

# FDI INFLOWS IN TIME OF CRISIS - PANEL DATA ANALYSIS OF FDI INFLOWS TO THE SELECTED EU MEMBER STATES

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## **Abstract**

*The purpose of his article is to examine the relationship between FDI and national economic policy in the time of crisis. We will test this subject on the following EU member states: Portugal, Italy, Ireland, Greece, Spain, Baltic and CEE countries, Romania, Bulgaria and Croatia. They make the European Union periphery (with the exception of Italy) and all of them with the exception of Italy (and Slovenia up to 2008) rely heavily on FDI attraction in order to foster economic growth. We assume the existence of certain differences between these groups of countries, which are caused by the possibility to accommodate the effects of international financial crisis through autonomously run monetary and fiscal policy. In order to test this empirically we used panel data econometric analysis. Analysis has shown that with adequate economic policy, and membership in larger regional economic integrations, it is possible to ease negative influences of financial crisis and increase share of FDI in GDP. GDP growth rate (which in our model stood as a proxy for market demand) is also*

*one of the essential ingredients of FDI attraction. On the other hand, economic crisis (manifested as negative GDP growth rate) negatively influences FDI attraction.*

**Key words:** FDI, economic crisis, economic policy, PIIGS, Baltic States, CEE Countries, Panel data analysis

JEL Classification: H12, O52, C8

## INTRODUCTION

One of the usual ingredients of economic growth and indicators of openness, as well as desirability of a country as a partner in the international trade are FDI (foreign direct investment). Usually FDI are defined as a type of international investment by residents of one country with the aim of establishing a lasting interest in enterprises within the economy of another country. Also, FDI is viewed by many economists to be one of the main pillars of globalization (de Soysa, 2003) and even John Stuart Mill once famously observed that “the opening of foreign trade . . . sometimes works a sort of industrial revolution in a country whose resources were previously underdeveloped” (quoted in de Soysa, 2003, p. 20).

Global FDI flows showed consistent and rapid growth between 2004 and 2007. During this period, the global FDI grew by 155%, from \$717.7 billion in 2004 to \$1,833.3 billion in 2007. 68.1 % of the FDI went to the developed economies such as United States and Canada, while EU region attracted almost two thirds of the total FDI inflows to the developed countries (UNCTAD, 2008) & (World Investment Report 2008.). In 2008 and 2009 the world economy suffered the deepest global financial crisis since The Great Depression. Countries around the world were hit by major declines in the rate of BDP growth and employment. In 2008 GDP in industrial countries fell by 4.5%, and by the end of 2008 average real GDP growth in emerging economies dropped from 8.8% in 2007 to 0.4%. The unemployment rate rose to 9 percent across OECD economies, and reached double digit numbers in many industrial and developing nations. The volume of international trade plummeted by more than 40% in the second half of 2008. In 2008, multinationals foreign affiliate sales fell by 4.6%, in sharp contrast to the 24% growth rate the year before, after global FDI flows reached a historic record of \$1.9 trillion in 2007. (UNCTAD, 2009).

As Kumo points out: “In 2010, FDI flows into developed economies contracted by 7% compared to 2009. The European Union was the worst hit with FDI inflows contracting by 20% in 2010. Among the developed economies, Japan saw the biggest decline in FDI inflows in 2010 with FDI contracting by a whopping 83.4% due to major disinvestments. With 66.3% contraction in FDI, Ireland, whose economy was ravaged by the financial crisis, witnessed the second highest FDI contraction among the developed economies due primary to uncertainties about sovereign debt. FDI inflows to Germany and France declined marginally. Unlike other major industrialized nations, the United States, the world’s largest economy, enjoyed a robust expansion in FDI inflows in 2010. FDI flows into United States increased by 43.4% in 2010”. (Kumo, 2011)

Eurostat, on the other hand, points out that in 2007, EU foreign direct investment flows to the countries outside the EU reached the record level of EUR 530.7 billion, mainly as a result of major cross-border mergers and acquisitions and reinvestment of earnings. „In 2008, the reinvested earnings paid to extra-EU investors dropped by 50% and continued to decline in 2009. Equity capital — mainly mergers and acquisitions activity — showed a similar trend, dropping by one third in 2008 and continuing to go down, resulting in EUR 263.3 billion EU outward investments in total in 2009. Income from investments abroad has also declined from the record level of 2007, meaning that the rate of return on EU outward stocks fell to its lowest level since 2004 (Eurostat.com). The European Union is the world’s largest investor abroad. Even if the importance of the emerging markets is growing the EU remains the largest recipient of FDI. “Within the EU, FDI flows are a crucial element for the consolidation of the internal market, while investments to and from the rest of the world ensure that the EU is well positioned in world markets and well integrated in worldwide technology flows. ... Currently, within the EU, the inward FDI stock is still largely concentrated in the EU-15 Member States. These offer good market access, scope for linkages to strong industrial bases, and well-educated labour forces. However, in the years before the crisis, the most dynamic part of FDI flows within the EU was between the EU-15 and the new Member States. As several of the new Members States have been hard hit by the crisis, this trend has partly been reversed in the last two years.” (European Commission, 2011)

One of the first signs of economic crisis is lower levels of international trade and FDI flows, so the aim of this paper is to examine the relationship between FDI and national economic policy in the time of crisis. By joining the EU and

the Eurozone some participating countries gave up certain parts of their political and economic sovereignty, while others for various reasons didn't participate in the Eurozone. We assume the existence of certain differences between those groups of countries, which are caused by the possibility to accommodate the effects of international financial crisis through autonomously run monetary and fiscal policy. We expect to find positive correlation between low inflation, low public debt, higher trade openness, GDP growth rate, EU membership and FDI inflows to our selected countries. We have selected countries in our study based on the fact that all of them with the exception of Italy base their economic development to a higher or lesser extent on FDI attraction since they lack domestic capital to launch the virtuous cycle of economic growth and development. The countries can broadly be divided in three groups; first among them being PIIGS which is made of Portugal, Italy, Ireland and Spain. These are the "old" member states of EU. Countries in this group have been selected on the criteria that they have been the hardest hit by the economic crises. The second group, CEE, is made of newcomers from the Central Europe and Baltic and includes Slovenia, Hungary, Slovakia, Czech Republic, Poland, Lithuania and Latvia. All of these countries base their economic development on FDI attraction. Among them Baltic countries, Hungary and Slovenia were hardest hit by the economic crisis. Finally, the third group is made by the recent arrivals to EU - Romania, Bulgaria and Croatia (which has not experienced economic growth in 6 years). Although all of SEE countries pursue strategies for FDI attraction they have been less efficient in attracting FDI then countries from other two groups.

## FDI IN ECONOMIC THEORY

FDI is usually defined as a type of international investment by residents of one country with the aim of establishing a *lasting interest* in enterprises within the economy of another country. *Lasting interest* implies the existence of long-term relationship of direct influence on the management of investors' direct investments in selected companies. Direct investment includes the initial transaction between the two entities and all subsequent transactions between them and among affiliated enterprises, regardless of their formal status. Direct investment is considered to be established when an investor acquires at least 10% of ordinary shares or voting rights to foreign companies. Precisely because

of the contribution to the process of economic growth and development<sup>1</sup>, particularly in job creation, transfer of technology, managerial skills, increasing exports, productivity, and competitiveness in the global market, it is important to investigate those factors contributing to the choice of a country as a destination for foreign direct investment. Therefore it is necessary to pay special attention to institutional factors; legal system, justice system and domestic legislation (especially the part relating to the protection of property and taxes), as well as their stability and efficiency, absence of corruption, the size and market development and market mechanisms, quality of physical infrastructure, etc. They are largely influenced by public authorities, concerned with the creators and holders of economic policy, and their existence and quality often crucially influence the perception of a country as a desirable destination for foreign direct investment.

