in the host market.

Dutt (1997) while examining the effects of volume and sectorial pattern of FDI on economic, have created the hypothetical North-South model on the assumption that FDI moves rich Northern countries to less developed in the South. At the same time, FDI from North to South leads to technological transfer, which increases the ability of the South producing the Northern goods. However, this assumption failed in cross-

country empirical modelling. The researchers (Singer, 1950; Dutt, 1997; Eller *et al.,* 2006; Ghosh, 2017) prove that FDI effect on economic growth might differ depending the specific business sector. Eller *et al.* (2006) while analysing the impact of financial sector FDI (hereinafter FSFDI) on economic growth, discover that FSFDI is the most significant in earlier stages of emerging economies (Fig. 1). Later greater banking sector openness reduces economic growth. It has been confirmed in emerging markets and low-income countries as well in nations with more than 10% of foreign capital banks. Although Eller *et al.* (2006) emphasize positive aspects of FDI in financial sector such as profit efficiency, transfer of superior managerial skills, bank management and technology. Still they claim that "foreigness" does not guarantee efficiency itself. Even more, FDI may increase managerial cost. Meanwhile, negative affect of increasing FDI in financial sector has not been noticed in advanced economies (Ghosh, 2017).

Hanousek *et al* (2011) find that positive spillovers exist in more technologically advanced sectors or in more industrialized countries. It might be explained that foreign investor acquires a strong domineering company in the host market and stand outs of the other actors in the market. New entering company, which productivity is higher, encourages the existing companies in the market to catch up and in this way the competition in a host country increases (Gui-diby & Renard, 2015).

The other scientists (Humphreys & Padgett, 2006) find that the host country benefit from FDI just in short-term. Lo *et al.* (2016) notice that various studies treat FDI as additional productive resource over and above the domestic stock.
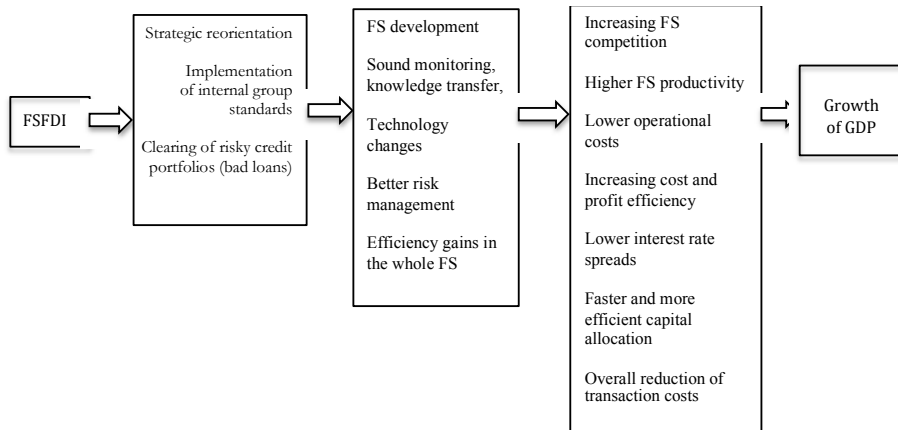

Fig. 1. Financial Sector (FS) FDI-induced efficiency-led growth
Source: Eller et al., 2006

The other scientists are not so optimistic in respect of FDI positive impact on the economic growth (Brown, 1950; Chase-Dunn, 1975; Kahouli & Maktouf, 2015; Xu Xu & Sylwester, 2016; Völlmecke *et al.,* 2016). They emphasise that the main negative consequence of activating inward FDI stimulation is that the host economy becomes dependent on foreign capital over a certain period of time and MNCs have effect on decisions of the host government. Thus, due to the negative impact of FDI, the movement of foreign capital is associated with risk and uncertainty. MNCs are highly

linked to monopolistic imperialism, technological dependence and exploiting pricing strategies.

The analysis of Umit and Alkan (2016) reveals that in Turkey foreign direct investment had negative impact on women employment during the period of 2000-2013. These researchers explain that FDI in Turkey does not create more job places as most of inward FDI is as the result of mergers or acquisition. However, such explanation is quit arguable as usually M&A invests in technological equipment, expands and in this way creates new job places.

Hymer (1971) maintains that the mobility of foreign capital may exist only on imperfect market conditions. An investor while entering a market may choose weaker local company. In this case negative horizontal spillovers occur. Labour or manufacturing costs are one of the FDI determinants. Thus, foreign investor decides to work in exporting industry and does not care about local market. But it uses domestic companies as suppliers, which results positively of horizontal spillovers (Lien & Filatotchev, 2015).

