Mendel University in Brno
Faculty of Business and Economics

Determinants of foreign direct investments in Slovakia

Bachelor thesis

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Abstract

Piršelová, S. Determinants of foreign direct investments in Slovakia. Bachelor thesis. Brno: Mendel University, 2017.

The bachelor thesis investigates factors influencing inflow of foreign direct investments (FDI) into Slovakia. Firstly, the foreign direct investment concept is introduced, its classification and effects on the host country. Next part deals with a development of foreign direct investment in Slovakia, the structure of FDI inflow and effects on Slovak economy. Later, the main determinants are discussed closely. Empirical part examines the influence of particular determinants on Slovak economy applying time series regression analysis based on Ordinary Least Square Method.

Keywords

Foreign direct investments, Slovakia, inflow, econometrics.

Abstrakt

Piršelová, S. Determinanty prílivu priamych zahraničných investícií na Slovensko. Bakalárska práca. Brno: Mendelova univerzita v Brne, 2017.

Bakalárska práca skúma determinanty prílivu priamych zahraničných investícií na Slovensko. Najskôr je vymedzený pojem priamych zahraničných investícií, jeho členenie a efekty na hosťovskú krajinu. Neskôr sú jednotlivé determinanty bližšie skúmané, takisto aj vývoj, štruktúra prílevu priamych investícií a ich vplyv na ekonomiku Slovenska. Empirická časť skúma vplyv jednotlivých determinantov na slovenskú ekonomiku využitím časovej regresnej analýzy a metódy najmenších štvorcov.

Klíčová slova

Priame zahraničné investície, Slovensko, prílev, ekonometria.

Table of content

1 Introduction and aim

1.1 Introduction

In the current era of globalisation characterised by intensive exchange of goods and services, capital flow and labour migration among countries, Foreign Direct Investments (FDI) gain a significant importance as it contributes to promotion of economic growth in a host country through provision of lacking financial resources, new technologies and methods, knowledge and skills and employment opportunities. Since countries profit from the inflow of foreign investments in many ways they try to encourage such investments and therefore analysing factors influencing FDI inflow has received considerable attention in the last years.

FDI has played an important role in a Slovak economy as well. After a transition from planned to market economy and declaring independence in 1993, Slovakia experienced difficult period resulting in a slump in economic development. To build a strong, competitive economy, new technologies, managerial methods and mainly financial capital was needed. Domestic market was not able to supply these lacking assets, therefore, the government found important to start creating favourable investment conditions to enhance inflow of foreign investments and consequent economic growth. Thus, the bachelor thesis deals with the factors having impact on attraction of foreign investors to Slovakia which are discussed in five main parts.

The first part represents literature review bringing together the most influential studies on particular determinants. The second part consists of detailed analysis of the factors in Slovak economy over period of time ranging from 1993 till 2015. In the third part, development of the inward FDI in Slovakia is presented according to years followed by structure of foreign investment inflow. Fourth part deals with effects of FDI on Slovak economy. Last but not least, the fifth part examines impact of single determinants on FDI inflow to Slovakia by using time series regression based on Ordinary Least Square method. Methods used are presented in the Methodology part. In Discussion main constraints are analysed followed by Conclusion where the results and fidings of the thesis are summarised.

1.2   Aim of the thesis

The main aim of the bachelor thesis is to determine factors influencing inflow of FDI to Slovakia and based on the results, to advice what should be done in order to improve the business climate and so to increase the attractiveness of the country among foreign investors.

Moreover, partial aim is to characterise the development of FDI inflow across the last 24 years.

Lastly, the impact of inbound investments on particular macroecomic indicators is observed in order to analyse effect of foreign financial resources on the economy.

2 FDI

According to UNCTAD (World Investment report. 2012) FDI refers to an investment involving long-term relationship made by „direct investor", represented by foreign entity or group of entities to gain lasting interest in a company unincorporated or incorporated enterprise, operating outside of the economy of the investor. Moreover, in case of FDI, investor´s incentive is to gain a significant degree of influence on the management in the company by owning at least 10 percent of ordinary shares or voting power. In case of an incorporated enterprise or the equivalent for an unincorporated enterprise.

FDI composes of:
a) **Equity capital** represented by contribution to equity in the form of share purchases or other capital contributions.
b) **Reinvested earnings** are defined as retained earnings which were distributed to foreign investors according to their equity ownership in the enterprise and then reinvested in the enterprise
c) **Other capital** includes short-term and long-term loans between parent and daughter company

2.1 FDI classification

As FDI represents a broad concept it can be classified according to one of the following criteria (Srholec, 2004):

1. **Target market**
a) *domestic market* – investor´s aim is to satisfy the demand in the host country
b) *foreign market* – export oriented investments with the intention to use resources of the host country to produce goods and services for export.

2. **Motive**
a) *"resource seeking"* – investor´s main incentive is to gain access to host country´s natural resources and factors of production
b) *"efficiency seeking"* – aim of the investment is to gain production process efficiency by taking advantage of host country low labour and transport costs
c) *"asset seeking"*– investments made for the purpose of intangible asset gaining as know-how or patents

3. **Specialisation**
a) *vertical* –foreign investor duplicates the same production in many countries
b) *horizontal* – different production stages are located in multiple countries. Horizontal investment can be further divided to "backward" – production of semi-finished product for home country and "forward" production of finished products

5. **Ownership**
a) *subsidiary* – investor owns more than 50% of equity shares
b) *associated* company – in case of 10 to 50 % stakeholding and significant influence on the company management

c) *joint venture* – co-operation of two or more investors for the purpose of accomplishing a specific task

6. **Entrance**
a) "greenfield" – investment into construction of new facilities in the host country
b) "brownfield" – lease or purchase of existing premise in order to start new prodcution activity
c) acquisitions and merges – represent take over of an existing company (acquisition) and fusion of two enterprises into one (merge)

2.2   Effects of FDI inflow on the host country

FDI is generally regarded by economists, politicians and international institutions as a factor enhancing economic growth of the host country. Moreover, according to OECD countries with weaker economies seen FDI as the main source of achieving growth and economy modernisation. As a result governments, especially those of less developed countries, create public agencies whose aim is to attract foreign investments using public funds. Furthermore, foreign investors are provided with special treatments like tax holidays, offer of direct subsidies, exemptions from import duties and many others.

According to study of Dudáš (2010) there are many positive effects of FDI on the host country. One of them is an inflow of capital not available in the host country coming from investor´s internal sources or from capital markets since multinational companies are seen as financially strong so less risky thus they have easier access to financial resources. The advantage of FDI stems from the fact that investments have usually long-term character and so the host country can benefit from the capital inflow for a long period. Dudáš also stresses out that FDI also help to transfer managerial knowledge, practices and skills through trainings, which are usually of higher quality than provided by local firms, and thus existing stock of knowledge is increased. Moreover, spin-off effect arrives when workers, who were trained for financial, managerial or technical roles, leave the MNE and start their own local company. Another point highlights the positive effect of technology transfer since multinationals are the most technologically advanced companies, spending vast resources on research and development (R&D). FDI can affect economic growth through implementation of technologies and know-how resulting in higher productivity and profits. Moreover, innovations do not stay only in foreign companies but are further implemented in domestic firms. Another positive aspect of FDI is *crowding-in effect* which occurs when foreign investor creates network of domestic and foreign subcontractors for example as it is a common practice in an automotive industry. FDI are also associated with direct and indirect effects on employment. Direct when foreign company provides new employment opportunities while indirect arise when new positions are created at local suppliers of MNE and when new workplaces are available as a result of higher local spending of multinationals´s labour. Penetration to new market is seen as another benefit of foreign investments, however, the impact differs depending on the investor´s motive. Efficient-seeking MNC are those usually export-oriented therefore the effect of such investment will be an increase in exports. Moreover, foreign enterprises may as well enhance economic development by spurring domestic competition resulting in lower prices, higher productivity and better resource allocation. In addition, facing competition from MNE stimulates capital investments of domestic firms in a plant, R&D

and new technology as they strive to win over their rivals. In the case of services especially in financial sector, retailing, telecommunication, impact of FDI on competition in domestic markets might be particularly important as exporting is often not an option since the service has to be produced where it is delivered resulting in a quality enhancement of provided services. Last but not least, foreign investments may also have positive impacts on balance of payments of the host country in three ways. First is associated with initial capital inflow which benefits capital account. The second arises when the FDI is a subsitutes imports and improves current account of balance of payments. The last third benefit occurs when MNC uses foreign affiliates to export its outputs.

Despite studies and theories confirming positive effects of FDI on the host country economy there also exist negative impacts associated with particuar FDI inflows.

Research paper conducted by Beňaček (2000) stresses out negative effects of FDI. One of them refers to hostile takeovers which occurs when MNE invests in affiliates in order to eliminate competition and consequently lower or shut down the production. Moreover, entrance of entrance of financially strong MNE, which benefits from economies of scale or advanced technology usage and thus are able to produce with lower costs, may result in driving local companies out of market as they are not able to keep up with. Negative side effect of FDI in the form of increased unemployment stems from wage increase in MNE provokeing increase in domestic firms as well. However. labour productivity of domestic companies grows at slower pace resulting in an increase of unemployment and decline in competittive ability of domestic companies. In addition, more capital intensive production which is often associated with multinational corporations, may result in more redundancy of labour force. Furthermore, inflow of FDI may cause surplus on capital accounts resulting in an appreciation of domestic currency and may negatively affet domestic exporters who were used to take an advantage of price competition in foreign markets. Another potential drawback Beňaček sees in risk of inflation as increased money supply caused by high inflow of foreign investments has inflationary impacts on the economy. Consequent sterilization brings about rising of interest rates which restrictively effects national economy. Furthermore, FDI can contribute to formation of dual economy. The phenomenom occurs when the governemt focuses on the attraction of foreign investors and neglects domestic producers. As a result foreign companies grows while local are stagnate. In addition, MNC often benefit from tax allowance as part of investment incentives provided by governemt and may result in lower revenues for a state budget. Last but not least, negative effect occurs also when profits made by subsidiaries are transfered to parent company resulting in outflow of capital and worsening of both capital and current account.

2.3 Determinants of FDI attraction

A great deal of empirical studies have been conducted examining factors driving investment decision of foreign investors. Decisions are mainly influenced by motives of FDI which were already mentioned in the part 2.1.1 FDI classification. Following headlines analyse some of the main determinants found in major research papers dealing with FDI.