There are many ways to classify the different forms of FDI. Here we will describe some of them. The most obvious classification is by objectives of international investors, multinational corporations (MNC) when they establish foreign subsidiary;

#### 1. Resource seeking FDI.

From the historic perspective, that was the first sustainable FDI that came into being in the later part of the 19<sup>th</sup> century, and was dominant even during the years after the World War II (to 1950s). The logic of FDI investment was, and still is guided by location and climate. Investors usually want weak labour laws, few regulation of protection of environment and minimal tax burden (little or no corporate tax). Other factors in decisions on where to extract natural resources may include the quality of the infrastructure (both institutional and physical), abundance and accessibility of the raw materials, and the extent to which political officials are ready to deal favourably with foreign companies by providing good governance, favourable tax and regulatory policies, and the rule of law, not to mention low cost of labour and environmental practices. Investors' behaviour in this sector regarding the host governments and the way by which they treated "native" workers are infamous at best. United Fruit Company did much as it liked in El Salvador

<sup>1</sup> For further details see Borensztein et al. (1998) that, based on empirical analysis of FDI flows from 69 developed countries through the last two decades, emphasize the positive impact of FDI on technology transfer, provided that the destination country has an adequate level of human capital that enables its absorption.



(Chapman, 2007). This type of the FDI was very good for the outward FDI country, since the operations in the host country did not outsource jobs, did not compete with the investor country exports, and majority of raw materials were imported to the headquarter countries thus further fuelling their own economy. On the other hand, this type of FDI impact on the host country economy left much to be desired for. There were net foreign exchange earnings for the exports of raw materials, but what of the environmental damage, human/labour rights and concession prices? Were they fair or not? Mostly it depends on the local political elite motivation either for economic development or personal wealth increase.

## 2. Market-seeking FDI.

One of the reasons for this kind of investment was the potential for reducing the transportation costs, and making consumers feel more at ease with the “domestic” products rather than the imported ones. These FDI are generally made in rich countries, because these investors want customers for their products. Cohen points out that market-seeking FDI have the potential to provide more benefits to host countries than any other form of incoming direct investment (Cohen, 2007). These types of investment usually bring new employment, technologies, know-how, and business practices.

## 3. Efficiency seeking FDI.

The first reason for this type of FDI is the intention of investors to outsource some of its production to countries where cost of production is low. If these low wage countries have work ethic like say East Asian Tigers the outsourcing is usually very cost efficient in range of industrial and increasingly service products. The other reason for this type of FDI is the wish of investors to reap the benefits of economics of scale and by outsourcing to minimise the costs of production. These kinds of FDI are not welcomed by the labour union in the source countries since this type of FDI is widely perceived as exporting jobs, while on the other hand the consumers are supposedly benefiting from the cheaper price of imported goods. USA lead the way in this kind of FDI, particularly to Mexico, China and East Asia, while Japan followed suite with investments in East Asia, and Germany somewhat more shyly to the transitional countries of Central Europe. (More on

this in Cohen, 2007, p. 70; similar in: Agnew and Corbridge, 1995, p. 169, Rupert, 2000, p. 48)

#### 4. Strategic Assets- Seeking FDI.

The nature of this FDI is to bring more competitiveness to the multinational companies by acquiring assets of other companies in different countries. This type of FDI allows company to broaden its product offer, to enhance its existing products, to create new products or simply to swallow rival firms.

#### 5. Objective of pleasing the host country government.

Countries such as USA, France and UK have actively encouraged their companies to invest in the countries they view as important for their global political, economic and military reach. French companies invested in North African countries like Algeria and Tunis, once the tensions between France and these countries cooled of, and British companies were always showing a bit of a “colonial” preference by investing in the countries belonging to British Commonwealth. USA is clearly the only global superpower left with vested interest on every continent. After the end of the cold War in 1989 some “favoured” CEE countries received some of the FDI from USA, leading among them is Poland, which in the view of the strategic planners in Pentagon should become the leading American ally in the CEE Europe (Bandelj, 2008).

The second way to classify the FDI is by its role in the parent company global strategy. It is either horizontal or vertical. Horizontal FDI is when MNC transfers a part of its activity overseas in order to strengthen its global (or local) competitiveness. Vertical FDI has been growing since 1980s and the cause of its growth was the increased advanced in production technology and communications. The version of vertical FDI that appears most often is the division of the manufacturing process into segments in which various parts of a finished product are made by two or more subsidiaries in two or more countries anywhere in the world. By using vertical FDI companies minimize production costs, by taking advantage of international factor-price differentials, which is a core concept of the law of comparative advantage. Capital-intensive goods and high-skilled services will mainly be produced in capital abundant developed countries (this is in accordance to Heckscher–Ohlin theory). Labor-intensive products, pro-

duced by using low-tech and simple assembly work, will be transferred to subsidiaries in low wage countries.

The third type of FDI can be classified by the method of establishing a foreign subsidiary of multinational company. These are *greenfield* and *brownfield* investments. Greenfield investment is done, when MNC establishes a totally new company or part of itself in the host country and builds up service or manufacturing industry virtually from the beginning (something that is being built on the virgin, green land). This is a desirable type of FDI for the host countries since it provides employment for the labour force and possible technological spill-over for the similar industries. Brownfield investment happen through merger and acquisition of the existing companies or by privatization of the state owned enterprises. This kind of FDI does not necessarily provide new jobs and economic growth, and it often involves period of restructuring, during which jobs are lost. It can also lead to less completion since the companies targeted for acquisitions are usually competitors of the investors. These forms of FDI are only “good” in case if the domestic company faces bankruptcy and loss of jobs. To this type of FDI certain non-equity forms of FDI such as: subcontracting, licensing and franchising could be added as well. This type of FDI doesn't necessarily involve capital flows from abroad, but it can contribute to the development of the host country's business sector.

The fourth type of FDI can be classified by method of financing a new subsidiary. It can either be financed from abroad or by financing it locally in the host country. The first type of FDI is much favoured by the host countries since it provides hard currency needed to finance trade deficits, and, indeed, the money from privatization in majority of Central European countries goes for this purpose (especially in Croatia). The later type of FDI by taking credit locally does not have a beneficial effect on the economy of the host country as whole. This is due to the fact that host country usually has a limited amount of capital available for financing economic activity, and foreign investors with their credit ratings that are superior to local firms, can easily crowd-out the market. *Intra-company loans* are one of the types of this kind of FDI. Capital goes from parent company to subsidiary. This is a kind of a loan, which must eventually be repaid. The question of repatriating profits arises here as well. If profits are reinvested in the subsidiaries production it allows for the addition of capital to host country's capital stock. If the profits are repatriated, and especially if they



are not taxed, these practices negatively influence the stock of capital in the host country.

Finally, FDI can be classified by the extent of foreign ownership. IMF classifies as FDI a subsidiary that is in 10% or more in ownership of the foreign company, anything less than that is classified as portfolio investment.

## CUI BONO?

There are two opposing views of the FDI. One claims that FDI is beneficial to source country, and the other view is that it actually is not that beneficial to the source country.

Moody, for example, praises FDI because it brings: “scarce capital where capital is needed and productive. It stimulates the domestic market for corporate control and hence serves to discipline managers. It is the bearer of knowledge to enhance productivity, potentially to the levels of international best practice (Mody, 2007, p. 1). Carković and Levine believe that foreign investment produces: “externalities in the form of technology transfers and spill-overs” (Carković and Levine in Moran, 2005(ed), p. 195) so government incentives for FDI attraction are more than justified.