MNCs are likely to invest into economically weak countries benefiting from a low labour cost. However, inward FDI might be determined by political decisions of the host government. The goal of investment policy is to create a friendly business environment for FDI, which would positively affect a long-term growth of economic development.

Table 1. The summary of previous studies on inward FDI and economic growth

Authors	Period	Country/ Region	Methods	Findings
Ghosh (2017)	1995 -2013	138 nations	Solow model of economic growth	Foreign capital banks reduce private credit flows in host nations
Zhu *et al.* (2016)	1981–2011	ASEAN-5	Fixed effect panel regression model	FDI impact on carbon emission is positive
Umit & Alkan (2016)	2000-2013	Turkey	Unit root test Dynamic OLS	Negative impact of women employment
Ibrahiem (2015)	1980-2011	Egypt	ARDL approach Granger causality	Unidirectional causality positive effect
Pegkas (2015)	2002–2012	Eurozone	Fully modified OLS Dynamic OLS Fixed effects panel estimation model Random effects panel estimation model	FDI has positive impact on Eurozone countries
Fadhil & Almsafir (2015)	1975–2010	Malaysia	Production function Hierarchical Multiple Regression	FDI inflows together with human capital strongly contribute to economic growth
Abbes *et al.* (2015)	1980–2010	65 countries	Granger causality test	Unidirectional causality from FDI to GDP
Encinas-Ferrer & Villegas-Zermeno, (2015)	1995–2012	China	Granger causality test Toda-Yamamoto model	FDI as percentage of total fixed capital has only a marginal influence on economic growth
Newman *et al.* (2015)	2006–2012	Vietnam	Cobb-Douglas production function	Positive productivity spillovers exist through direct linkages with upstream FDI
Omri *et al.* (2014)	1990–2011	54 countries	Cobb-Douglas production function	Bidirectional causality between economic growth and inward FDI
Nistor (2014)	1990 –2012	Romania	Durbin-Watson test	FDI has positive influence on economic growth

Authors	Period	Country/ Region	Methods	Findings
Dritsaki & Stiakakis (2014)	1994–2012	Croatia	VAR model ARDL model	FDI does not have significant impact on export and economic growth
Omri & Kahouli (2014)	1990–2010	13 MENA countries	Production function	Bidirectional causal relationship between foreign direct investment and economic growth
Lessmann (2013)	1980–2009	55 countries at different stages of development	Cross-country time series Ordinary least squares	FDI increases regional inequality in low and middle-income countries.
Ahmed (2012)	1999–2008	Malaysia	A times series quarterly data OLS regression	FDI plays a significant role in achieving economic growth through input driven as indicated by the contribution of the total productivity.
Alquacil et al. (2011)	1976–2005	Developing countries	GMM methodology OLS regression	Impact of FDI depends on income level of the country.
Brenkeviciute (2010)	1993–2008	CEECs	Correlation-regression	FDI has positive impact on growth of national economy.
Basu & Guariglia (2007)	1970–1999	119 developing countries	Fixed-effects static panel data model GMM model Production function	FDI promotes both inequality and growth, and reduces the share of agriculture in GDP
Eller et al. (2006)	1996–2003	11 CEECs	Fixed-effects static panel data model	A hump-shaped relationships between FSFDI and economic growth
Li & Liu (2005)	1970–1999	84 countries	Durbin-Wu-Hausman test Unit root test	FDI does not directly promotes economic growth

Since 1950s it is believed that FDI flows only from the advanced economies to countries in transition period or emerging markets. In this way, the host country is defined as a poor country, using old technologies, which result low productivity and low wages. Therefore, host country fails to accumulate funds, thus, the high-level domestic investment is not possible (Lessmann, 2013). For that reason, the countries in transition period or emerging markets do not have other option but to attract foreign direct investment.

In conclusion, it might be maintained that FDI has positive influence on host country, but it also causes risks and uncertainties. Although, the host governments by attracting FDI expect positive impact on the economy, however, FDI does not positively affect itself, since MNCs invest seeking to benefit. Thus, intensive flows of inward FDI does not guarantee the growth of host economy.