2.3.1 Matket size and GDP growth

Market size measured by GDP and GDP growth per capita is considered as the main factor of FDI inflow indicating economic health of a country. Increase in GDP per capita is associated with higher inflow of FDI (Kok & Ersoy 2009) as MNE are attracted by larger potential demand and lower cost resulting from economies of scale (Georgantopoulos and Tsamis. 2011). As stated in UNCTAD report (2015) world´s largest economies such as European Union, United States and China are dominating FDI inflow ranking. A large market size also enables MNE to diversify their production according to local demands and tastes and thus there are more markets to penetrate. Moreover, host countries with larger market size and higher degree of economic development provide opportunities for MNE to exploit countries´ ownership advantages

2.3.2 Interest rate

Study by Çevis and Çamurdan (2007) shows positive relation between interest rate and FDI in developing countries and transition economies. Payaslioglu and Polat (2013) by observing FDI inflow in Turkey also confirmed positive significance of interest rate. The impact of interest rate on inward FDI can be explained by different points of view. When the interest rate as a cost of capital is higher in the host country than in the investor´s home country MNE can have a cost advantage over the host country firms. Therefore the higher the ratio of the host country borrowing cost to the investor´s home country cost the higher the FDI inflow to the host country. However, this theory can be applied only if FDI is financed by lendings coming from investor´s country not international capital markets as it is a common practice. Another point considers interest rate as a return on investment. Investments from foreign markets are enhanced when interest rates are higher in the host country than those in the home country or elswhere. Thus high interest rates attract foreign investors looking for high returns (Gross and Trevino 1996). However, the interest rate as a cost of capital negatively influence foreign investments as a rise in interest rate increases capital cost and so limit FDI inflow to the host country (Onyeiwu, 2004).

2.3.3 Exchange rate

Exchange rate can influence inward FDI in different ways. An increase of host country exchange rate compared to home country results in depreciation of host country currency which makes asssets cheaper than those in the investor´s country. Thus increase in inward FDI is expected as MNEs take advantage of low prices in host markets which encourages investmnests in host country assets (Froot and Stein, 1991). In addition, according to Culem (1998) weaker exchange rate reduces labour cost since investors can hire more labour for certain amount of home currency.

2.3.4 Labour cost

Labour cost is another important motivational factor for MNCs to invest abroad. Since the global competition among MNCs increases developing countries such as India or China represent attractive investment destinations due to low labour costs.

There is a vast number of studies discussing impact of labour cost on inward FDI. Majority of them confirms significance of labour cost on levels of FDI inflow. Research conducted by Barrell and Pain (1996) examining factors affecting FDI outflow of American MNCs shows that wages and capital costs are one of the most significant elements influencing investment decision-making of foreign firms. Research papers of Bevan and S. Estri (2004), Leibrecht and Riedl (2008) demonstrate also positive significance of unit labour cost on flows of foreing investments in transition economies and Eastern European countries. Moreover, according to Bellak et at. (2008) 1% increase in wages results in FDI decrease of 0.6% in a set of ten European countries. However, labour cost gains importance mainly in labour intesive industries.

2.3.5 Infrastructure

Roads, ports, railways, airports, telecommunication system, electricity and water supplies belong to infrastructure which is considered as another driving force in attracting FDI flow. The ability of infrastructure to draw FDI resides in the fact that it helps to create favourable investment climate for MNEs to entrust their capital resources into the host country. Poor infrastructure may discourage foreign investors seeking minimization of costs (Khadaroo and Seetanah, 2008). If the MNE is about to establish its subsidiary in developing country to benefit from low labour cost unreliable and unadequate transportation may deter them from doing so. If efficient infrastructure is provided by the host country start-up costs of establishing business are lower (Erenberg, 1993). Furthermore, study by Erden and Holcombe (2005) shows that 10 % increase in public investment owes to 2 % increase in private investment. Study by Jakubiak et al. (2008) analysed investments in automotive industry in Slovakia and factors affecting location of foreing investors. Taking case of PSA Peugeot greenfield investment, he found out that the second most important determinant of location in Western region close to Trnava was motorway and railway accessibility. Proximity to railway network and highway together with reconstruction of nearby airport had a significant weight on building a car plant of KIA Motors around Žilina. Moreover, Kulla (2013) studying trends in electronics industry confirmed location of MNEs in regions with developed infrastructure and an efficient transport system. Based on a research by Kubasáková (2011), 81.39% of all logistics facilities are situated in the Bratislava and Trnava region as a result of good transport connections.

2.3.6. Trade openness

Openness of the economy, measured by the ratio of total trade, sum of imports and exports to the country´s GDP, evaluates economic policies of the country either permitting or restricting trade with other countries. Impact of trade openness varies for different types of inward FDI Jordaan (2004). Market-seeking investors take advantage of less open

economies with many trade restrictions what can be explained by "tariff jumping" theory. MNEs targeting host country market establish their subsidiaries abroad in order to avoid tariffs when exporting products. Thus, in this case a trade liberalisation has a negative impact on FDI. On the contrary, export-oriented foreign firms benefit from liberalised trade policies of the host country as it minimizes transactional costs related to exporting of goods and services. Hence, trade openness draws in flow of foreign investments.

2.3.7   Tax

Results of studies examining impact of fiscal policies on inbound FDI are not unanimous. Cassou (1997) and Kemsley (1998) claim that corporate income tax negatively affects inwards FDI since high corporate tax rates reduce potential profit margin of investments. On the contrary, Porcano and Price (1996) found tax rate as insignificant locational factor of multinationals enterprises. Research conducted by Sato (2012) studying effect of corporate tax rate on FDI inflow of 30 OECD countries during the period ranging from 1985 till 2007 found that 1% decrease in corporate rate results in 2.4% increase of FDI. Furthermore, Joeri Gorter and Ashok Parikh (2003) studying relationship between tax rates and FDI inflow in Europe argues that level of corporate taxes influences locational decision of MNCs since reduction of corporate taxes by 1 percentage point owes to 4 percent increase in foreign investments.

2.3.8   Human capital and labour productivity

Level of human capital, defined as a set qualifications, skills, education and knowledge, is another crucial locational factor taken into account by foreign investors operating in knowledge a skill intensive industries. Positive impact of human capital was confirmed by Eicher and Kalaitzidakis (1997) as well as by Talpas and Enache (2010) who analysed importance of human capital in Central and Eastern countries. The results show that skilled workforce matter for MNCs in these region since investors seek smooth, quick and cost-saving technological transfer from the home country. Level of quality of human capital is closely related to labour productivity as argued by Cörvers (1996) who found significant positive effect of highly-skilled workforce on sectoral labour productivity studying European Union member countries. High labour productivity is an important determinant since it reflects a growing potential of the host country. Economies with increasing labour productivity tend to benefit from low inflation, high rates of growth and strong export demand. Moreover, high level of productivity reduces production costs and thus increases returns on investments which are both important factors mainly for efficiency-seeking investors.

2.3.9   Participation in the Eurozone

Positive effect of membership in Economic and monetary union (EMU) is confirmed by majority of research papers. De Sousa and Lochard
(2006) studied effect of euro as common currency on inward FDI of 21 OECD countries. The results showed positive impact of EMU membership on FDI flow within euro area owing to diminishing transaction costs resulting from elimination of exchange rate volatility. Moreover, Petroulas (2007) focused on the impact of euro on the attraction of foreign investments within Eurozone as well as from countries out of Eurozone. Findings

show that FDI flow among euro area countries increased by 16 percent and by 11 percent among non-euro area states. Furthermore, flow of foreign investments from countries outside the Eurozone to euro countries showed 6 percent increase. Another research of 25 OECD countries made by Schiavo (2007) also confirmed positive effect of euro introduction on cross country investment flow due to elimination of exchange rate uncertainty.

2.3.10 Technological skills

Country´s ability to transfer, adapt and create technological resources represent another important part of its location advantages. Asset-seeking FDI and rationalised foreign investments take advantage of technological inputs available in the host country which either strengthen or complement the ownership advantage of the investing company. According to the study by Chung and Alcácer (2002) companies involved in the research-intensive industries tend to locate in countries with high R&D intensity as observed from multinationals operating in pharmaceutical industry which consider level of R&D intensity the most, twice that of MNEs engaged in semiconductor industry and four times that of companies in electronics industry. To sum up, not only companies from technically lagging countries, but especially multinationals from technically advanced countries are attracted to R&D intensive economies.

3 The development of FDI in Slovakia 1993-2017

During a period ranging from 1993 till 1999 foreign investments entering Slovak economy followed an increasing trend but still lagged behind neighbouring coutries like Czech Republic and Hungary. The reason behind was political and macroeconomic instability and unwillingness of government to privatise strategic state-owned companies. Transformation process towards market economy was slow and unemployment reached high level. Due to unfavourable economic conditions only few MNEs invested in Slovakia. One of the most significant was Volkswagen Bratislava which made an acquisition of Bratislavské automobilové závody in 1991. In 1999 FDI inflow reached 354 millions USD.

After the year 1999 the situation changed significantly. The value of foreign direct investment in 2000 amounted to more than 3.7 billion USD, mainly in the form of equity capital (Fig.2), owing to investments made by German company Deutch Telecom in Slovenské telekomunikácie and by the biggest American steel producer The United States Steel Company which made an acquisition of Východoslovenské železiarne Košice. The increase in FDI inflow was caused by the new government which formed an open policy towards foreign investments and privatisation of state-owned companies. In the same year, Slovak Investment and Trade Development Agency (SARIO) was established with the objective of promoting investment opportunities in Slovakia to the global business community.

In the year 2001, 60 % of all foreign investments flowed mainly to banking sector what was enhanced by intensive privatisation activities from the side of Slovak government. As a result two major banks, Všeobecná úverová banka and Slovenská sporiteľňa, was acquired by foreign financial groups.

In 2002 foreign investments rose sharply to 4.120 billion USD despite global capital flow stagnation. Investments in the form of equity capital flowed to industrial sphere mainly once again as a result of privatisation of strategic companies like Slovenské elektrárne, Stredoslovenský energetický závod, Západoslovenský energetický závod, representing 90 % of overall FDI inflow.

Accession of Slovak Republic to the European Union in 2004 strengthened capital flow with EU member countries and thus positively impacted inward FDI which rose by more than 870 million USD compared to previous year. The form had changed from equity to reinvested capital targeting mostly industrial sector. The biggest share of investments flowed from Netherlands, Germany, Austria and Italy (NBS, 2005).
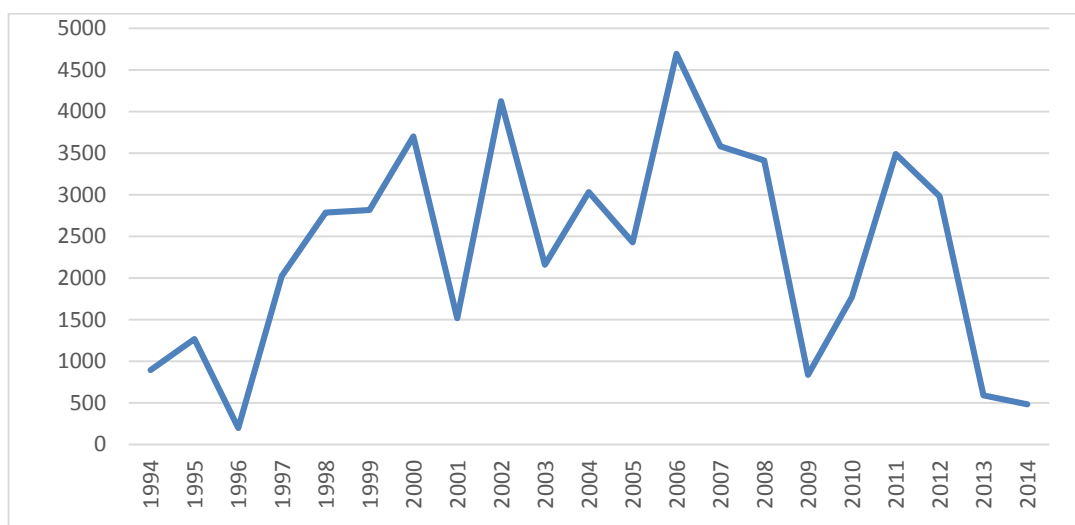
Fig. 1 FDI inflow in million USD 1994-2014
Source: OECD

Year 2006 recorded a significant global increase of FDI flow rising approximatelly by 38% over the previous year (World Investment Report, 2007) The global trend reflected in the Slovak economy as well. Inward FDI increased two times compared to year 2005 and reached the second highest value of 4.692 billion USD since the year 1993. The sharp rise was caused by acquisition of Slovenské elektrárne, a. s. for 839 billion Slovak Crown by Italian manufacturer and distributor of electricity Enel, as well as by greenfield investment by French car producer PSA Peugeot.