On the other hand, as UNCTAD report puts it succinctly: “Not all FDI is ... always and automatically in the best interest of host countries” (UNCTAD, 1999, p.155). Since in capitalism firms are guided by the profit motif it should not be taken for granted that investors will always act in the best interest of the host country. If the interest of host country and investors are similar or the same, well and good, but if they are different it is hard to make investors act in the host country interest. Take for example the claim that more FDI means more jobs for the host countries, especially the transitional countries. In recent article by Kersan-Škabić and Zubić the authors analysed the impact of FDI on the job growth in Croatia, a typical transitional country. The authors found that there is negative correlation between FDI and job growth rate in Croatia (Kersan-Škabić, Zubić, 2009). Why is it so? First of all the majority of FDI in Croatia were the so called *brownfield* investments. Croatia was part of the former Socialist Federative Republic of Yugoslavia, which had a mixed system of economy, that was partially planned economy and partially market economy. All the firms had some problems with overemployment. When the foreign owners

came the first thing they did was to fire the workers that they no longer needed. The same was true of all the socialist transition countries. The types of investments which are actually beneficial to the growth of jobs in the host country are the so called *greenfield* investments. Greenfield investments mean that investors build their business in the host country, rather than taking over the existing business. They have to employ new workers, transfer the technology and build some physical infrastructure if they were poor at negotiating terms with the local authorities, and did not manage to bully them into providing land and decent basic communal infrastructure. The other case against FDI is the internal tax pricing that takes place between subsidiary and the parent firm. The internal accounting of firm can be made so that it will rob the host or source country of their share of the taxes. Profits of a parent company can be made better by simply charging higher prices for goods and services sent to subsidiaries, which are located in relatively high tax countries. By these practices parent firms minimize or eliminate the subsidiary's profits and thus they reduce its tax liabilities. As Cohen points out: "If a subsidiary is operating in a low tax country, transfer price legerdemain would consist of charging it artificially low prices, thereby maximizing profits where they will be taxed least. National tax agencies are exercising increased vigilance to discourage manipulation of transfer prices, but outsiders probably will never be able to completely penetrate the caliginous haze that shrouds real costs within massive corporations conducting tens or hundreds of thousands of transactions annually among their subsidiaries in dozens of far-flung countries. This fact might explain why a private study found that subsidiaries of U.S. corporations operating in four major tax havens (the Netherlands, Ireland, Bermuda, and Luxembourg) had 46 % of their profits in these four jurisdictions in 2001, but only 9 % of their employees and just fewer than 13 % of their plant and equipment. Artificially low transfer prices can also be applied to shipments to subsidiaries in high tariff countries, thereby depriving importing countries of another form of revenue. Artificially high transfer prices invoiced by headquarters can also serve as a clandestine means of evading host government restrictions on the amount of profits that foreign subsidiaries can remit to their parents." (Cohen, 2007, pp. 311-312).

The truth is that FDI is neither necessary a blessing, nor a curse. If a country has a well-developed legal and institutional infrastructure related to its economic and political system, it will probably attract the best FDI possible and it will be able to have a stronger bargaining position towards the investors. On the

other hand, a country that is not on that level of societal development will make it easier for investors to reap additional benefits for themselves. In other words the efficiency of FDI depends on the skills of the government to provide best conditions for economic development.

## HOST COUNTRIES AND FDI ATTRACTION - GENERAL APPROACH

We have already considered the push factors influencing the FDI. But it is also important to analyse what source country has to do to attract FDI. If it was all up to capital going from places where it is in abundance, to places where it is scarce and where its marginal productivity would be much greater, the question would be easily answered. Yet since this is not the case, and majority of FDI, nearly 80 % of it, takes places between the developed countries, the question is what can the developing and transitional countries (economies) do in order to attract sufficient FDI and initiate the economic growth?

Dani Rodrik, one of leading development economists, in the introduction to his book "One Economics Many Recipies" painted the following picture of the government efforts to influence the economic growth through its measures: "Trade barriers had been removed, price controls had been lifted, and all public enterprises had been privatized. Fiscal policy was tight, public debt levels low, and inflation non-existent. Labour markets were as flexible as they come. There were no exchange or capital controls, and the economy was open to foreign investments of all kind. "We have done all the first-generation reforms, all the second-generation reforms, and are now embarking on third generation reforms," he said proudly. Indeed the country and its finance minister had been excellent students of the teaching on development policy emanating from international financial institutions and North American academics. And if there were justice in the world in matters of this kind, the country in question would have been handsomely rewarded with rapid growth and poverty reduction. Alas, not so. The economy was scarcely growing, private investment remained depressed, and largely as a consequence, poverty and inequality were on the rise. What had gone wrong? Meanwhile, there were a number of other countries—mostly but not exclusively in Asia—that were undergoing more rapid economic development than could have been predicted by even the most optimistic economists. China has grown at rates that strain credulity, and India's performance, while

not as stellar, has confounded those who thought that this country could never progress beyond its “Hindu” rate of economic growth of 3 %. Clearly, globalization held huge rewards for those who knew how to reap them. What was it that these countries were doing right?” (Rodrik, 2007, p. 1) In a perfect World, this country would be receiving more than its fair share of the FDI, which would than almost certainly have a positive influence on its economic growth. Is this example showing us that there is actually nothing a government could do in order to promote FDI attraction and through it economic development? Or is there something it can do in order to attract the FDI? Moran pointed out that since 1991, 116 nations took proactive approach to attract FDI (Moran, 1998, p.37).

Before explaining the host countries possibilities for attracting or discouraging FDI, we have to define sovereign risk and country risk. Country risk is defined as exposure to a loss in a cross country transactions, caused by the events in a particular country, that are at least to some extent under the control of the government, but definitely not under the control of private enterprise or individual (Moosa, 2002, p. 132). Sovereign risk is a risk connected with perils of lending money to the government. Generally speaking economic theory recognises that investment flows depend upon macro, micro, and institutional reforms, low inflation rates, realistic exchange rates, efficient legal and regulatory systems which protect property, low levels of corruption that create favourable conditions for business operations in general.

Moran emphasizes five main areas of interest for foreign investors when they make their decisions whether to invest or not:

- a) Cultural factors (worker motivation, absenteeism, alcoholism, cultural preparation, etc.);
- b) labour regulations (flexibility in hiring and laying off workers);
- c) responsiveness of the surrounding economy in providing supporting goods and services;
- d) credibility of public-sector commitments about taxes, infrastructure, and other regulatory issues (often extending beyond the probable duration of any given government); and
- e) Institutional base of commercial law (case law or common law) to provide precedent when disputes arise (Moran, 1998, p. 89).

All countries included in this study have to a certain extent done necessary reforms in those five areas to ease pressures caused by financial crisis and to attract more quality FDI.

## “OLD” EU MEMBER STATES (PIIGS) - FDI ATTRACTION AND ECONOMIC CRISIS

**Portugal**, hit by the crisis, showed serious commitments to cut the bureaucratic red tape and foster investor friendly climate with following measures which gave swift results:

- it takes just 46 minutes to set up a company;
- doing business in Portugal is easy and increasingly less expensive PIN system expedites national interest projects;<sup>2</sup>
- wide array of possible investment incentives by the state are offered in number of key sectors such as manufacturing industry, trade, tourism, energy, transportation and logistics and services.<sup>3</sup> They take form of the tax breaks or state aid for these projects.

FDI in Portugal peaked in 2007, slightly declined in 2008, and resumed upward trend in the following years (see Table 1). Yet Portugal attracts FDI not only in tertiary sector services, retail, banking and finances, telecommunications etc but also in manufacturing sector as well. Most of the FDI in Portugal are brown field investments.

**Ireland** has for a long time been seen as one of the most successful countries with regard to FDI attraction. Due to its structural disbalances and overheating of building and financial sectors, FDI crisis in Ireland happened in 2005. 2004 level of FDI was reached in 2009, which marks the end of recovery process, helped by Irish government which decided to promote investment in the following sectors: business services chemicals, clean technology, cloud computing, construction, consumer goods, emerging business, entertainment and media, financial services, industrial automation and control, industrial products

<sup>2</sup> AICEP Portugal official site: <http://www.portugalglobal.pt/EN/InvestInPortugal/investors-guide2/whyportugal/Paginas/Costs.aspx>, visited 11.11.2014.

