Charles University in Prague

Faculty of Social Sciences

Institute of Economic Studies

Rigorous Thesis

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Charles University in Prague

Faculty of Social Sciences

Institute of Economic Studies

Rigorous Thesis

Institutional Determinants of Investment Inflows into Transition Economies

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Academic Year: 2015/2016

Declaration of Authorship

I hereby declare that I elaborated this rigorous thesis independently, unless otherwise indicated, using only the listed literature and resources.

Prague, February 12, 2016

Signature

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Abstract

This thesis investigates the relationship between institutional quality and the level of investment inflows into post-communist countries. I attempt to empirically verify the argument that institutional determinants are essential in explaining the variation in investment inflows into transition economies after the demise of socialism in the early 1990s. The role of institutions is assessed using Economic Freedom indices provided by the Heritage Foundation. Consequently, to investigate the progress of institutional quality in transition economies, I further employ indicators developed by the European Bank for Reconstruction and Development. Using a panel data set for 11 transition countries from 1993 to 2013, I conclude that the impact of institutional quality on investment inflows is not negligible, yet much weaker than suggested by the existing theoretical literature. Using a fixed-effects model framework in both regression benchmarks with metrics from the Heritage Foundation and the European Bank for Reconstruction and Development, respectively, I observe that the impact of institutional variables on the level of investment was less significant than expected. Moreover, macroeconomic fundamentals appear to always play a more substantial role than institutional factors.

KEYWORDS: foreign direct investment; institutional determinants; fundamentals; post-communist economies; panel data; Visegrad; Balkans; Baltics

JEL CLASSIFICATION: F21; F23; K20; H11

Abstrakt

Práce se zabývá vztahem mezi kvalitou institucionálního prostředí a přílivem přímých zahraničních investic v postkomunistických zemích. Hlavním cílem je empiricky potvrdit tvrzení, že institucionální proměnné mají zásadní vliv na variabilitu přílivu investic do tzv. tranzitivních ekonomik v období po všeobecném pádu socialismu na začátku devadesátých let 20. století. Role institucionálních proměnných je hodnocena pomocí indikátorů ekonomické svobody sledovaných Heritage Foundation. Zároveň jsou pro potřeby analýzy výoje kvality institucionálního prostředí v tranzitivních ekonomikách použity indikátory Evropské banky pro obnovu a rozvoj. Za použití panelových dat pro 11 tranzitivních ekonomik, a to pro období 1993 až 2013, dospívá práce k závěru, že dopad institucionálních proměnných je sice ne zcela zanedbatelný, nicméně podstatně nižší, než bychom se mohli domnívat na základě existující literatury. Za použití metody fixních efektů v kontextu obou množin indikátorů z Heritage Foundation a Evropské banky pro obnovu a rozvoj je patrné, že dopad institucionálních proměnných na příliv zahraničních investic je poměrně slabý. Naopak fundamentální makroekonomické proměnné hrají ve všech ohledech podstatně důležitější roli.

KLÍČOVÁ SLOVA: přímé zahraniční investice; institucionální vlivy; fundamentální proměnné; postkomunistické ekonomiky; panelová data; země Visegrádu; balkánské země; Pobaltí

JEL CLASSIFICATION: F21; F23; K20; H11

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Acronyms

BF	Brownfield Investment
CE5	Central Europe
CEE	Central and Eastern Europe
CEFTA	Central European Free Trade Agreement
CIS	Community of Independent States
EBRD	European Bank for Reconstruction and Development
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GF	Greenfield Investment
ICRG	International Country Risk Guide
IMF	International Monetary Fund
LSDV	Least Square Dummy Variable
MA	Mergers and Acquisitions
MENA	Middle East and North Africa
MNE	Multinational Entity
OECD	Organization for Economic Cooperation and Development
OLI	Ownership, Localization and Internationalization
OLS	Ordinary Least Squares
SEE	Southeast Europe
SEE EU	Southeast Europe EU members
SEE ^{x} EU	Non-EU Southeast Europe
TNC	Transnational Company
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
WBEI	World Bank Economic Indicators

Rigorous Thesis Proposal

Author: Mgr. Victoria Donu

Supervisor: Doc. Ing. Pavel Mertlík, CSc.

Proposed Topic: Institutional Determinants of Investment Inflows into Transition Economies

Topic Characteristics:

This thesis investigates the relationship between institutional quality and the level of investment inflows into post-communist countries. I attempt to empirically verify the argument that institutional determinants are essential in explaining the variation in investment inflows into transition economies after the demise of socialism in the early 1990s. The role of institutions is assessed using Economic Freedom indices provided by the Heritage Foundation. Consequently, to investigate the progress of institutional quality in transition economies, I further employ indicators developed by the European Bank for Reconstruction and Development. Using a panel data set for 11 transition countries from 1993 to 2013, I conclude that the impact of institutional quality on investment inflows is not negligible, yet much weaker than suggested by the existing theoretical literature. Using a fixed-effects model framework in both regression benchmarks with metrics from the Heritage Foundation and the European Bank for Reconstruction and Development, respectively, I observe that the impact of institutional variables on the level of investment was less significant than expected. Moreover, macroeconomic fundamentals appear to always play a more substantial role than institutional factors.