3. Data and Methodological Framework

The research covers the impact of Scandinavian FDI on all three Baltic States during the period of 2000–2016. The study is based on national statistics databases. Various studies show that the growth of FDI maintains that a rapidly growing market provides relatively better opportunities for making profits than the markets that grow slowly or do not grow at all (Ginevicius & Simelyte, 2011; Gui-diby & Renard, 2015). To determine the relationships between inward FDI and the growth of host economy and

market potential real growth GDP per capita is chosen (Iamsiraroj, 2016). According to Solow model, long-term economic growth is based on productivity or technological progress, which increases by accumulating capital and the growth of population. The efficiency in manufacturing and productivity grow due adopting new technologies. Thus, several variables regarding technological progress are involved in the research. The first variable is the expenditure on research and development by private companies. Higher productivity and efficiency leads to higher volume of exporting production, which is expressed in millions of euros. Although, one of FDI determinants is low labour cost, usually MNCs pays higher salaries than domestic companies in the same business sectors (Völlmecke *et al.,* 2016). Thus, monthly net income as one of variables is included in the model.

Even more, the adoption of technologies might be encouraged and stimulated by local government in several ways. Once of the local government while trying to focus on targeted business sectors promotes technological sciences and encourages school students to join specific study programmes, which changes labour force structure in the labour market. As an indirect stimulation of the growth of targeted business sectors, government expenditures in euros on tertiary education are evaluated as well (Chowdhury & Maung, 2012; Su & Liu, 2016). Higher expenditures on tertiary education reflect on scientific potential in the country, which is directly linked to the growth of innovations and technological progress. Thus, the number of employees holding PhD is included in the model as well.

$$FDI_{it} = \alpha + \beta_1 economygrowth_{it} + \beta_2 \exp orts_{it} + \beta_3 salaries_{it} + \beta_4 R\& D_{it} +$$

$$+\beta_5 scientificpotential_{it} + \beta_6 education \exp enditures_{it} + \beta_7 unemployment_{it} + \varepsilon \qquad (1)$$

where t – time period of the research, i – number of countries to be observed.

To sum up, in this research paper, based on previous studies, it is assumed that net flows of FDI would serve as dependent variable. FDI influences economy growth both positively and negatively (Sahin & Ege, 2015), volume of exports (Demir, 2016; Lin & Kwan, 2016), increase in salaries (Xu Xu & Sylwester, 2016; Völlmecke *et al.*, 2016), development of R&D and scientific potential (Choi *et. al,* 2016), expenditures on tertiary education (Kahouli & Maktouf, 2015) and reduces unemployment (Lien & Filatotchev, 2015; Su & Liu, 2016) in the country.

Correlation analysis helps to detect relationships between variables under consideration, but it says nothing about the causality. For this purpose, Granger (1969) causality test has been applied to a time series data set to determine the causality between variables. According to Stern (2011), Granger causality analysis demonstrates the likelihood of the causation or the lack of such causation more forcefully than does simple correlation. Granger causality test is based on two regression equations as follows (Stern, 2011; Dritsaki & Stiakakis, 2014; Dudzeviciute *et al.*, 2016):

$$y_t = \beta_{1,0} + \sum_{i=1}^{p} \beta_{1,i} y_{t-i} + \sum_{j=1}^{p} \beta_{1,p+j} x_{t-j} + \varepsilon_{1t} \qquad (2)$$

$$x_t = \beta_{2,0} + \sum_{i=1}^{p} \beta_{2,i} y_{t-i} + \sum_{j=1}^{p} \beta_{1,p+j} x_{t-j} + \varepsilon_{1t} \qquad (3)$$

Where: p is the number of lags, β - parameter, ε- error.

On the basis of Granger test, if the p parameters $\beta 1,p+j$ are jointly significant then the null hypothesis that x does not Granger cause y can be rejected. Also, if the p parameters $\beta 2,i$ are jointly significant then the null hypothesis that y does not Granger cause x can be rejected. Granger causality test refers to the concept of causal ordering and an assumption such as a variable x Granger causes another variable y if past values of x help to predict the current level of y given all other appropriate information (Stern, 2011). All calculations have been performed applying Windows-based econometric software E-views v. 8.0.

4. Discussion of the results and insights

A targeted developed FDI policy increases inward FDI and has positive impact on economical growth of the host country. Current economic expansion proves FDI influence. Its growth is characterised by the change of GDP. Even more, the ratio between GDP and FDI has increased since 2009 in all the Baltic States. Foreign capital affect positively on host economy as long as ratio of GDP and FDI is growing. According to the statistical data, Estonia has peaked its FDI flows in 2005, which had remarkable impact on GDP, international trade, and the growth of wages. Bivariate correlation analysis proves that macro indicators of each Baltic State have significant relationship between FDI and other variables characterising economic situation. The results of empirical tests show that the Baltic States maintain the strongest relationship between inward FDI from Norway and Sweden and macroeconomic indicators with positive link to economic growth. An unemployment level does not correlate strongly with FDI in all the Baltic States. Weak inverse relation between FDI and unemployment level is observed in some cases. Others indicators strongly correlate with FDI (Table 2, Table 3, Table 4). It is evident that Lithuania has strongest links with foreign investors from Norway and Sweden while FDI flows from Denmark are insignificant. Norwegian investors and Iceland's companies make the highest impact on R&D.