<sup>3</sup> AICEP Portugal official site: <http://www.portugalglobal.pt/EN/InvestInPortugal/investors-guide2/investmentincentives/Paginas/FinancialIncentivestoInvestment.aspx>, visited 11.11.2014



and services, information and communications technology (ICT), hardware & software, medical technologies, pharmaceuticals and transportation.<sup>4</sup> Government offers a competitive corporate tax rate standing at 12, 5 % and access to EU funds as well. Ireland is unique that most of its inward FDI are greenfield investments and its investment promotion agency IDA is one of the most successful in the World. Like in the years that followed after its accession to EEZ, Ireland is again looking for FDI to boost its economy since a significant number of multinational corporations has relocated their business from Ireland to CEE countries such as Poland and Slovakia, due to the lower production costs.

**Italy** has been included in this group because it was hard hit by crisis and because it is the only state here that is not counting on economic growth to come from FDI but rather from investments by Italian companies. Italy is also the largest outward FDI country in our study. The main pulls of FDI in Italy are sophisticated market and a good business climate especially in the northern regions of the country. Italy offers few incentives to invest in the form of the government subsidies except for the investment in underdeveloped south and it also offers access to EU funds for investment in these regions. The predominant form of FDI in Italy is brown field investment. Yet Italian outward investment is present in most of the Central and Eastern European countries we have discussed either in financial escorts, or automobile industry or in textiles, footwear or food industry. Italy was especially hard hit by the financial crisis in 2008. The public debt exploded and was hard to finance reaching 119 % of GDP in 2010 while the GDP fell by 7 % (Eurostat). Italy as the third largest economy in the Eurozone needed structural reforms in order to increase competitiveness and decrease public debt and spending. In November 2011 Italian prime-minister Silvio Berlusconi had to resign and a new technocratic government under Mario Monti was sworn in (Cencig, 2012, p. 3). Monti introduced a sort of austerity program for Italy with increase of taxes, pension reforms and measures to fight tax evasion while simultaneously trying to reform the labour market (ibid). It remains to be seen if current Italian government under the Prime Minister Renzi will continue with the much needed structural reforms emphasising labour market reforms and decreases in public spending in Southern Italian regions.

<sup>4</sup> Irish Development agency official site: <http://www.idaireland.com/>, visited 15.4.2014.

Regarding **Greece** the predominant type of FDI from 2007 onwards was “FDI in services. This trend was dictated primarily by the development of the country’s financial system, the liberalisation of telecommunications, and the stimulation of trade. The proportion of the secondary sector is relatively low compared with the potential of the country, a trend that suggests considerable scope for investment.”<sup>5</sup> There were few greenfield investments except in the tourism and majority of the investments in Greece in this period can be classified as brown field investments. Since a good portion of FDI is in tourism this can be categorized as resource seeking FDI since Greek coast and monuments are unique in the World. In order to foster FDI attraction Greek government passed the Investment Law of Greece 4146/2013, which should lead to development of friendly environment for investments. The only problem that we could notice is that this law has thusfar only been available in Greek language and has not yet been translated into English which will increase transaction costs for any potential investor. To further attract FDI inflows Greek government offers the following incentives<sup>6</sup>:

- a. Tax relief—Tax relief comprising exemption from payment of income tax on pre-tax profits which result, according to tax law, from any and all of the enterprise’s activities.
- b. Subsidy—Gratis payment by the State of a sum of money to cover part of the subsidised expenditure of the investment.
- c. Leasing subsidy—Includes payment by the State of a portion of the installments paid under a leasing agreement executed to acquire new machinery and / or other equipment
- d. Soft loans by ETEAN (National Fund for Entrepreneurship and Development). The amount to be covered by a bank loan may be funded by soft loans from credit institutions that cooperate with ETEAN enterprises.

But in spite of all these efforts Greece has not yet reached pre-crisis levels of FDI and GDP growth, mainly because of high public debt and lack of consistent economic policy. Such environment does not give much credibility in the eyes of foreign and domestic investors.

<sup>5</sup> Greek investment promotion agency official site: <http://www.investingreece.gov.gr/default.asp?pid=21>, visited 10.11.2014.

<sup>6</sup> Greek investment promotion agency official site: <http://www.investingreece.gov.gr/default.asp?pid=21>, visited 10.11.2014.

The main interest of FDI in **Spain**, which did not fall during the crisis, has traditionally been tourism and sectors such as telecommunications and financial services. Spanish government has tried to reverse this process by promoting aerospace, automotive, biotechnology, pharmaceuticals, renewable energy, environmental and ICT as key investment areas in which government incentives to invest will be available.

Spanish government offers following incentives to invest in Spain:

- state incentives for training and employment,
- state incentives for specific industries,
- incentives for investments in certain regions,
- state incentives for SMEs,
- preferred financing from the Official Credit Institute (*Instituto de Crédito Oficial* or ICO),
- incentives for internationalization.

By offering certain incentives and advantages Spain has been attracting more FDI in manufacturing sector since 2008 than in services sector<sup>7</sup> Spain was one of the few countries in Europe that did not experience the sharp drop in FDI in 2008 with the unemployment and especially youth unemployment being still high FDI are seen as one of the few viable strategies of economic growth and unemployment reduction.

<sup>7</sup> OECD International Direct Investment Statistics 2013, Foreign direct investment flows by industrial sector: Spain

[http://www.keepeek.com/Digital-Asset-Management/oecd/finance-and-investment/oecd-international-direct-investment-statistics-2013/foreign-direct-investment-flows-by-industrial-sector-spain\\_idis-2013-table121-en#page1](http://www.keepeek.com/Digital-Asset-Management/oecd/finance-and-investment/oecd-international-direct-investment-statistics-2013/foreign-direct-investment-flows-by-industrial-sector-spain_idis-2013-table121-en#page1) visited 12.11.2014.

**Table 1** FDI inflows - PIIGS 1995-2012 (source: eurostat)

FDI mil ECU/EUR	1995	1996	1997	1998	1999	2000	2001	2002	2003
Portugal	13.816	16.473	20.476	25.788	26.787	34.437	40.875	42.564	47.969
Italy	48.283	58.001	73.506	90.305	105.249	121.492	122.556	120.608	143.223
Ireland	:	:	:	89.226	90.254	129.703	152.120	174.403	176.435
Greece	:	:	:	11.214	15.951	:	15.317	14.838	17.779
Spain	79.671	85.117	91.195	101.233	124.787	168.026	201.128	245.166	268.925

  

FDI mil ECU/EUR	2004	2005	2006	2007	2008	2009	2010	2011	2012
Portugal	49.167	53.691	67.169	78.333	71.833	79.629	83.588	86.427	90.783
Italy	162.036	189.935	223.890	255.766	235.618	252.968	245.515	274.462	275.598
Ireland	152.446	138.620	118.824	138.362	135.294	173.610	213.722	224.511	257.513
Greece	20.985	24.788	30.126	35.380	27.141	28.131	30.235	22.486	18.799
Spain	290.715	325.963	350.438	397.974	423.152	438.877	470.245	476.903	475.767

## THE BALTIC STATES - FDI ATTRACTION AND ECONOMIC CRISIS

**Estonia, Latvia, and Lithuania**, were among the most liberal reformers and they relied heavily on the FDI in order to boost their economic growth and the balance of payments problems. Among the three Baltic States, Estonia exhibits the best economic development with far above average growth rates and strong capital accumulation. Its FDI as a percentage of GDP is even the highest among the transition countries. Estonia also holds the smallest fiscal deficit and is among the three most open economies. Latvia experienced an economic development similar to Estonia's, albeit not quite as good. The domestic investment ratio is about three percentage points below Estonia's. In addition, Latvia is less open and ran on average a higher fiscal deficit. Lithuania stands apart from Estonia and Latvia. It had slightly below average growth rates determined by mainly negative economic indicators. Even FDI and trade openness, though above average, are close to the median country. All of this changed in 2000s and both Latvia and Lithuania pursue FDI attraction policies by offering incentives to possible investor in form of state aid, tax breaks, and access to EU funds.<sup>8</sup> Es-

<sup>8</sup> On Latvian FDI attraction incentives see more on Investment and development agency of Latvia: <http://www.liaa.gov.lv/invest-in-latvia>, visited 12.02.2015.

tonia is unique among the transition countries in Eastern and Central Europe – it offers no tax incentives for attracting FDI because it would be in contrary to the prevailing liberal market ideology in the country.