In 2007 volume of foreign investmnets slightly dropped to 3.571 billion USD but still both automotive and electronics industry experienced considerable inflow of greenfield investments. South Korean KIA Motors built plant close to Žilina creating 2700 new work places together with 10 000 provided by subcontractors (Sario, 2008). Slovakia won over another potential host country Poland by better level of infrastructure, qualified workforce and favourable investment incentives offered by Slovak government representing 15 percent of overall investment value. South Korean investor Samsung together with Japan company Sony contributed together to the inward FDI by 547 million USD.

In 2008 Slovak economy experienced fall in FDI reaching value of 3.411 million USD due to the beginning of global financial crisis in the second half of the year. The biggest investor was the Netherlands followed by Austria and Germany which together represented 56.4 % share on inward FDI (NBS, 2009). Investments again flowed mainly to automotive and chemical industry in the form of equity and reinvested capital.
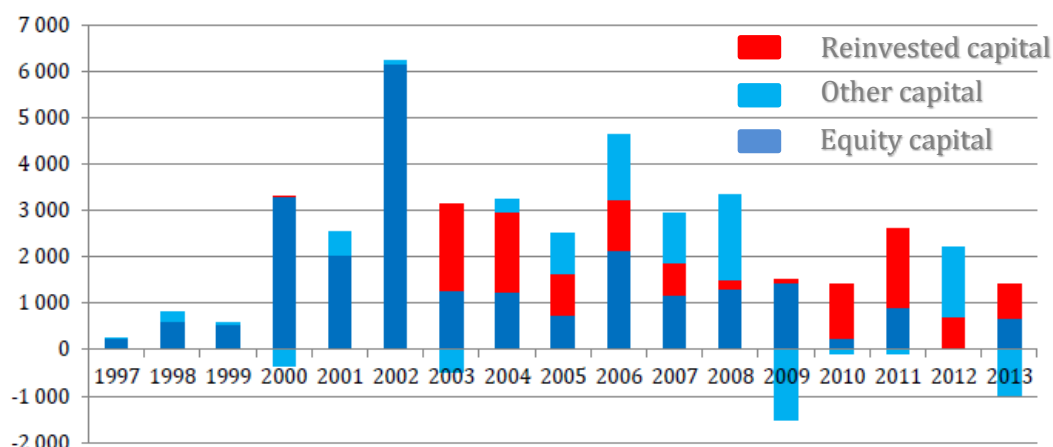
Fig. 2 Composition of FDI inflow in million EUR, 1997-2013
Source: NBS

Adoption of Euro in 2009 was expected to enhance investment flow due to elimination of exchange rate volatility and thus reduction of transactional costs. However, FDI reached only 839 million USD. The reason behind was ongoing financial crisis resulting in a lack of available capital for investments, and worsening of business climate affirmed by World Bank Doing Business report indicating 7 places drop compared to year 2008. Still, Slovakia was the only country of Central an Eastern Europe recording positive figures in inward FDI partly due to an investment from Italian company Trigranit which accounted for 40 % of FDI inflow in 2009. The most targeting industries were automotive, energetic, chemical and tourism. Equity and reinvested capital mainly of Italian and Cyprian companies reached positive values while other capital, representing cross-border short-term and long-term loans between parent and daughter companies, experienced a huge outflow.

In 2010 the economy recovered partly owing to increasing trend of inward FDI but still not achieving figures from pre-crisis period.

Although FDI inflow in 2014 experienced a fall by 106 million USD compared to year 2013, the Slovak Investment and Trade Development Agency registered 25 projects mainly in high value-added sectors, like ICT or electronics, in the total value of 170 million EUR from which 45 % were greenfield investments while the rest represented reinvested capital flow to existing affiliates.

Recently two major greenfield investments were announced by American e-shop Amazon and British carmaker Jaguar Land Rover (JLR), investing 1.3 billion USD, both targeting Western region planning to create together more than 3 800 workplaces.

3.1 Structure of inward FDI according to sectors

As Fig. 3 illustrates that the biggest share of incoming FDI flows to services 61 % and manufacturing sector 33 %. Financial and insurance activities dominate the service sector (Fig. 4) as a result of restructuring and privatisations of Slovak banks in 2001 which are currently all owned by foreign investors. The second place belongs to the Wholesale and Retail trade controlled by supermarkets like Tesco, Lidl, Kaufland, and Repair of Motor Vehicles and Motorcycles, together acccounting for 15 % of overall services. The third largest share is represented by administrative and support activities of Shared service centres (SSC) which number has grown rapidly in recent years. MNCs operating in financial and IT sector mainly, found Slovakia as a perfect location for their SSCs due to factors like geographic and cultural proximity to Western Europe, skilled labour force with a broad knowledge of foreign languages. Biggest SSCs are operated by investors like DELL, IBM, Allianz.
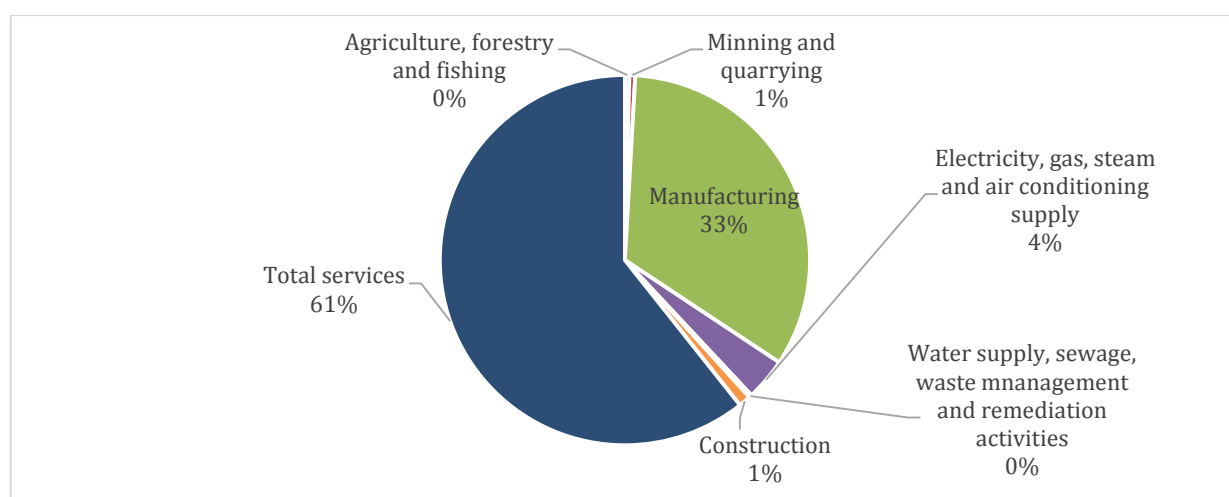

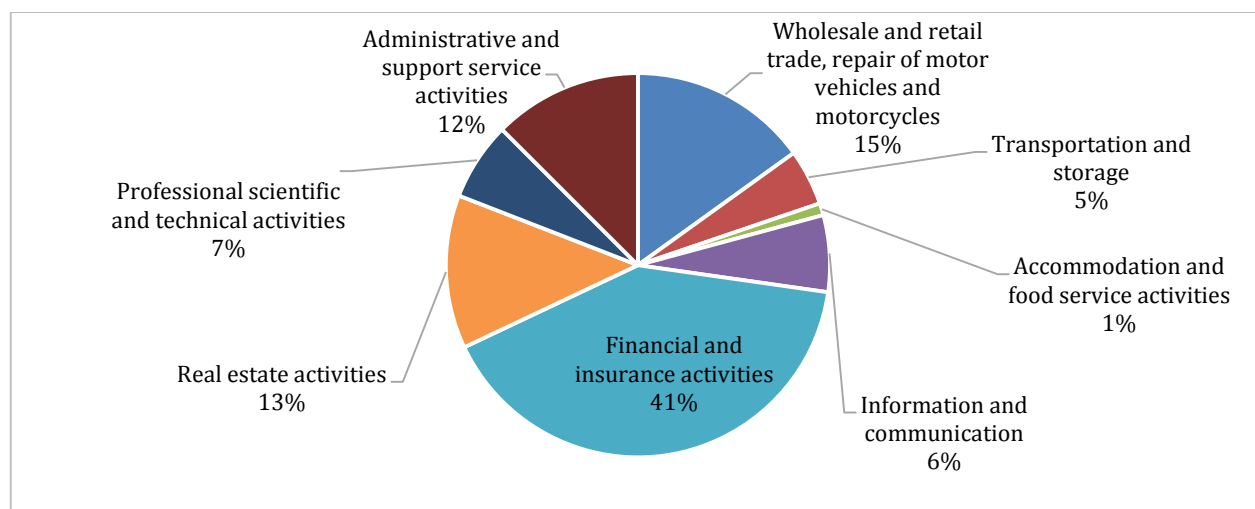Fig. 3 Structure of FDI inflow according to sectors in 2014
Source: NBS