Table 2. Results of bivariate correlation between inward Scandinavian FDI and independent variables in Lithuanian case

Factor	FDI Denmark	FDI Iceland	FDI Finland	FDI Norway	FDI Sweden
GDP	-0.127	0.611	0.867	0.942	0.898
Exports	-0.696	0.094	0.433	0.909	0.880
Salaries	-0.757	0.084	0.495	0.958	0.953
R&D	0.084	0.637	-0.128	0.736	0.477
Scientific potential	0.255	0.659	-0.102	0.653	0.353
Expenditures on education	-0.942	-0.953	0.255	0.845	0.253
Unemployment	-0.732	-0.346	0.285	0.653	0.736
R	0.824	0.801	0.681	0.962	0.968
R^2	0.696	0.642	0.463	0.925	0.937

However, only inward FDI from Norway has notable influence on expenditures on education, which shows that Lithuanian government targets Norwegian companies. Swedish investors have weak impact on R&D, scientific potential and expenditures on

education. This might be easily explained that most FDI made by Sweden are in banking and insurance sectors. Meanwhile, inward FDI from Denmark has inverse relationship with most of factors. It is noticeable that Denmark and Finland do not influence R&D and scientific potential in Lithuania. Even more, there exist strong inverse correlation between expenditures on education and inward FDI from Denmark and Iceland. The strongest impact on an unemployment level has Norwegian investors, while correlation between Lithuanian an unemployment level and inward FDI from Finland is the weakest.

Table 3. Results of bivariate correlation between inward Scandinavian FDI and independent variables in Latvian case

Factor	FDI Denmark	FDI Iceland	FDI Finland	FDI Norway	FDI Sweden
GDP	0.891	0.730	0.892	0.835	0.892
Exports	0.610	0.519	0.693	0.942	0.948
Salaries	0.797	0.695	0.768	0.837	0.896
R&D	0.733	0.529	0.693	0.633	0.688
Scientific potential	0.739	0.679	0.633	-0.01	0.110
Expenditures on education	0.970	0.931	0.947	0.603	0.723
Unemployment	0.201	-0.230	-0.262	0.004	0.037
R	0.991	0.987	0.987	0.968	0.988
R²	0.981	0.975	0.975	0.940	0.976

The results prove the situation is different in Latvia. For example FDI made by Denmark's investors has positive correlation with all factors. Even companies from Iceland make higher impact on Latvian economic growth than in Lithuania. Meanwhile, Norwegian and Swedish investors make the greatest influence on Latvian economy. Denmark has the most significant impact on R&D, scientific potential and expenditures on education. Both Norwegian and Swedish investors have unexceptional influence on R&D and expenditures on education, however they have no effect on scientific potential. Even more, Scandinavian investors significantly influence GDP and export but have no effect on an unemployment level in Latvia.

Table 4. Results of bivariate correlation between inward Scandinavian FDI and independent variables in Estonian case

Factor	FDI Denmark	FDI Iceland	FDI Finland	FDI Norway	FDI Sweden
GDP	0.851	0.921	0.986	0.866	0.875
Exports	0.833	0.403	0.417	0.887	0.912
Salaries	0.784	0.395	0.752	0.501	0.769
R&D	0.773	0.357	0.546	0.752	0.828
Scientific potential	0.635	0.351	0.867	0.556	0.563
Expenditures on education	0.803	0.461	0.466	0.683	0.903
Unemployment	-0.226	-0.444	0.263	-0.243	-0.186
R	0.67	0.922	0.971	0.733	0.999
R²	0.752	0.849	0.942	0.586	0.999

The investigation reveals that Estonia has developed the best relationship with Norwegian and Swedish investors, which have the greatest impact on almost all factors. Swedish companies have significant impact on R&D and expenditures on education, while relationship between inward FDI from Finland and scientific potential is the greatest. Inward FDI from Iceland, as in Latvia and Lithuania, does not have important affect on the growth of Estonian economy. The same as in Lithuanian case, in Estonia, weak inverse relationships between inward Scandinavian and an unemployment level exist. Finnish FDI, compared to inward FDI from Denmark, Norway and Sweden, has less significant impact on Estonian GDP and export. Meanwhile, Sweden and Denmark have the highest impact on salaries growth in Estonia. Although, the impact of each Scandinavian country differs, it can be stated that the Baltic States are dependent on FDI.