The most immediate consequence of financial crisis in 2008 was sudden stop of capital flows to the Baltic States (Eurostat). Baltic States have high trade openness and are mostly export orientated so they are susceptible to demand shocks coming from their export markets. Due to the financial crisis “export demand collapsed, which affected the Baltic States disproportionately, as their economies are very open and have large export sectors integrated into Western European supply chains. The crisis also impaired sentiment among households and firms, leading to lower consumption and investment demand. The situation was exacerbated by the disruption of financial markets, which spurred banks to tighten credit standards and made stock markets illiquid, in turn making it difficult for many enterprises to access working capital” (Staeher, 2013). The monetary policy crisis was more or less the same in all three countries they decided to keep fixed exchange rates vis-à-vis Euro. On fiscal side all of these countries opted for austerity with Estonia implementing the severe austerity measures immediately while Lithuania and Latvia adopted a more gradual approach to fiscal austerity. All of these countries increased taxes but as Staeher points out: “The bulk of the adjustment came from the expenditure side and comprised substantial cuts in employment and wages in the public sector, cuts in social programmes, postponement of investment, and structural reforms, e.g. mergers of hospitals and schools. In addition, a number of extraordinary revenue measures were taken”. Thanks to these measures and to free movement of their citizens which tried their luck with employment in other EU states these countries managed to overcome crisis and return to economic growth.



**Table 2** FDI inflows Baltic states 1995-2012 (source: eurostat)

FDI mil ECU/EUR	1995	1996	1997	1998	1999	2000	2001	2002	2003
Estonia	:	:	1.033	1.580	2.454	2.843	3.573	4.035	5.553
Latvia	:	:	1.143	1.324	1.706	2.215	2.669	2.661	2.636
Lithuania	:	:	942	1.393	2.054	2.508	2.974	3.819	3.968

  

FDI mil ECU/EUR	2004	2005	2006	2007	2008	2009	2010	2011	2012
Estonia	7.374	9.561	9.644	11.386	11.775	11.670	12.495	13.109	14.667
Latvia	3.349	4.199	5.747	7.534	8.063	7.998	8.108	9.404	10.333
Lithuania	4.690	6.921	8.377	10.283	9.191	9.206	10.031	11.029	12.101

## CENTRAL EASTERN EUROPEAN COUNTRIES, FDI ATTRACTION AND ECONOMIC CRISIS

For CEE countries, as a destination for FDI, we can identify several characteristics (Jude, Pop Silaghy, 2010):

„1. *Relatively low labor costs, but low labor productivity.* At the beginning of the nineties this countries have experienced a dramatic decrease in productivity, which started to recover only during 1997-1998. There is a convergence towards western productivity levels, but the differences are still present, even inside this group of countries. As an example, Romania and Bulgaria reach today around 50% from the average European labor productivity. Even more, national averages hide a high heterogeneity. A part of the low industrial productivity is being compensated by the service sectors, which have productivity levels comparable with Western Europe.

2. *High industry specialization, but low efficiency.* The centralized economic system and market dependence on the ISC (Independent States Community) countries have led to an industrial specialization in industries like chemicals, machinery and heavy metals' industry. Once firms have lost these markets, they also lost their scale production economies, accumulated high debts and even reached the closing point.

3. *Skilled Labor Force* and at a low salaries compared to FDI origin countries. Although the wage gap is narrowing, it remains important in investors' decisions about geographic locations, especially in labour intensive sectors.

4. A good *absorption capacity*. The general view is that CEE countries have a sufficient level to integrate in a productive way the new technology brought by FDI. The two components of the absorption capacity refer to the human capital and to the technological capacities. ... In particular the skilled labour is appreciated as considered to facilitate the knowledge transfer and the mobility of the workers among the foreign and domestic firms."

FDI inflows plummeted across the region in 2009 and 2010, but in 2011 and 2012 they started to recover in the Czech Republic, Bulgaria, Hungary and Slovakia.

**Poland** is the country which has profited the most from FDI attraction. It has based its economic growth and development on successful FDI attraction. *In Poland* the FDI was modest in the beginning, but then really took off. According to Financial times one of the best years for the Polish economy was 1999, because FDI in Poland hit a record \$8 billion, taking the total to \$39 billion, or 40 per cent of the ex-Soviet bloc total (*FT*, Survey, 17 April 2000, p. i). Poland also set up a free enterprise zone. Euro Park Mielec was the first of this free enterprise zones and was opened in 1995 with a twenty-year life span. Investors enjoyed ten years of corporate tax relief (dependent on investment and exports) and a 50 per cent cut in corporate tax in the second decade. In 1996 the government approved the setting up of a special enterprise zone in Katowice (soon free economic zone in Suwalki was to follow). Today Poland has 14 operational economic zones many more technological parks. Poland still offers government grants for FDI attraction on basis of *Program for the support of investments of considerable importance for Polish economy for years 2011-2020*. Besides state aid Poland offers other incentives for foreign investors like tax breaks and location selection<sup>9</sup>. Poland was the only EU economy not to experience the contraction of its GDP during the recent economic crisis. This was mainly due to sound fiscal policy and manageable public debt and to a fact that Poland allowed for depreciation of zloty *vis a vis* euro thus keeping its exports competitive. It also could rely on a large internal market (38 million consumers) and boost domestic consumption and government in Poland is considered to be business friendly.

<sup>9</sup> On Polish investing incentivess see more on Polish Information and Foreign Investment Agency

<http://www.paiz.gov.pl/en>, visted:12.12.2014.

**Slovakia** has been far less successful than the Czech Republic in attracting FDI in the 1990s, despite the fact that some tax and other incentives were offered for a longer period of time than in the Czech Republic (which abolished them in the 1993). Maybe this lack of FDI had something to do with the fact that Slovakia was under the rule of Vladimir Meciar, whose regime was a semi-democratic, semi-authoritarian dictatorship. Slovakia did not offer incentives for foreign investment during the 1990s. Economic ministry was almost forced to offer tax incentives have for foreign investors. Manufacturers were eligible for tax reductions if certain investment and production targets were reached. In 1998, when the Tesla semi-conductor plant was declared bankrupt, US Company Motorola agreed to buy the firm. Americans managed to squeeze a ten-year tax holiday out of the former Meciar government – the first ever such incentive in Slovakia (it had something to do with the Olson's rule that capital demands higher rates of return and more guarantees if it is invested in the countries with non-democratic regimes). Djurinda's government (coalition of parties which managed to topple Meciar from power in 19998) hoped to build on that success by offering similar incentives to anyone investing over \$5 million. It also set up free-trade zones and offered tax write-offs for research and development. Today Slovakia is still pursuing active FDI attraction policies by granting state aid and tax breaks to foreign investors in selected industrial sectors<sup>10</sup>. The economic crisis hit Slovakia mostly in fall of foreign demand for industrial products produced in Slovakia. Thanks to the introduction of Euro in 2009 Slovakian public finances were in solid order since previous governments had to adhere to strict Maastricht criteria regarding the fiscal policy in order to join Eurozone.