Fig. 4 Structure of FDI flow to service sector in 2014
Source: NBS

According to Fig. 5 displaying the structure of FDI inflow in manufacturing sector, the biggest volume of investments reach automotive sector due to operation of three major car producers Volkswagen, KIA Motors and PSA Peugeot. Number of produced cars topped 1 million in 2015 making Slovakia the biggest car producer in the world. Slovak economy depends heavily on automotive industry since it contributes significantly to economic growth via an increase in GDP, higher employment, productivity and exports. However, some economists argue that a strong orientation on a certain type of industry like automotive, may increase the vulnerability of Slovak economy to cyclical fluctuations. Production of metals accounts for 22 % represented by subcontractors supplying mainly to car production companies. Significant share receives also petroleum industry with the major investor Slovnaft. Machinery and equipment together with rubber and plastic production stands for a 9 % share what can be again due to linkage with car industry. Recent trend of investing in R&D and IT sectors with higher added value can be seen also in Slovak economy as 7 % of overall investments in manufactruring target production of computer and optical products. The trend is also supported by Slovak government which recently introduced tax allowances for industries engaging in research and development.
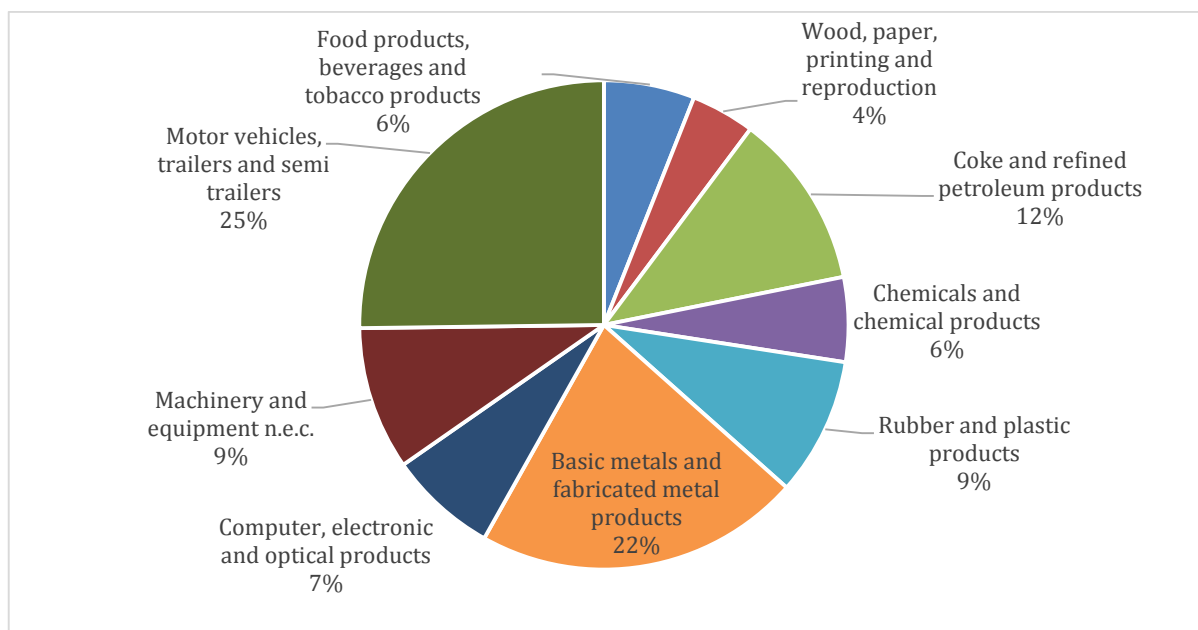

Fig. 5 Structure of FDI flow to manufacturing sector 2014
Source: NBS

4 Effects of FDI on Slovak economy

Development of Slovak economy shows that FDIs play an important role in the promotion of economic growth. Inflow of capital and new technologies led to successful transformation of Slovak economy. FDI contributes by a significant share to the creation of gross fixed capital, the highest value was recorded in 2002 (Fig. 6), which raises the prospects for future GDP growth due to increase in productivity and expansion of production capacities.
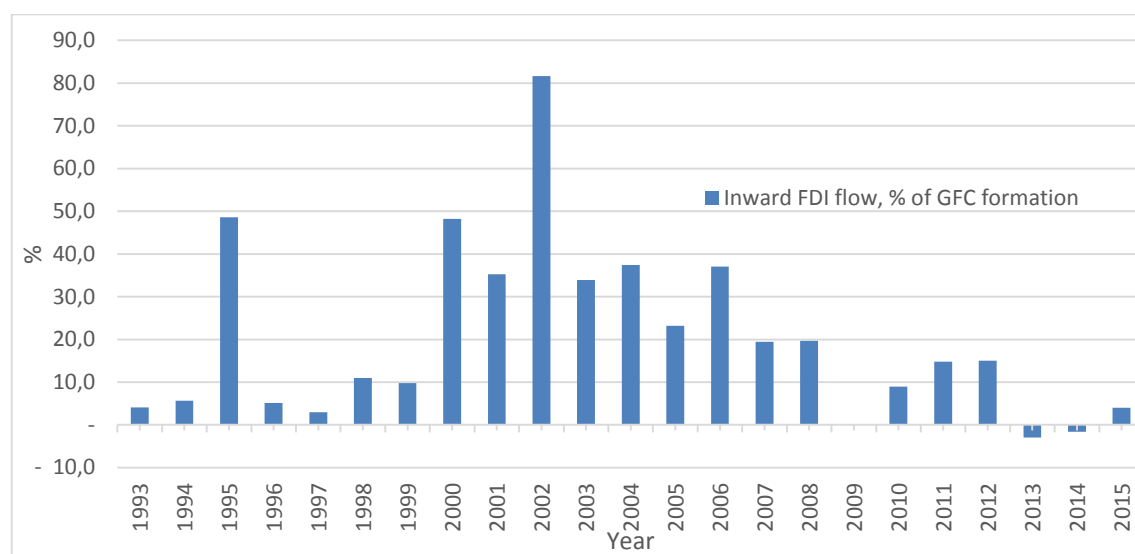

Fig. 6 Inward FDI flow as a percentage of Gross Fixed Capital formation
Source: UNCTAD

Strong relationship between FDI and GDP in Slovak economy was confirmed by the research conducted by Drábek and Živický. Results showed that FDI contributed to economic growth by 92% in the period from 1999 to 2005 and thus foreign investments play a crucial role in the Slovak economy.

Figure 7 illustrates annual GDP growth which almost perfectly matches inflow of foreign investments into Slovak economy. The highest growth of 10.37 % recorded in 2007 was from a significant part caused by expansion of production capacities and activities mainly in automotive and electronics industry. On the contrary, the negative value in 2009 was due to global financial crisis which negatively impacted investment incentive of MNC and so inward FDI.
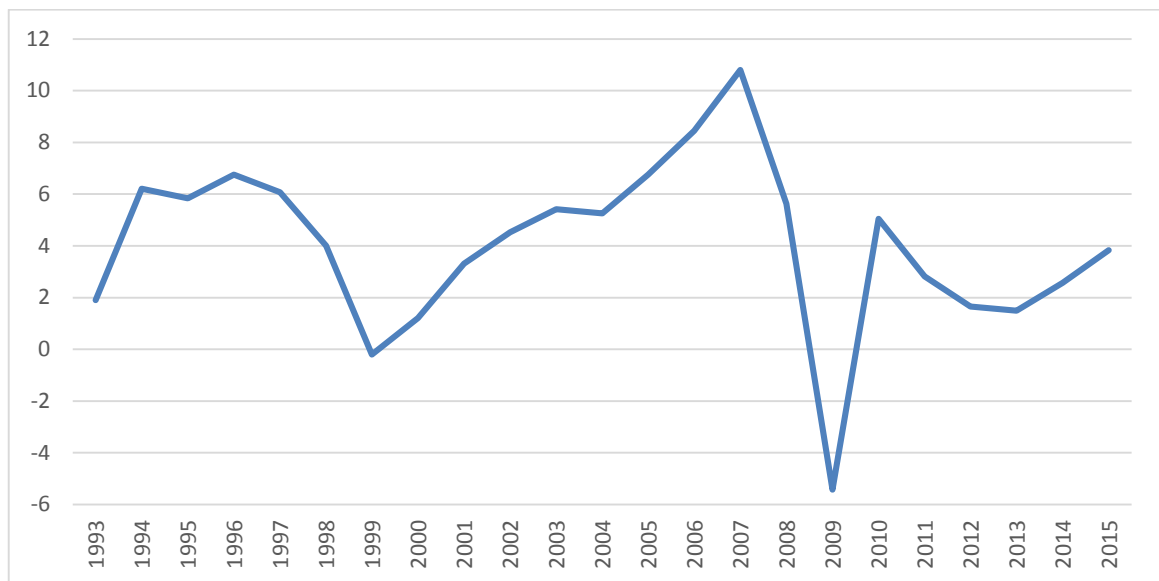
Fig. 7 GDP growth in % 1993-2015
Source: The World Bank

Positive impact of FDI on the economy may be also drawn from the regional GDP per capita figures. As we can see from the Figure 8 the highest level of GDP per capita is associated with Western regions while Central and East regions, those with lower foreign investment inflow, contribute to GDP by a smaller share.
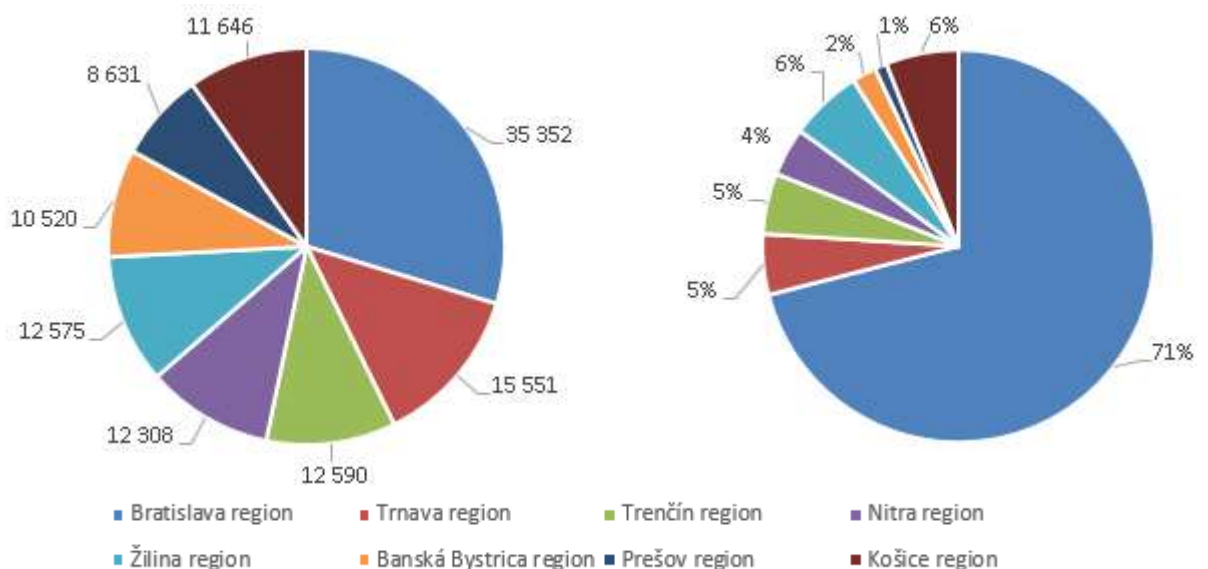

Fig. 8 GDP per capita in EUR and % of FDI inflow per region in 2015
Source: Statistical office of Slovakia