4.1 The Examination of the Causal Relationships: Granger Test Application

In this section, Granger causality test has been applied in order to study the forerunner-lag relationships between FDI from the Scandinavian countries and economic growth of the Baltic countries. The analyzed period involves the years from 2000 to 2016.

Table 5. Relationship between inward Scandinavian FDI and Economic Growth in 2000–2016

	Lithuanian case		Latvian case		Estonian case	
	Correlation	t-statistics	Correlation	t-statistics	Correlation	t-statistics
Denmark	-0.127	0.496	0.891	7.529	0.851	6.272
Iceland	0.611	2.988	0.730	4.139	0.921	9.210
Finland	0.867	6.745	0.892	7.644	0.986	22.631
Norway	0.942	11.000	0.835	5.900	0.866	6.708
Sweden	0.898	7.979	0.892	7.644	0.875	7.005
			t- critical = 2.131			

The results after using Granger test are presented in Table 6. The null hypothesis is rejected if probability associated to F-statistic is ≤0.05. Conversely, the null hypothesis is accepted if the associated probability of F statistic is >0.05.

The results of Granger causality test have revealed new empirical insights into the long – run relationships between foreign direct investments and economic growth of the Baltic countries. In examining long-run relationships between FDI and economic growth, it is noticeable, that the results have varied across the Baltic countries. The Lithuanian case has demonstrated unidirectional causality running from Icelandic FDI to GDP. It means that FDI from Iceland has promoted the Lithuanian economic growth. On the other hand, the growth of the Lithuanian economy gives possibilities to attract more FDI from Norway and Sweden. This fact has been confirmed by the unidirectional causality from GDP to FDI. Finally, Granger causality analysis has not detected the causal relationship between Finnish FDI and economic growth in Lithuania. It has supported neutrality approach. The Latvian case has indicated that neutrality approach has been supported many times regarding the causal relationship between FDI from Scandinavian countries and economic growth, except unidirectional causality between economic growth and FDI from Sweden. In fact, the growth of GDP has accelerated the Swedish investments to the Latvian economy. Estonia has shown different results regarding FDI – growth

nexus. Bidirectional causality has been found between investments from Denmark and economic growth in Estonia. Moreover, unidirectional causality has been detected from GDP to FDI of Iceland and Norway. It has indicated that policy-makers should focus on economic growth in order to attract more investments from Iceland and Norway. In other words, the Estonian economic growth has promoted foreign investments from Iceland and Norway. Conversely, the flows of investments from Finland has accelerated the economic growth of Estonia. Of course, in this case, economic policy should be addressed to make better and more attractive conditions for Finnish investments. Ultimately, the research has revealed the absence of causality between the Swedish investments and economic growth in Estonia.