**Czech Republic** started its FDI attraction story by giving tax exemptions to foreign investors, and abolished it in 1993, except in the special areas like electricity or consulting services. This was done in order not to put the domestic firms at the disadvantage. Czechs could afford to do it like this, since they had a strong industrial base, and a long tradition of industrial organisation. The state established free economic zones. Enterprises which were more than 30 per cent foreign-owned were exempt from customs duties for one year). The biggest FDI in Czech Republic came into the guise of the privatization of the Skoda

<sup>10</sup> On Slovakia incentives for FDI attraction see more on Slovak investment and trade development agency (SARIO): <http://www.sario.sk/en/invest-slovakia/why-invest-slovakia>, visited 12.02.2015.

automobile factory. It was bought by Volkswagen. Volkswagen–Skoda alone accounted for amazing 10 per cent of Czech exports in the year 2000. Today as every other CEE country Czech Republic is pursuing active FDI attraction strategy by offering state aid and tax breaks to potential investors in selected industrial sectors<sup>11</sup>. Czech Republic opted for austerity in dealing with economic crisis. Taxes were increased and public spending decreased. Yet unemployment remains high in Czech Republic with the 8, 5 % unemployment rate<sup>12</sup>.

**Hungary** was the early transition champion in attracting FDI during the 1990s. The country has had a mixed performance during the 2000s and especially since 2008 after the new “strong” government headed by Viktor Orban came to power. Hungarian problem was that during the initial FDI boom the majority of FDI was in form of brownfield investments and fewer greenfield investments. The Hungarian state has made a strategy of FDI attraction based on the following industrial sectors: automotive sector, biotechnology and pharmaceuticals, electronics, food, renewable energy, IT services, shared service centers, logistics and medical technology. Hungary competes for FDI by providing government incentives which can cover up to 50 % of the costs of investment depending on the type and location of investment.<sup>13</sup> Hungarian public finances were in quite a bad shape prior to financial crisis. Hungarian government ran fiscal deficits and accumulate large external debt<sup>14</sup>. Hungary also had its period of austerity with public spending being put under control and taxes were increased (VAT rate in Hungary is 27 % the highest one in EU).

Unlike the other of the observed countries from the central Europe during the initial years of its transition **Slovenia** was actually hostile to FDI and was rather quite keen to promote its outward FDI to former Yugoslavia countries, Central and Eastern Europe. Slovenia was especially hostile to brownfield FDI and was also keen to keep its banking sector out of foreign hands. All of that

<sup>11</sup> On Czech FDI incentives see more on Czech Invest - Investment and bussines development agency <http://www.czechinvest.org/en/why-invest-in-the-czech-republic>, visited: 23.02.2015.

<sup>12</sup> Forbes: The Stunning Failure Of The Czech Republic's Austerity Experiment: <http://www.forbes.com/sites/markadomanis/2013/05/30/the-stunning-failure-of-the-czech-republics-austerity-experiment/>, visited 12.02.2015.

<sup>13</sup> Hungarian investment promotion agency: <http://www.hipa.hu/en/Content.aspx?ContentID=220482e5-5231-4d5f-bf8a-bbe11268d14a>, visited 21.11.2014.

<sup>14</sup> VOX CEPR's policy portal: The Hungarian Crisis, <http://www.voxeu.org/article/hungarian-crisis>, visited 21.02.2015.

changed with the Accession of Slovenia to EU in 2004 and especially with the financial crisis in 2012 when Slovenian government announced privatization of majority of state owned industries. Slovenia offers incentives for investment with regards to the creation of new jobs, the transfer of new technologies and know-how, and outsourcing opportunities where the local companies would get new business partners.<sup>15</sup> Financial crisis was a severe shock for the Slovenian economy. The public debt rose above 60 % of GDP and Slovenian banks who were partially or majority owned by the state faced bankruptcy or needed to find additional capital<sup>16</sup>. Austerity was also practised by Slovenian governments from 2009 onwards by lowering public spending and increasing the tax burden. The government also pursued the limited structural reforms in labour market making it more flexible. Slovenia will have to privatize its state owned banks and companies in the near future. This means more revenue for the Slovenian budget but also more brownfield FDI for Slovenian economy.

**Table 3.** FDI inflows CEE 1995-2012 (source: eurostat)

FDI mil ECU/EUR	1995	1996	1997	1998	1999	2000	2001	2002	2003
Poland	:	:	13.211	19.266	25.956	36.783	46.802	45.729	46.021
Hungary	:	:	:	:	:	:	31.187	34.518	33.205
Czech R	:	:	7.584	12.491	17.870	23.720	32.760	36.007	35.223
Slovenia	:	:	:	:	:	:	2.987	3.769	4.985
Slovakia	:	:	1.694	2.135	2.801	4.858	6.507	8.283	12.615

FDI mil ECU/EUR	2004	2005	2006	2007	2008	2009	2010	2011	2012
Poland	63.428	76.673	95.417	120.726	116.914	128.948	160.781	155.699	178.878
Hungary	45.874	52.341	62.488	64.947	62.005	68.715	68.142	64.681	77.487
Czech R	42.036	51.433	60.643	76.315	81.468	87.304	96.149	93.231	103.078
Slovenia	5.582	6.132	6.822	9.765	11.326	10.625	10.925	11.715	11.724
Slovakia	16.089	19.951	25.564	29.075	36.226	36.469	37.665	40.173	42.304

<sup>15</sup> Slovenian investment and trade agency official site: <http://www.investslovenia.org/business-environment/incentives>. visited, 20.11.2014.

<sup>16</sup> On financial crisis in Slovenia see more in Štiblar, F., Globalna kriza in Slovenija (<http://www.pf.uni-lj.si/media/stiblar.kriza.in.slovenija.pdf>), visited, 20.11.2014.



**Bulgaria** attracted a total of EUR 37 billion in foreign direct investment in 2001-2011, according to estimates, which made 2001-2011 the most successful decade in Bulgaria's history ever in terms of attracting FDI. Final data of the Bulgarian National Bank and the Invest Bulgaria Agency shows that in 2001-2010, Bulgaria's total FDI reached EUR 35.7 billion. 2007 set a record in Bulgarian history with a FDI peak of EUR 9.05 billion.<sup>17</sup> Until 1997 FDI inflows to Bulgaria have been low due to the unfavourable investment environment and absence of significant privatization activities. In the post-1997 period, FDI inflows achieved robust growth as a result of the macroeconomic stabilization, improved investment climate and accelerated privatization effort. Also Bulgaria had a rather low GDP, that left significant room for growth and the strengthening of the national economy coincided with Bulgaria's accession to the EU in 2007 which caused further FDI inflow. Thus, by the end of 2008 Bulgaria's national economy had become one of the most FDI heavily reliant countries in the CEE region. "However, shortly after this FDI growth period, significant problems began to emerge. Ever since Bulgaria's accession to the EU, the country has been failing to meet EU economic regulation standards. It has had issues with bureaucracy and corruption and, moreover, its cumbersome administrative procedures have not made trading transactions easy. Nonetheless, the most significant factor affecting FDI markets worldwide, the global financial crisis of 2007-2008, saw Bulgaria somewhat less hit than other economies, due mostly to the country's relative 'poorness'. Still, with the shortage of worldwide market liquidity and the rise of private debt, Bulgaria's economy did contract and the flow of FDI significantly decreased. By 2010, Bulgaria had a negative FDI inflow of 62.5 million euros for the April-January period followed by another contraction of 26.9 million Euros for the same period so far in 2011 according to data provided by the Bulgarian National Bank. For the most part, it is considered that a significant volume of FDI for the period between 2008 and 2011 has failed to generate absorptive capacities and productivity growth. Furthermore, during the time of a financial recession when global market liquidity of funds is widely unavailable, the most stable FDI sectors are deemed to be the processing industry, energy and telecommunications. As it happens, however, in Bulgaria the major FDI sectors are finance, retail and real estate, with FDI being 70-80% spread among these sectors in 2008, and shrinking to 24% in 2010."<sup>18</sup>

<sup>17</sup> Expats.bg: <http://www.expats.bg/wikis/9/FDI-in-Bulgaria>, visited 22.02.2015.