Figure 9 indicates rising trend of labour productivity which in year 2007 reached the highest value of V4 countries. The significant increase was enhanced by the iniciation of production in both car assembly plants, PSA Peugeot Citroën and Kia Motors, which brought and implemented efficient managent methods, new technologies and know-how. However, in order to keep the increasing trend of the productivity the government should

invest more in research and development as the current expenditure represents only 1.18 % of GDP (Eurostat, 2015) which is the third lowest within the EU.
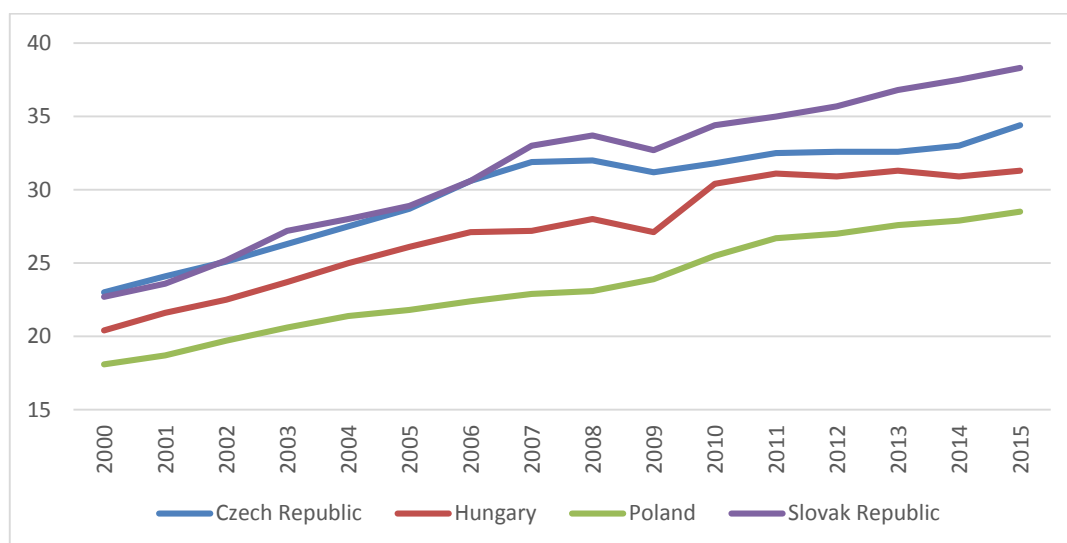

Fig. 9 Labour productivity (GDP per hour worked) in USD
Source: OECD

Increased foreign investment flow to the country brings more employment opportunities and so reduction of unemployment. Figure 10 illustrates that development of unemployment rate in Slovakia is characterised by several significant fluctuations. The highest value 19.2 % was recorded in 2001 when FDI inflow reached only 1.5 billion USD compared to year 2008 when FDI accounted for 4.642 billion USD resulting in the lowest unemployment rate of 9.56 % due to creation of almost 18 000 new working places by KIA Motors, Sony, Samsung and their subcontractors. In addition, according to Investment Monitor report (2016) Slovakia currently rank tenth within Europe in the number of jobs created by foreign investments.
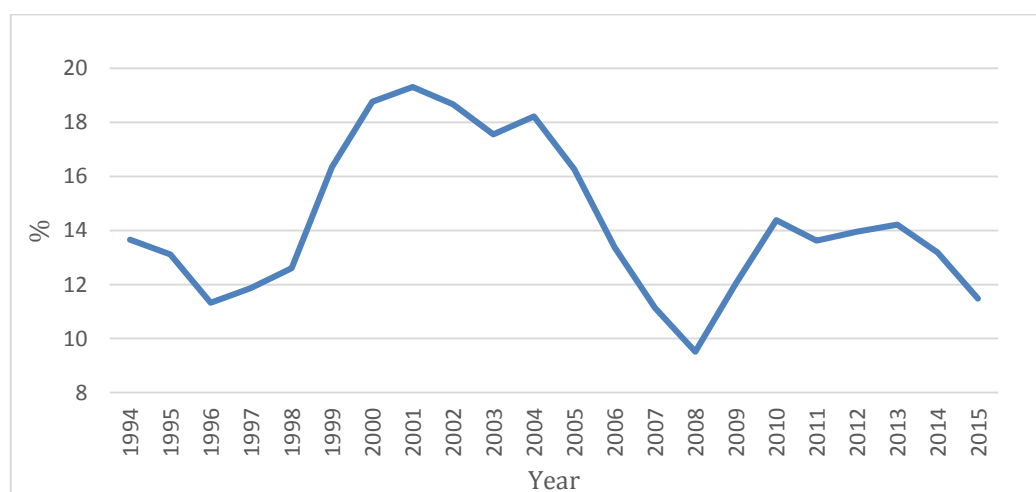
Fig. 10 Unemployment rate in % 1994-2015
Source: OECD

Another positive aspect of FDI is penetration to new markets and so increase of overall export. Top three biggest exporters are multinational companies namely Volkswagen Slovakia, Kia Motors, Samsung operating in automotive and electronics industries which currently represent 59 % of overall export (Statistic office of Slovakia, 2015).

Negative aspect of FDI stems from investment incentives provided to multinational companies which disadvantage local producers and can lead to formation of dual eonomy. Therefore the government should support also domestic producers, who are compared with foreign companies, not so financially strong.

5 Methodology

The aim of the following part is to specify the method as well as model and variables used for an empirical analysis of FDI determinants in Slovakia

5.1 Time series regression

Research papers written so far examining determinants of FDI inflow use different methods. One of the most popular is Gravity model approach employed for example by Zwinkels. Beugelsdijk (2010) or Bergstrand and Egger (2007) which is characterised by including variables such as country´s income and distance. However. in this thesis. times series regression using Ordinary Least Square method is applied based on the study conducted by Pantelidis and Paneta (2016) that have identified key factors influencing FDI inflows to Greece. Based on the literature review variable Labour productivity was added to original equation since it was found as an important FDI determinant.
The equation of this study is stated as follow:

$$FDI_t = f(GDP_t + REER_t + ULC_t + INF_t + TS_t + IR_t + OP_t + TR_t + LP_t + E_t)$$
Representing:

FDI_t	Foreign Direct Investment infow in Slovakia
GDP_t	Gross domestic product per capita
$REER_t$	Exchange rate
ULC_t	Unit labour cost
INF_t	Telephone lines per 100 persons proxy for Infrastructure
TS_t	Number of patents proxy for Technological skills
IR_t	Interest rate
OP_t	Openness of the economoy
TR_t	Tax rate
LP_t	Labour productivity
E_t	Dummy for Slovak participation in Eurozone

Detailed description of above mentioned indicators is stated in the next part 5.2 Data description.

Variables as well as model are analysed through series of econometrical and statistical tests executed by econometric software Gretl. Applied tests include: Test of significance of the model parameters. RESET test for correct model specification. ANOVA table. Non-linearity tests. Correlation coefficient analysis. Durbin-Watson test. Breush-Pagan test and Normality test.

5.2 Data description

Data are collected for the period ranging from 1995 to 2015 because of unavailability of data for years 1993. 1994 and 2016. Based on the literature review and already mentioned study by Pantelidis and Paneta (2016) variables that are examined are as follows:

Dependent variable:
Inward foreign direct investment in Slovakia in millions of USD collected from United Nations Conference on Trade and Development (UNCTAD) database.

Independent variables:
Gross Domestic Product per capita in USD obtained from Organisation for Economic Co-operation and Development (OECD) is used as a proxy for host country´s market size and growth potential. There is expected positive correlation with FDI inflow as large markets represent higher demand for investor´s goods and services and thus investment returns.

Real Effective exchange rate index (REER) data come from The World Bank database, examining exchange rate of Slovak crown against US dollar till 2009 and after Euro against US dollar. It is hard to predict effect of REER on inward FDI. In case of export-oriented MNE depreciation of the host country currency enhances FDI inflow. On the contrary, if the MNE aims to serve host country market only appreciation of host country currency attracts foreign investments because of higher purchasing power of domestic consumers.

Unit labour cost in Slovak Koruna till 2009 and after in Euro. Data are drawn from European Central Bank database. Since high unit labour cost can result in less inflow of FDI negative sign is expected.

Infrastructure represented by number of fixed telephone subscriptions per 100 inhabitants taken from The World Bank database serves as proxy for Information, Communication & Technology level (ICT). The Higher the level of ICT the higher the attractiveness of country for FDI.

Technological skills approximated by the number of patent applications obtained from The World bank database. Positive correlation is expected since multinational companies prefer to invest in countries which are able to create technological resources.

Real Interest rate in percents drawn from OECD database. Low interest rates enhance investments made by local sources of capital while high interest rate leads to investments financed by foreign investors. Thus positive correlation between FDI and interest rate is probable.

The openness of the economy explained by Rate of openness specified as sum of exports and imports to GDP taken from The World Bank database. The higher the rate the larger the influence of the openness on the FDI inflow.
The tax rate on corporate profits in percents obtained from World Integrated Trade Solutions (WITS). The higher the tax rate the less FDI entering the country.

Labour productivity measured by GDP per hour worked expressed in USD. Data is provided by OECD database. Positive effect of labour productivity on FDI is expected since high labour productivity results in higher profit.

The accession of Slovakia to Eurozone is examined using dummy variable having value 0 from 1995 till 2009 after Euro adoption value 1. Being a member of Eurozone positively affects FDI as common currency simplifies the cross-border flow of financial capital among Eurozone countries.

6. Development of the determinants in the Slovak economy

6.1 Matket size and GDP growth

Fig. 11 GDP growth (annual %) in Slovakia 1993-2015
Source: The World Bank

As Fig. 11 shows increasing trend of GDP growth after formation of Slovak Republic in 1993, however, positive values were reached by expansive fiscal policy of then then government at the expense of increasing public debt and deficit in public finance. In fact, in the long term perspective, the growth had a deformational consequences on the Slovak economy. In 1999 GDP growth dropped as a result of austerity measures being a part of restructuring process introduced by new government. Tax reforms, measures and open policy towards privatisation resulted in improved business climate and so inflow of foreign investmets. Financial capital, new technologies, know-how, effective managerial methods coming from abroad were driving forces of economic growth. In 2007 the level reached 10.37 % representing the highest percentage of all the EU member countries. Financial crisis and related economic recession in 2009 negatively impacted Slovak economy owing to fall in foreign demand resulting in decrease in Slovak exports, production, employment and domestic demand. After the crisis Slovak economy recovered quickly and since then it has been recording annual GDP growth rates of 2.8% on average. (Economic growth in Slovakia report, 2015).