Table 6. The results of Granger causality test

Null hypothesis	Observations /Lags	F-statistic	Probability	Test results
Lithuanian case				
GDP does not Granger cause of FDI from Iceland	Obs.: 15	0.02879	0.9717	Accepted
FDI from Iceland does not Granger cause of GDP	Lags: 2	6.83771	0.0134	Rejected
GDP does not Granger cause of FDI from Finland	Obs.: 16	0.14461	0.7099	Accepted
FDI from Finland does not Granger cause of GDP	Lags: 1	1.95190	0.1858	Accepted
GDP does not Granger cause of FDI from Norway	Obs.: 14	27.7069	0.0003	Rejected
FDI from Norway does not Granger cause of GDP	Lags: 3	0.19809	0.8945	Accepted
GDP does not Granger cause of FDI from Sweden	Obs.: 14	9.03623	0.0084	Rejected
FDI from Sweden does not Granger cause of GDP	Lags: 3	0.16586	0.9160	Accepted
Latvian case				
GDP does not Granger cause of FDI from Denmark	Obs.: 16	1.80170	0.2025	Accepted
FDI from Denmark does not Granger cause of GDP	Lags: 1	0.13137	0.7228	Accepted
GDP does not Granger cause of FDI from Iceland	Obs.: 16	0.47906	0.5010	Accepted
FDI from Iceland does not Granger cause of GDP	Lags: 1	0.89615	0.3611	Accepted
GDP does not Granger cause of FDI from Finland	Obs.: 16	0.04081	0.8430	Accepted
FDI from Finland does not Granger cause of GDP	Lags: 1	0.00598	0.9395	Accepted
GDP does not Granger cause of FDI from Norway	Obs.: 16	0.39233	0.5419	Accepted
FDI from Norway does not Granger cause of GDP	Lags: 1	0.49660	0.4934	Accepted
GDP does not Granger cause of FDI from Sweden	Obs.: 14	6.13016	0.0227	Rejected
FDI from Sweden does not Granger cause of GDP	Lags: 3	0.31846	0.8121	Accepted
Estonian case				
GDP does not Granger cause of FDI from Denmark	Obs.: 16	12.0711	0.0041	Rejected
FDI from Denmark does not Granger cause of GDP	Lags: 1	6.93342	0.0207	Rejected
GDP does not Granger cause of FDI from Iceland	Obs.: 13	7.91770	0.0349	Rejected
FDI from Iceland does not Granger cause of GDP	Lags: 4	0.32051	0.8519	Accepted
GDP does not Granger cause of FDI from Finland	Obs.: 16	3.82859	0.0722	Accepted
FDI from Finland does not Granger cause of GDP	Lags: 1	34.8398	0.0000	Rejected
GDP does not Granger cause of FDI from Norway	Obs.: 13	9.78653	0.0242	Rejected
FDI from Norway does not Granger cause of GDP	Lags: 4	0.73287	0.6147	Accepted
GDP does not Granger cause of FDI from Sweden	Obs.: 16	1.02078	0.3308	Accepted
FDI from Sweden does not Granger cause of GDP	Lags: 1	1.60901	0.2269	Accepted

Source: authors' calculations applying E-views v. 8.0

Generally speaking, although the causal nexus between FDI and GDP have not always been detected, it is obvious that consideration needs to be given to various determinants of economic growth and making more attractive conditions for foreign direct investments to the Baltic countries.

Conclusions

The analysis of scientific literature shows that the role of FDI is twofold. The positive attitude state that FDI positively influences the growth of host economy as it creates new job places, domestic companies improve their technological processes due spillover of "know-how". At the same time, large MNCs "push out" of the market local player, or start headhunting and cause brain drain from domestic companies. However, various studies prove that FDI at least in short-term has positive impact on the growth of host economy. Thus, for the last two decades, the governments of host countries tend to form FDI policies and attract foreign investors. However, some countries while welcoming every foreign investor became highly dependent on FDI.

The empirical study shows that the Baltic States are dependent on FDI from Scandinavian. Each Scandinavian country has impact on Baltic economies, however, the highest influence make Norwegian and Swedish investors in all Baltic States. Meanwhile, the least important FDI are made by Iceland, which shows that the Baltic States have not developed very strong relationships with Iceland yet. In Lithuanian case, the strongest correlation exists between Norwegian and Swedish FDI and all factors, except an unemployment level. Meanwhile, in Latvia's case, there is no one dominant country. Meanwhile, inward FDI made by Norway, Denmark and Sweden has the significant impact on the growth of Estonian economy. Thus, the study proves that the Baltic States welcome foreign investors form Scandinavian countries and compete with each other for FDI.

The results of Granger causality test have revealed new empirical insights into the long – run relationships between foreign direct investments and economic growth of the Baltic countries. In examining long-run relationships between FDI and economic growth, it is noticeable, that the results have varied across the Baltic countries.

The Lithuanian case has demonstrated unidirectional causality running from Icelandic FDI to GDP. Moreover, the growth of the Lithuanian economy gives possibilities to attract more investments from Norway and Sweden. Finally, the causal relationship has not been detected between Finnish investments and the Lithuanian economic growth.

The Latvian case has shown that neutrality approach has been supported many times regarding the causal nexus of FDI from Scandinavian countries and economic growth. Also, the results have revealed that the Latvian economic growth has accelerated the Swedish investments.

The Estonian case has indicated different results regarding FDI – growth nexus. Bidirectional causality has been found between investments from Denmark and economic growth; unidirectional causality has been detected from GDP to FDI of Iceland and Norway. The flows of investments from Finland have accelerated the economic growth; and ultimately, the research has revealed the absence of causality between the Swedish investments and economic growth in Estonia.

Although the causal nexus between FDI and GDP have not always been detected, it is obvious that consideration needs to be given to various determinants of economic growth and making more attractive conditions for foreign direct investments to the Baltic countries.

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