<sup>18</sup> Bulgaria: Overview of Foreign Direct Investment: <http://goaleurope.com/2011/07/22/bulgaria-overview-of-foreign-direct-investment/>, visited 20.02.2015.

The dynamic of annual FDI flows in **Romania** can be divided into the following subcategories (Moraru, 2013, pp.130-131):

-2003-2006: the total flows of FDI achieved a steady growth from 9,059 million Euros to 1.946 billion Euros, increased by 78.51%, mainly due to large privatizations registered in

Romania in banking and industrial sectors (oil and petrochemical, metallurgy, machine building);

-2007-2008: marks the maximum amount of FDI attracted in Romania, their value being 9,496 million Euros in 2008;

-2009-2013: FDI volume decreased dramatically, reaching 1,815 million Euros at the end of 2011, due to the impact of economic and financial crisis.

But at the end of 2011, the balance of foreign direct investment reached 55.139 million Euros, 4.9% more than the balance of the previous year. "FDI inflows were down to \$2.24bn in 2012. Data from FDI Markets shows the same trend in project numbers: in 2008, there were 309 projects recorded in the country, this figure was down to 138 and 122 in 2012 and 2013, respectively. The effect of the downturn is not surprising, of course. Growth before the crisis was stimulated by foreign investment, which created employment, boosted consumer confidence and increased consumption. With the global financial crisis and then the Eurozone crisis, all that changed. Established foreign investment in Romania has kept up the country's exports, but recovery in the domestic space has been sluggish."<sup>19</sup>

According to the World Bank, **Croatia**'s FDI inflow have been 33, 9 billion US\$ from 1992 to 2013. FDI was rather low until 1995 due to the war. The surge in FDI inflow to Croatia, especially after 2000, was driven largely by the economic recovery, a better investment climate and the start of accession negotiations with the European Union (EU) in 2005, until it peaked in 2008 with 4.22 billion euro, that is almost 40 times more than in 1993 (101 million euro) Since the independence the main source of FDI has been privatization of strategic government-owned assets, such as utilities and banks, resulting in high inflow of FDI. Like the CEE countries, Romania and Bulgaria, Croatia was affected by the financial crisis, resulting in the FDI fall in 2009 (World Bank,

<sup>19</sup> FDI Intelligence, Is Romania back in the game?, <http://www.fdiintelligence.com/Locations/Europe/Romania/Is-Romania-back-in-the-game?ct=true>, visited 20.02.2015.

2014). After sharp fall in 2010 (295.3 million euro, that was just 0.9% of GDP) the amount of FDI has risen in 2011 to 1.05 billion Euros (European Commission 2011). Beside global recession, another reason for the fall is the emerging structural problems within the economic sector. These structural problems are mainly caused by corruption and complex bureaucracy. Some actions have been made in order to change this, but the long-time results of the efforts are still not visible (World Bank, 2014). In Croatia the lack of institutional infrastructure to attract foreign direct investment at the national level in which only in 2012 the Agency for Investment and Competitiveness (AIK) was (re) formed, is an important limiting factor in ease of entry of new investors in the national market. In 2013, the Croatian Parliament passed the law on strategic investment projects. By analysis of that act and its subsequent amendments it is possible to notice a certain incentives, but only partly effective solutions. Because of these shortcomings, as well as the lack of coherent and harmonized framework for economic development, stimulating investment climate and adequate institutional infrastructure in attracting FDI, Croatia is still left behind by other “older” EU member states, as well as CEE and SEE EU member states, with FDI below pre-crisis level.

**Table 4.** FDI inflows SEE 1995-2012 (source: eurostat)

FDI mil ECU/EUR	1995	1996	1997	1998	1999	2000	2001	2002	2003
Bulgaria	:	:	:	1.368	2.151	707	3.144	3.741	4.948
Romania	:	:	2.218	3.840	5.496	:	:	:	9.662
Croatia	:	:	:	:	:	2.954	4.365	5.684	6.753

  

FDI mil ECU/EUR	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bulgaria	7.420	11.738	17.831	25.770	31.659	34.170	35.348	36.620	37.756
Romania	15.040	21.865	34.494	42.799	48.345	49.889	52.866	55.093	58.915
Croatia	9.046	12.242	20.766	30.354	21.740	25.366	26.164	23.824	23.917

## ECONOMETRIC MODEL

As we have already stated, the purpose of this article is to examine the relationship between FDI inflows to our selected countries and national economic policy that they have lead in good times and especially in the time of crisis. We assume the existence of certain differences between these groups of countries,

which are caused by the possibility to accommodate the effects of international financial crisis through autonomously run monetary and fiscal policy. The groups of countries which we selected for our analysis can roughly be divided in to pigs (Portugal, Italy, Ireland, Greece and Spain), Central European and Baltic countries (Slovenia, Hungary, Slovakia, Czech Republic, Poland, Lithuania, Latvia and Estonia) and South East European group (Romania, Bulgaria, Croatia<sup>20</sup>). The groups can also be divided into following groups: old member of EU (pigs), member states since 2004 (CE and Baltic countries) and new arrivals in 2007 and 2013 respectively (SEE countries). The panel data model has been built and tested for the period from 1995 to 2012. We chose 1995 as the start year for our analysis since it was the symbolic end of the economic transition in Central Europe.<sup>21</sup>

The proposed econometric model goes as follows:

$$\text{FDI/GDP} = a + b\text{Infl} + c\text{Eurzo} + d\text{Reg} + e\text{Debt} + f\text{Trade} + g\text{GDPgrowth} + 3$$

**FDI/GDP** is dependent variable which stands for foreign direct investments inflows to specific country or groups of countries as part of their GDP;

**Infl** is the annual inflation rate in the host country at period *t*, to control for macroeconomic stability. Sound macroeconomic policy should help the country attract more FDI (Rodrik, 2007, Bandelj, 2008). Investors are more likely to invest their resources or to locate their businesses in the countries where there is low inflation combined with the prudent fiscal and monetary policy;

**Reg** is a dummy variable which captures the benefits of membership of regional economic integration (REI) for host's country FDI attraction. For the years in which the observed individual countries are member states of EU its value is 1 otherwise it is 0;

**Euro** is dummy variable which shows how the membership in Eurozone influences FDI inflows. The value is 1 if the country is member of Eurozone otherwise it is 0;

**Debt\_GDP** is variable representing the level of public debt of individual countries in GDP. This variable stands as proxy for a sound and responsible

<sup>20</sup> Croatia was included in South East European countries group due to the fact of its late EU accession date in 2013 and due to its less than optimum performing economy, as well as FDI attraction efforts.

<sup>21</sup> Eg. Polish GDP reached its 1989, pre transition, level in 1995.

fiscal policy. The lower the public debt the more likely is that FDI will be attracted. This variable also stands as proxy for financial crisis since the level of public debt has substantially risen in times of economic crises in majority of countries we have studied in this paper;

**Trade\_open\_.** This variable stands for the economic openness of the host economy. The larger the openness the more FDI is likely to be attracted;

**gGDP** represents GDP growth rate of the selected countries and is used as a proxy for market demand in them. Higher demand means more investment opportunities and therefore it is likely to generate more FDI inflows;

Data were transformed into relative form as presented above in order to eliminate non-stationarity of the series. Panel data analysis with two separate equations was employed, first one including country fixed effects (Table 5) and the other one groups of countries fixed effects (Table 6).