6.2. Exchange rate and interest rate

Till the year 2000 monetary policy of National Bank of Slovakia (NBS) was characterised by restrictive measures owing to macroeconomic development of the country. High key rates reflected in lower liquidity of commercial banks which had to provide credits and receive deposits at higher interest rates.Till 1998 the priority of NBS was the development of exchange rate which was anchored to basket of other currencies. After the year 2000 the monetary policy became looser resulting in gradual decreasing of discount rate. Stricter fiscal policy and slow growth of consumption works for the loose fiscal policy resulting in a reduction of demand, import and inflation pressure. During the period from 2001 to 2006 the key interest rates dropped in average by 5 %. In 2006 NBS wa forced to increase the rates due to cost push inflation pressure. In 2009 by joining the Eurozone Slovak Crown was officaly replaced by the Euro and and the role of monetary policy maker was taken over by European Central Bank which sets a level of interest rates based on the economic development of the Eurozone member countries.
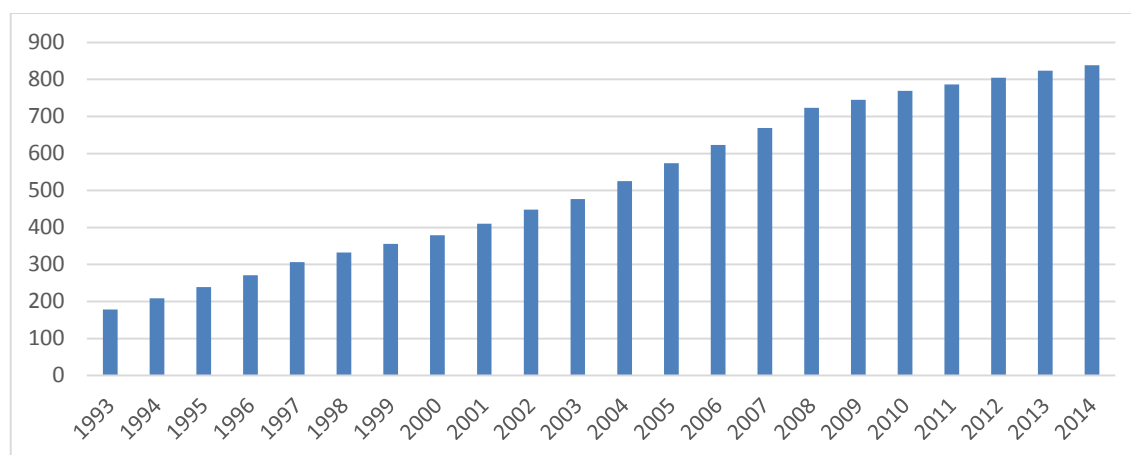
6.3 Labour productivity

Fig. 12 Development of average nominal monthly wage in EUR 1993-2014
Source: Statistical office of Slovakia

Since 1993 the average mothly wage has rosen from year to year as illustrated byFig. 12. The increase can be ascribed to a high inflation experienced during transition period from a planned to a market economy. Another reason is increasing trend in a minimum nominal monthly wage which rose from 327 EUR in 2012 to405 EUR in 2016. Labour productivity growth, higher number of university graduates, scarcity of specialists in demanding sectors like IT or manufacturing and a low unemployment rate, all of these move the nominal wages upward reaching level of 838 EUR in 2014 Hovewer, economists are concerned as higher wages may decrease attractiveness of Slovakia among foreign investors and thus decrease the inflow of investments.
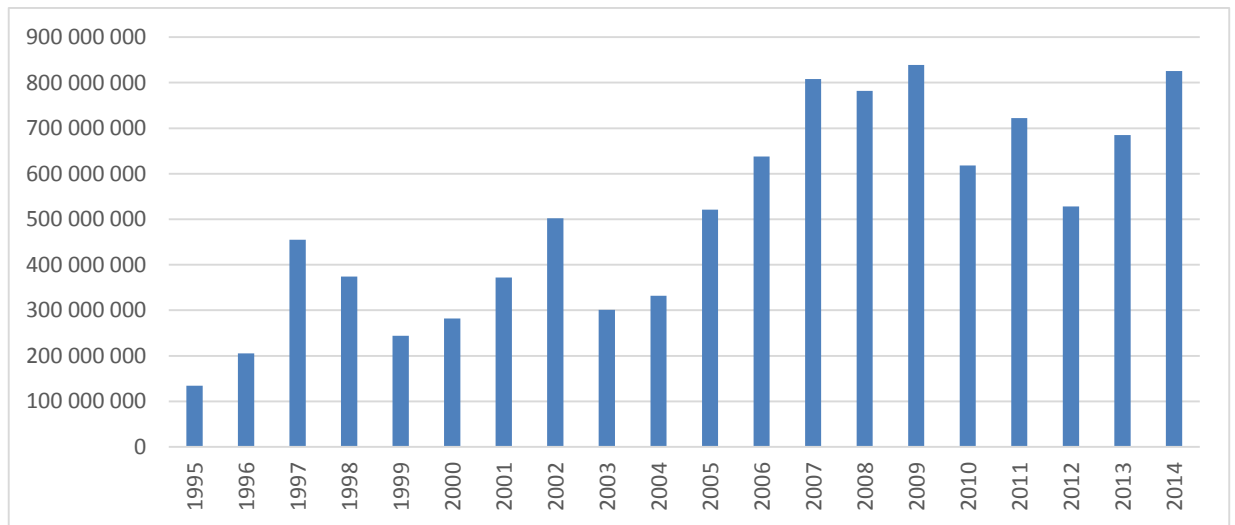
6.4 Infrastructure

Fig. 13 Investment in transport infrastructure in million EUR 1995-2014
Source: OECD

As stated above infrastructure plays a significant role in attracting foreign investments. When observing development of infrastructure in Slovakia via investments made (Fig.13) we can see that overall expenditures reached low value of 134 million EUR in 1995 what was reflected in a poor state and insufficient network of railways and roads and was a main obstacle in an integration of the country in the world economy (Martin and Rogers, 1995). The increase in the infrastructure expenditures in 1997 can be ascribed to expansive fiscal policy of then then government with the aim to stimulate the economy in a pre-election period. Consequent drop in 1998 is related to reforms and austerity measures of newly elected government. Positve impact on development of infrastructure had an accession of Slovakia to the European Union in 2004. As can be seen from the graph investments were growing from year to year till 2009 due to financial resources coming from Eurofonds. Constructions financed by capital from the EU included electrification of the entire railway network, construction of new express ways and high ways as well as modernisation of airports. With increasing investments the quality improves too as indicated by Doing Business report conducted by World Bank. In 2007 Slovak infrastructure got score of 2.68 while in 2016 achieved 3.24.
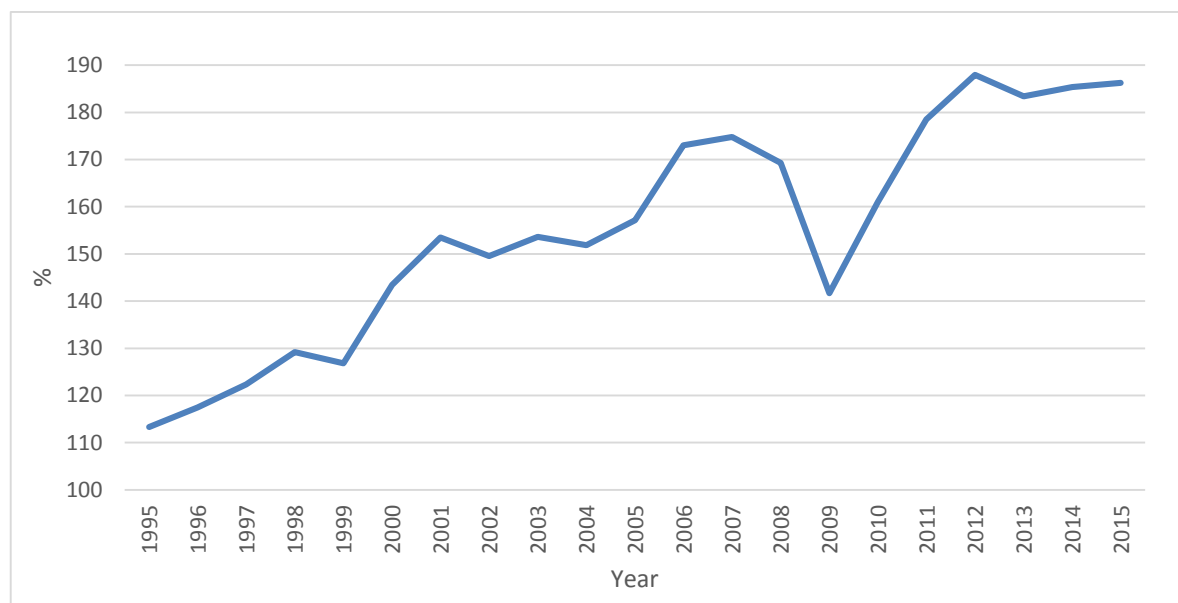
6.5 Trade openness

Fig. 14 Openness of trade in % in Slovakia 1995-2015
Source: World Bank

After the year 1993, international trade in Slovakia was evolving positively as Fig. 14 depicts. A slight surplus of trade balance in 1994 was caused by devaluation of Slovak Crown, resulting in cheaper exports and price advantage of Slovak exporters in foreign markets, as well as by introduction of 10 % import surcharge in 1994. Till 1998 a growth in imports was enhanced by increasing domestic demand while exports was provoked by depreciation of Slovak Crown after elimination of fixed exchange rate regime in 1998. Years 1999 and 2000 were characterised by introducing stabilizing measures by new government with the aim of enhancing export activity and reduce imports inflow and domestic demand. Hovewer, the positive effects of such steps were just temporary. Therefore, the part of restructuring process in 2002 was the improvement of business climate to enhance domestic supply and inflow of foreign investments, especially export-oriented ones. From the year 2004 the trade openness experienced an upward tendency as Slovakia joined the EU. Trade liberalisation had a positive impact on increased imports and exports as well as on the inflow of FDI. Value of trade opennness in 2007 was the highest (174.8 %) since 1993, provoked by exports of automotive industry representing 39.7 % share on total exports (Statistical office of Slovakia). A significant fall in 2009 caused by global financial crisis contributed to the decrease of imports and exports and so fall in trade openness indicator by 28 %. Hovewer, in 2013 trade openness achieved 187 % which made Slovakia the third most open economy in the EU (Poštová banka report, 2014)
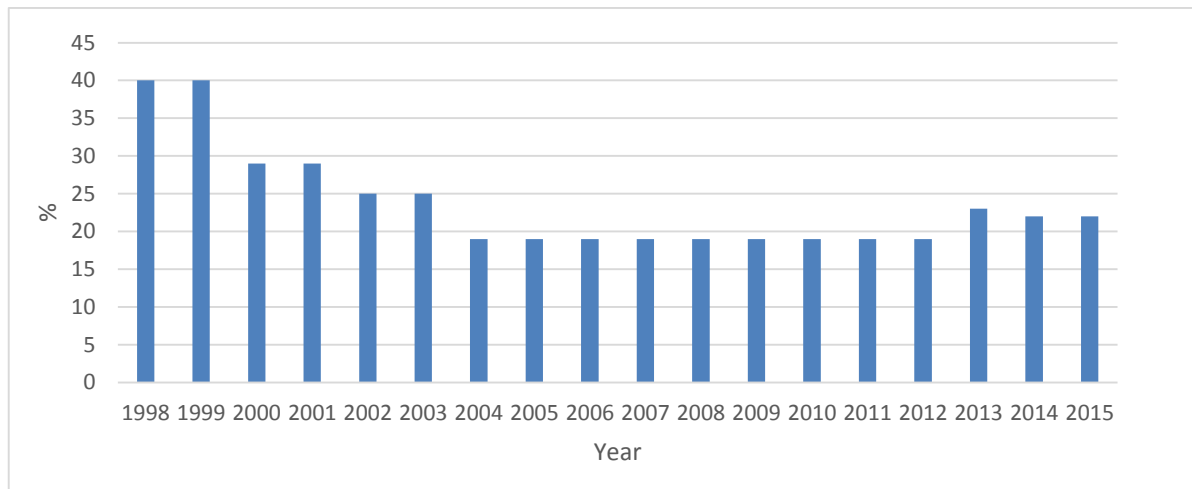
6.6 Tax