**Table 5:** Results of specification 1a.

Fixed-effects (within) regression	Number of obs	=	195
Group variable: year	Number of groups	=	16
R-sq: within = 0.0862	Obs per group: min	=	7
between = 0.0000	avg	=	12.2
overall = 0.0596	max	=	16
	F(6,173)	=	2.72
corr(u_i, Xb) = -0.1508	Prob > F	=	0.0150

fdi_gdp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
trade_open	1.227048	.4980558	2.46	0.015	.244	2.210096
debt_gdp	.117809	.5948762	0.20	0.843	-1.056341	1.291959
g_gdp	.975457	.3730796	2.61	0.010	.2390833	1.711831
infl	-.000588	.0017123	-0.34	0.732	-.0039677	.0027916
reg	.1021458	.0624997	1.63	0.104	-.0212143	.2255059
euro	-.012707	.0504563	-0.25	0.801	-.1122963	.0868823
_cons	.3546521	.0634453	5.59	0.000	.2294256	.4798787
sigma_u	.11995647					
sigma_e	.26178917					
rho	.17352884	(fraction of variance due to u_i)				

F test that all u\_i=0: F(15, 173) = 1.23 Prob > F = 0.2560

Two variables were significant in the specification using country fixed effects: trade\_open and g\_gdp. All others, except euro had signs in accordance with economic theory presented above.



Results show that one percentage point increase in trade openness results in 1.2 p.p. increase of FDI-to-GDP ratio, showing that FDI inflows increase in parallel with the trade increase. Increase in the growth of GDP by one p.p. results in almost one p.p. increase in FDI/GDP ratio.

An alternative specification with lagged dependent and explanatory variables was considered, although it is reasonable to assume that all the relevant reactions of the economic subjects are performed in the same period.

Results show that the impact of the trade openness becomes statistically significantly negative, similarly as the public debt to GDP ratio. The first result would support the theory that trade and FDI inflows represent substitutes, the other one is totally in accordance with economic theory, as explained before (Table 2).

**Table 6:** Results of specification 1b.

Fixed-effects (within) regression	Number of obs	=	178
Group variable: STATE	Number of groups	=	16
R-sq: within = 0.8258	Obs per group: min	=	2
between = 0.9818	avg	=	11.1
overall = 0.9300	max	=	15
	F(7,155)	=	104.98
corr(u_i, Xb) = 0.6867	Prob > F	=	0.0000

fdi_gdp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fdi_gdp L1.	.8310966	.0436554	19.04	0.000	.7448603	.917333
trade_open L1.	-.2740201	.1483388	-1.85	0.067	-.5670466	.0190063
debt_gdp L1.	-.4581094	.1636205	-2.80	0.006	-.7813231	-.1348956
g_gdp L1.	-.0157901	.0854564	-0.18	0.854	-.1845995	.1530193
infl L1.	.0000457	.0004634	0.10	0.922	-.0008698	.0009611
reg	.0307379	.0196078	1.57	0.119	-.0079951	.0694709
euro	-.0023603	.0288514	-0.08	0.935	-.0593531	.0546324
_cons	.0401072	.0217359	1.85	0.067	-.0028296	.083044
sigma_u	.05845606					
sigma_e	.0660385					
rho	.43931932	(fraction of variance due to u_i)				

F test that all u\_i=0: F(15, 155) = 1.65 Prob > F = 0.0665

In the second specification (Table 7) four groups of countries were formed in order to reflect common economic characteristics of certain groups of countries. “pigs”, composed out of Portugal, Ireland, Italy, Greece and Spain; “cees”, composed out of Czech Republic, Hungary, Poland, Slovakia and Slovenia; “baltic”, composed out of Estonia, Latvia and Lithuania and “poor” with the most recent EU members Bulgaria, Croatia and Romania. The resulting equation gives better outcome than equation presented in Table 1, besides that it exhibits higher statistical significance (see F-statistic).

**Table 7:** Results of specification 2.

Source	SS	df	MS	Number of obs = 195		
Model	2.46929923	9	.274366581	F( 9, 185) =	4.04	
Residual	12.5774495	185	.067986214	Prob > F =	0.0001	
				R-squared =	0.1641	
				Adj R-squared =	0.1234	
Total	15.0467487	194	.07756056	Root MSE =	.26074	

  

fdi_gdp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
trade_open	1.28966	.4415569	2.92	0.004	.4185258	2.160795
debt_gdp	-.6116981	.5501251	-1.11	0.268	-1.697023	.4736271
g_gdp	.5478112	.3045044	1.80	0.074	-.0529363	1.148559
infl	-.0029825	.001616	-1.85	0.067	-.0061707	.0002058
reg	.2480741	.0527994	4.70	0.000	.1439079	.3522404
euro	-.04875	.0857127	-0.57	0.570	-.2178499	.12035
GROUP						
cees	.0433564	.0624474	0.69	0.488	-.0798441	.166557
pigs	.0193594	.0970757	0.20	0.842	-.1721583	.2108771
poor	.1822306	.0699297	2.61	0.010	.0442683	.3201929
_cons	.223676	.0763622	2.93	0.004	.0730233	.3743287

All explanatory variables used in the equation (except euro area membership and debt to GDP) are highly statistically significant and have expected sign (even the statistically insignificant variables of euro and debt\_gdp).

Similarly as in the specification with country fixed effects, trade-openness positively affects the share of FDI in country's GDP. The more the country is integrated in regional or world economy the more FDI it is bound to attract. For every percentage point of increase in trade openness the amount of FDI inflows as share of FDI in GDP is going to increase by 1.28 percentage points.

The same sign is observed for the GDP growth. If GDP growth rate increases by 1 percentage point, FDI inflows measured as their share of GDP will increase by 0.54 percentage points. This shows us that GDP growth rate which

stands as a proxy for market demand positively influences FDI attraction. It also means that if GDP of a country is growing there will simply be more investment opportunities.

Inflation has an expected negative sign, showing that macro-economic instability negatively affects the FDI inflow. Membership in the regional economic association (i.e., membership in the European Union) has a positive impact on the FDI-to-GDP ratio, which is not the case in the previous specification. Anyhow, this result indicates that the abolition of tariff and non-tariff barriers, approximation of legislation etc. lead also to increase in FDI inflow in member countries. Common currency does not exhibit any impact on the FDI.

Share of public debt in GDP which we used as a proxy for sound fiscal policy was not statistically significant in our model but it negatively influences FDI which is in accordance with economic theory. Normally countries exhibiting sound fiscal policies and sustainable public debt generate more FDI inflows since investors will not be scared away by the possibility of increase of the level of taxation or introduction of new taxes in order to service high public debt.

None of the explanatory variables was significant if the alternative specification, using lagged dependant and explanatory variables was used; therefore its results are not presented here.

## CONCLUSION

Can economic policy really influence the FDI attraction? The answer is luckily positive. Econometric analysis has shown that with adequate economic policy, such as appropriate monetary policy which achieves low inflation and trade policy which promotes trade openness and membership in larger regional economic integrations, it is possible for countries to increase share of FDI in their GDPs. This suggests that abolition of tariff and non-tariff barriers, harmonization of legislation etc. leads to increase in FDI inflows. The econometric analysis has also shown that GDP growth rate (which in our model stood as a proxy for market demand) is also one of the essential ingredients of FDI attraction. If GDP growth rate is positive there will be more market demand and therefore more investment opportunities.

On the other hand, economic crisis negatively influences FDI attraction. In crisis trade openness is lower since countries tend to react with protectionist

measures to foster domestic industries, trade less with each other and national investments are proffered over foreign ones. Economic crisis also causes macroeconomic instabilities in forms of higher inflation rates or higher share of debt in GDP. These macroeconomic instabilities will in turn cause lower FDI inflows since investors are wary of potential higher tax burdens which are needed to pay of rising government debts. Finally, economic crisis causes GDP growth rate to fall down which will in turn lower domestic market demand and there will be fewer profitable investment opportunities. Lower or even negative GDP growth rate will also increase public debt.

FDI is neither a blessing nor a curse for the national economy. It is only one component of economic development and growth which is not even the most important one. The most important is having a good human capital and good institutional infrastructure, public and private one, and FDI will then flow to the country, even if there are no significant government incentives to attract it, as in already developed "old" EU member states. It will flow outside of the country if these two components are lacking, as we can see from the example of Croatia and to certain extent in Bulgaria and Romania.

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