Fig. 15 Corporate income tax rate in % Slovakia 1996-2013
Source: OECD

Tax system in Slovakia experienced many changes since 1993 and so did the corporate income tax (CIT). From 1993 the CIT has a decreasing tendency till 2011 (Fig. 15). In 1999 the rate dropped from 40 % to 29 % and later in 2002 to 25 %. Tax reform in 2004 implemented flat rate of 19 % for both physical and legal persons. Moreover, taxation of dividens and share profits were abolished to avoid double taxation. All the changes were made with the aim of simplifying tax system and to improve business conditions in the economy. In 2013, CIT rose to 23 % owing to deficit in state budget which the government wanted to reduce by higher tax revenues. A year later the CIT changed once again to 22 %.
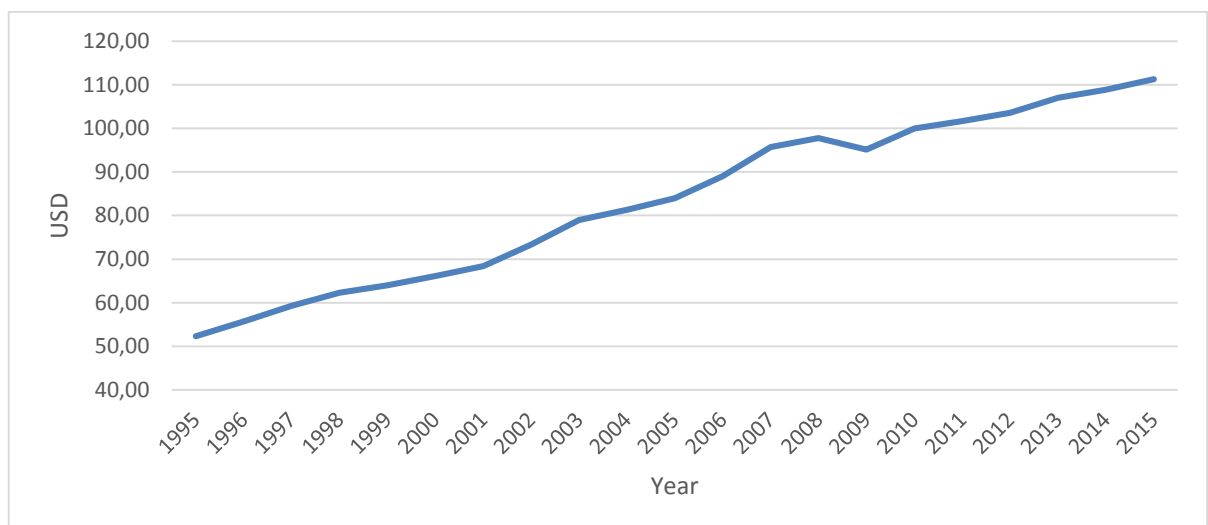
6.7 Human labour and productivity

Fig. 16 Labour productivity per hour worked in USD in Slovakia 1995-2015
Source: OECD

As the Fig. 16 depicts labour productivity progressively increased since 1995. Low values till 1999 was caused by lack of capital, innovations, efficient production methods. Increasing flow of FDI since 2001 positively impacted the labour productivity owing to new technologies brought by MNCs. Due to financial crisis in 2009 labour productivity dropped but interestingly it was still higher than in V4 countries. According to Unicredit Report (2014) it could have been caused by a higher pressure put on domestic exporters who could not benefit from currency devaluation as neighbouring countries, therefore they focused on increasing productivity to be able to compete on foreign markets. Moreover, Slovakia keeps the leading position in labour productivity till now. Growing education of labour force is another reason behind the productivity growth. Sario report (2016) highlights that 91.2 % of Slovak labour force are graduates either of secondary schools or universities which is one of the highest percentage in Europe. Furthermore, MNCs also appreciates good language skills of Slovak workers.

6.8 Technological skills
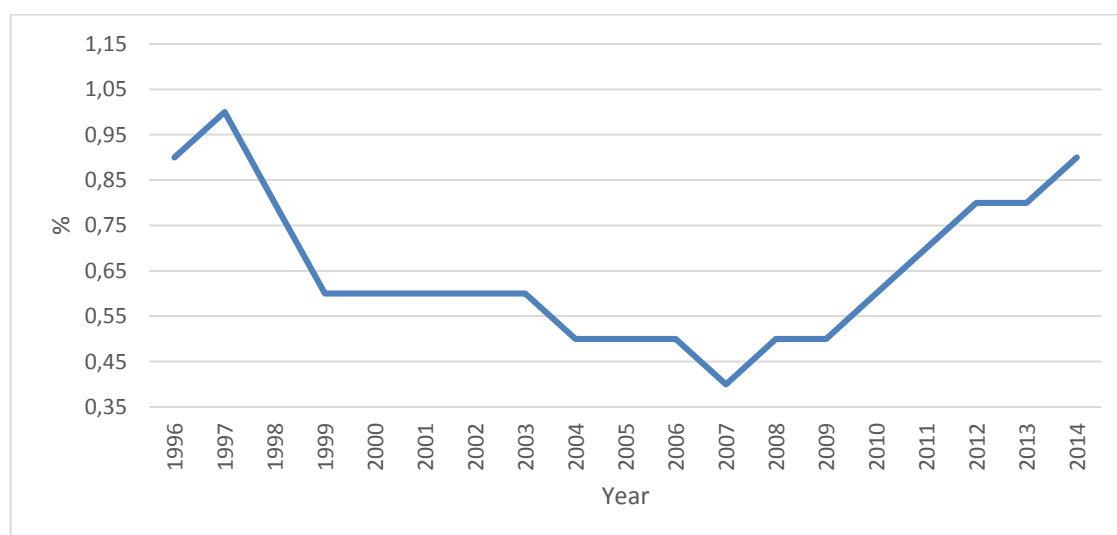
Fig. 17 Expenditures on R&D (% of GDP) in Slovakia 1996-2014
Source: OECD

The graph illustrates expenditures on research and development in Slovakia over the years 1996-2014. As can be observed the highest value of 1% of GDP was achieved in 1997 owing to financing from state-owned firms operating in manufacturing industry. Hovewer due to privatisation R&D experienced a significant fall in funding. In 2007 and 2008 expenditures reached only 0.40 % of GDP representing figure far below the EU average. Therefore Slovakia got a nickname of 'assembly plant' as no higher value added was produced. The expenditures grew after 2009 thanks to funding from the EU and the support from private sector mainly foreign firms. In the last years, the percentage grows but still lags behind EU average of 2%.

7. Empirical analysis

In this part econometric and statistical analysis are performed by means of econometric software Gretl to examine the influence of particular determinants on FDI inflow.

7.1 Model specification

As stated before. the model takes the following form with expected signs:

$$FDI_t = f(GDP_t + REER_t + ULC_t + INF_t + TS_t + IR_t + OP_t + TR_t + LP_t + E_t)$$
$$\quad\quad\quad + \quad\quad - \quad\quad + \quad\quad + \quad\quad + \quad\quad + \quad\quad - \quad\quad + \quad\quad +$$

7.2 Ordinary least square method

Model determinants were tested using OLS method. Final model was specified after elimination of independent variables that were found not statistically significant or suffered from multicollinearity in preliminary estimations, namely Unit labour cost and Real Effective Exchange rate.

Results of the regression after multicollinearity correction are as follows:

Tab. 1 OLS model

Model: OLS. using observations 1995-2015 (T = 21)
Dependent variable: FDI in millions

	Coefficient	Std. Error	t-ratio	p-value	
const	24562.6	7836.92	3.1342	0.0086	***
GDP	0.70026	0.358644	1.9525	0.0746	*
Patent applications	17.3237	7.68291	2.2548	0.0436	**
Interest rate	346.439	135.771	2.5516	0.0254	**
Corporate income tax	−457.283	94.6351	−4.8321	0.0004	***
Euro as a currency	3418.94	1159.13	2.9496	0.0122	**
Openess to trade	52.4451	28.0959	1.8667	0.0866	*
Labour productivity	393.77	147.473	2.6701	0.0204	**

Source: Gretl

As showed by the model all variables were found significant since p-value was lower than $\alpha = 0.05$. In addition. signs of estimated parameters are in line with theoretical expectations.

Linear function of FDI inflow has the form:

FDI = 24562.6 + 0.70026 GDP + 17.3237 INF+ 346.439 IR - 457.283 TR + 3418.94 E + 52.4451 OP + 393.77 LP + ε

Regresssion coefficients can be interpreted in the following way:

When the GDP per capita increases by 1 unit and other variables remain constant it will cause 0.70026 unit change in FDI inflow. Expected change of 17.3237 in FDI inflow corresponds to unit change in Technological skills under condition that other variables remain constant. When interest rate increases by 1 unit and other variable remain constant it will result in 346.439 unit change in FDI inflow. Increase of Corporate income tax by 1 unit will cause −457.283 unit change in FDI inflow if other variables remain constant. Participation in the Eurozone results in 3418.94 FDI inflow. When Openess to trade increases by 1 unit. and other variables remain constant. it will cause 52.4451 unit change in FDI inflow. Expected change of 393.77 in FDI inflow corresponds to a unit change in Labour productivity under condition that other variables remain constant.

7.2.1 Coefficient of determination and R^2 adjusted

Coefficient of determination measures the proportion of the variation in dependent variable explained by independent variables of a linear regression model and gives information about a goodness of fit of a model. Value of R^2 lies in the interval <0;1> where value equal to 1 indicates perfect model fit whereas value close to 0 signifies inability of a model to interprete the variability in dependent variable by independent variables.

Since R^2 increases even when useless or unjustified explanatory variables are included in the model R^2 adjusted is used instead as it is corrected for degrees of freedom and thus increases only when statistically significant variables are added to the model.

The value of R2 in our model is 0.852869. which means that the model explains approximately 85.30 % of the variability. The value of R2adj is 0.754782. which explains approximately 75.50% so it holds that R2adj ≤ R2. We can say that we got a good fit.

7.2.2 Ramsey´s Reset test

Ramsey´s Reset test is used to verify a correctness of the function form and model specification.

The hypotheses are as follows:

H_0: model is correctly specified.

H_1: model is not correctly specified.

Tab. 2 Reset test

Test	Statistics	P-value
RESET	0.244104	0.78794

Source: Gretl

As shown by Gretl output p-value 0.78794 is greater than level of significance 0.05 so the null hypothesis is not rejected. We can conclude that model is correctly specified.

7.2.3   Non-linearity test

Non-linearity test verifies correctness of the used model form.

Hypotheses are as follows:

H_0: correct model form.

H_1: incorrect model form.

Tab. 3 Non-linearity test

Test	Statistics	P-value
Squares	10.9763	0.139657
Logs	9.52459	0.217152

Source: Gretl

Since p-value for both squares and logarithms is greater than 0.05 null hypothesis is not rejected indicating correct model form used.

7.2.4   Heteroscedasticidy testing

Heteroscedasticidy occurs when variance of the error term changes across observations or group of observations having negative impact on the results of OLS method.

In order to detect heteroscedasticity White´s test and Breusch-Pagan tests were applied.

Hypotheses are identical for both tests:

H_0: error term is homoskedastic

H_1: error term is heteroskedastic

Tab. 4 Heteroskedasticity tests

Test	Statistics	P-value
White´s	13.3988	0.571526
Breusch-Pagan	3.229500	0.919140

Source: Gretl

P-value of both tests is above significance level 0.05 which confirms constant variance of error term and so homoskedasticity.

7.2.5 Serial correlation testing

When observations of error terms correlate with each other we talk about serial correlation or autocorrelation.

Since corellated error terms are often found in time series regression models. which is our case. we have decided to apply Durbin-Watson test for detecting possible autocorrelation.

Durbin Watson test examines only existence of 1-order serial correlation in the error term. Ideal value of DW statistic test is 2 representing absentism of serial correlation. Our model reaches value 2.22 which indicates very slight negative correlation.

Tab. 5 Durbin-Watson test

Test	Statistics	P-value
Durbin-Watson	2.22	0.108603

Source: Gretl

7.2.6 Normality testing

In order to examine normality of error term Chi-quadrat test is used with following hypotheses:

H_0: normal distribution of error term

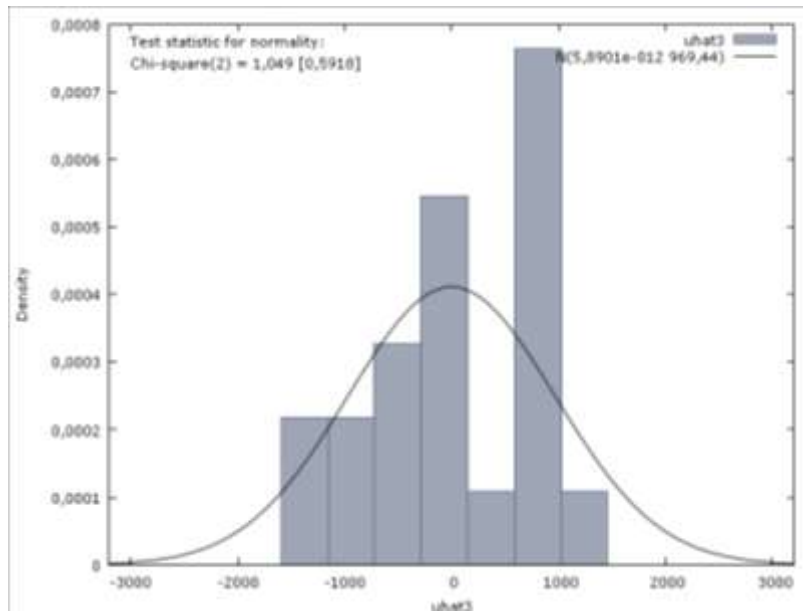H_1: not normal distributio of error term

Fig. 18 Normality of residual

P-value 0.5918 is greater than significance level 0.05 resulting in not rejection of null hypothesis. To conclude. residual has normal distribution.

7.2.7 Analysis of variance

Hypotheses are set as:

H_0: overall model is not statistically significant

H_1: overall model is statistically significant

Tab. 6 ANOVA table

	Sum of squares	Degrees of freedom	Mean square
RSS	6.53733e+007	8	8.17166e+006
ESS	1.12777e+007	12	939810
TSS	7.6651e+007	20	3.83255e+006
F empirical 8.17166e+006 / 939810 = 8.69501 F critical 1-α;(1.) F(8. 12) 2.8486 p-value 0.0006			

Source: Gretl

Results of ANOVA table show higher value of F empirical compared to F critical and value of p below significance level 0.05. Based on the results of these indicators we reject null hypothesis indicating model insignificance meaning that variables and function form are correctly specified.

7.3 Discussion

Results of empirical part shows no significance of unit labour cost, real effective exchange rate and infrastructure FDI inflow in Slovakia.

As previously dicscussed in literature review part, infrastructure was found by most of researches like Demirhan and Masca (2004) orJordaan (2004) as an important factor attracting foreign investments. However, the model showed insignificance of infrastructure which can be explained by findings of Wheeler and Mody (1992) arguing that quality of infrastructure affects FDI inflow mainly in developing countries than in developed ones due to comparable level of infrastructure development and thus other determinants such as investor friendly tax conditions. market size. openess to trade have more significant weight on investor´s decision.

Insignificance of unit labour cost variable can be explained by current shifting trend of FDI towards skill and knowledge-intensive manufacturing and services. This pattern can be seen also in Slovakia where foreign investments in service represent around 60 % and in manufacturing sector around 33 % of all FDI in 2014. (NBS report). The competitive advantage of low labour costs is becoming less important as a locational determinant of MNE. As proved by the model labour productivity gains more relevance in attracting FDI in Slovakia than labour cost.

Empirical FDI studies shows mixed influence of real exchange rate on FDI inflow. Some resesearch papers rang real exchange rate among important FDI determinants (Chakrabarti. 2001; Mukhta.2014) others like Dewenter who conducted study about foreign acquisitions of US firms found an insignificant relationship between the level of exchange rate and foreign investments. The reason behind insignificance of real exchange rate in empirical analysis could be related to the fact that largest share of foreign investments in Slovakia come from Eurozone member countries namely The Netherlands. Germany and Austria. Having the same currency real exchange effect on inward FDI vanishes.

8 Conclusion

The main objective of the thesis was to determine factors influencing inflow of foreign direct investments into Slovakia. Results of the empirical analysis were for the most part consistent with former researcher papers discussed in the first part of the thesis. GDP growth,openness to trade, technological skills, labour productivity, interest rate and participation in the Eurozone were proved to have positive effect on inward FDI, whereas corporate income tax seem to deter foreign investments. Moreover, unit labour cost, real effective exchange rate and infrastructure seem not to have any impact on inward FDI.

Partial aim was to analyse the development and the structure of FDI inflow into Slovakia. The lowest level of FDI was recorded during the period 1993-1999 when the investment climate of newly formed country was characterised by political and economic instability resulting in investment cautiousness from the side of multinational companies. The situatio changed thanks to pro-privatisation policies introduced by the new government. Improved business conditions attracted mainly companies operating in automotive industry making Slovakia one of the biggest car producers in the world. The growth continued till 2008 when the financial crisis hit a global economy and so the flow of investments into Slovakia. Regarding the structure, the biggest flows of financial capital reache mainly financial and insurance sector followed by automotive industry. Nowadays, a new trend of financial inflow to sectors with higher value added was indentified beign a positive change for the country mainly due to positive impact on a technological development of the country.

Another partial aim was to examine the effects of FDI on the Slovak economy. Foreign investments were found to significantly contribute to GDP growth which is one of the highest in the EU. In addition, labour productivity, owing to new technologies implemented by MNC, has increased notably being the highest of V4 countries. Moreover, decreased unemployment and increase in exports are other important benefits resulting from the inflow of foreign capital.

To sum up, foreign investments are one of the most important factors of economic growth in Slovakia. Therefore the government should concentrate on building attractive business environment in order to draw inflow of capital which is inevitable for the good functioning of the economy.The biggest improvement should be done in the field of research and development and education where Slovakia considerably lags behind the EU countries and in infrastructure as well to reduce regional disparities in FDI inflow.

9. Resources

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10. List of figures

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12 List of abbreviations

CIT	Corporate Income Tax
EU	European Union
EUR	Euro
FDI	Foreign Direct Investments
GDP	Gross Domestic Producst
IMF	International Monetary Fund
IT	Information technologies
MNC	Multinational corporation
MNE	Multinational enterprise
NBS	National Bank of Slovakia
OECD	Organisation of Economic Development
R&D	Research and Development
REER	Real effective exchange rate
SARIO	Slovak Investment and Trade Development Agency
UNCTAD	United Nations Conference on Trade and Development
USD	US Dollar

Enclosures

A Econometric model data

Tab. 7 Model data

Year	FDI	GDP	REER	Unit Labour cost	Telephone lines
1995	2587,00	8640,00	48,67	0,35	20,90
1996	370,00	9361,00	49,19	0,38	23,20
1997	231,00	10061,00	52,01	0,36	25,90
1998	927,00	10602,00	52,74	0,41	28,60
1999	627,00	10702,00	51,36	0,40	30,70
2000	2720,00	11323,00	56,48	0,42	31,50
2001	2275,00	12398,00	57,54	0,42	28,90
2002	5865,00	13290,00	59,16	0,48	26,00
2003	2976,00	14123,00	67,10	0,51	24,00
2004	4029,00	15170,00	73,65	0,55	23,20
2005	3110,00	16572,00	75,62	0,59	22,20
2006	5803,00	18813,00	80,15	0,62	21,60
2007	4017,00	21071,00	88,88	0,61	24,20
2008	4868,00	23575,00	97,25	0,67	23,80
2009	-6,00	22949,00	103,73	0,70	22,50
2010	1770,00	24833,00	100,00	0,71	20,20
2011	3491,00	25836,00	101,18	0,73	19,40
2012	2982,00	26654,00	100,72	0,75	17,90
2013	-604,00	27900,00	102,16	0,77	17,70
2014	-331,00	29021,00	101,94	0,85	16,80
2015	803,00	29915,00	98,53	0,90	15,90

Source: UNCTAD, OECD, World Bank, ECB

Tab. 8 Model data

Patent applications	Interest rate	Openess to trade	Corporate income tax	Euro as a currency	Labour productivity
269,00	6,33	113,31	40,00	0,00	52,30
195,00	9,06	117,44	40,00	0,00	55,70
224,00	13,15	122,34	40,00	0,00	59,30
213,00	15,40	129,18	40,00	0,00	62,30
213,00	12,85	126,82	40,00	0,00	64,00
236,00	5,04	143,47	29,00	0,00	66,10
246,00	5,85	153,51	29,00	0,00	68,40
259,00	6,90	149,52	25,00	0,00	73,30
210,00	5,00	153,60	25,00	0,00	79,00
215,00	5,00	151,87	19,00	0,00	81,30
155,00	3,50	157,17	19,00	0,00	84,00
193,00	4,40	173,01	19,00	0,00	89,00
239,00	4,50	174,82	19,00	0,00	95,70
167,00	4,70	169,32	19,00	0,00	97,80
176,00	4,70	141,67	19,00	1,00	95,10
234,00	3,90	160,97	19,00	1,00	100,00
224,00	4,40	178,50	19,00	1,00	101,70
168,00	4,60	187,98	19,00	1,00	103,60
184,00	3,20	183,44	23,00	1,00	107,00
211,00	2,10	185,35	22,00	1,00	108,90
269,00	0,90	186,26	22,00	1,00	111,30

Source:OECD, World Bank