Scope of the rigorous thesis:

The study aims to fill the gap in the current debate on the determinants in the post-communist countries by providing an econometric analysis of the institutional factors affecting investment inflows into 11 transition economies, namely the Czech Republic, Poland, Hungary, Slovakia, Lithuania, Latvia, Estonia, Bulgaria, Bosnia and Herzegovina, Albania, and Croatia covering a time span of 21 years from 1993–2013. For a better

assessment of the specific institutional environment, I grouped the countries according to their geographical position and provided a comparative analysis of the results obtained in each group of countries. The first group consists of the Visegrad countries, i.e. the Czech Republic, Poland, Hungary, and Slovakia. The second group is represented by the Baltic countries, i.e. Lithuania, Latvia, and Estonia, and the third group consists of selected Balkan countries, mainly based on data availability: Bosnia and Herzegovina, Bulgaria, Albania and Croatia. Institutional variables have been added into the model as an aggregate and subsequently singly added to the benchmark model. Both the Heritage Foundation and EBRD indicators are employed in the model for each highlighted group of countries. I developed a model that combines traditional FDI determinants and the specific transition factors (such as privatisation level, government effectiveness, and the like), expected to play a certain role in the decision making processes of multinational companies that have invested in these countries. The proposed econometric model relies on a panel data set which aims to capture the dynamic behaviour of the parameters and provide a somewhat more efficient estimation of the parameters employed in the model.

The hypotheses are stated as follows:

H1: Higher FDI inflows are associated with a more stable, developed and dynamic macroeconomic environment with both/either reasonable production costs and/or skilled labour force.

H2: The safer and more reliable the political, economic, and social institutions in a country, the higher the FDI inflows.

Preliminary Outline:

1. Abstract
2. Introduction
3. Literature Review
   - FDI
   - Institutions and FDI
4. Empirical Assesment
   - Empirical strategy
   - Institutional variables
5. Results and Interpretations

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Author

Supervisor

Introduction

With the rise of globalisation, foreign direct investment [FDI] has become an important stimulus for productivity and economic growth for both developed and developing countries. Foreign capital can substitute a lack of domestic one, and thus countries tend to develop sustainable conditions for attracting investment inflows into their economies. Yet, although the level of FDI increases continuously, its spread among countries is very uneven. The available literature tries to explain the uneven allocation by providing empirical analyses of the main determinants specific to transition economies. Most of these investigations stress the role of market size, economic reforms and labour costs as the main factors attracting investment inflows without substantial focus on the potential role of institutions. Daude & Stein [2007] emphasise the significance of institutional factors for the FDI levels, a fact also supported by Pournarakis & Varsakelis [2002] and Fabry et al. [2006)]. By contrast, authors such as Akçay [2001] did not observe any clear relationship between institutions and the level of investment inflows.

The aim of this thesis is to fill the gap in the current debate on the main determinants of FDI inflows specifically in the post-communist countries by providing a quantitative analysis of the potential institutional factors affecting investment inflows into eleven post-communist transition countries, with a time span from 1993 to 2013. I develop a model that combines traditional FDI determinants and specific institutional indicators, all of which are expected to play a significant role in explaining the cross-country variation in FDI inflows. For a better assessment of the specific institutional environment, I grouped the countries according to their geographical position and provided a comparative analysis of the results obtained in each group of countries. The first group consists of the Visegrad countries, i.e. the Czech Republic, Poland, Hungary, and Slovakia. The second group is represented by the Baltic countries, i.e. Lithuania, Latvia, and Estonia, and the third group consists of selected Balkan countries, mainly based on data availability: Bosnia and Herzegovina, Bulgaria, Albania and

Croatia. Institutional quality is being assessed using two sets of indicators. They have been added into the model as an aggregate and subsequently singly added to the benchmark model. The first group relates to the Economic Freedom Indices provided by the Heritage Foundation, while the second one monitors issues of transition economies and is provided by the European Bank for Reconstruction and Development. The proposed econometric model relies on a panel data set which is developed in order to capture the dynamic behaviour of the parameters in the regression and to provide a more efficient estimation of the parameters employed in the model.

The empirical research provides an extension to the previous available theoretical background by developing a model with grouping the countries according to their geographical location and providing a comparative assessment based on a predetermined macroeconomic and institutional setting. Moreover, groping the countries, allowed me to assess the potential behaviour of investors and concluding that certain regions such as Balkans, are subject to a more rigorous institutional and macroeconomic assessment in comparison with Visegrad and Baltic countries where a developed institutional framework is assumed. Also, it was observed that different countries behave differently under certain conditions and the economic and institutional framework varies across regions. Due to this investors have a different approach when analysing investment opportunities in these countries. Generally, it was determined that institutional determinants have a lower impact on investment levels while the macroeconomic environment represents a strong indicator.

The rest of the thesis is structured as follows: Sections 1 and 2 summarise recent literature available on FDI, institutions and previous empirical research on the topic. Section 3 provides detailed information on the empirics employed, including a description of variables, hypotheses and model specifications. Last section concludes the thesis.

1. Theoretical Background

1.1 Evolution of Foreign Direct Investment

Foreign direct investment is conventionally considered a type of investment that includes insertion of foreign funds into an entity that operates outside the investor's country of origin. The role of FDI in economic development and growth has been debated for many years since the UN development decade of the 1960s [te Velde, 2006]. Some authors mention the positive impact it has on economic performance across countries while others state the destructive consequences due to extracting natural resources without proper compensation of the least-developed states. The levels of FDI have also varied across countries initially being concentrated mainly in economically developed states. This was continuously changing in the last decades when developing countries have started to attract a higher share of FDI denoting favourable investment policies. These policies have become more liberal at national and regional level creating a competitive environment between countries.

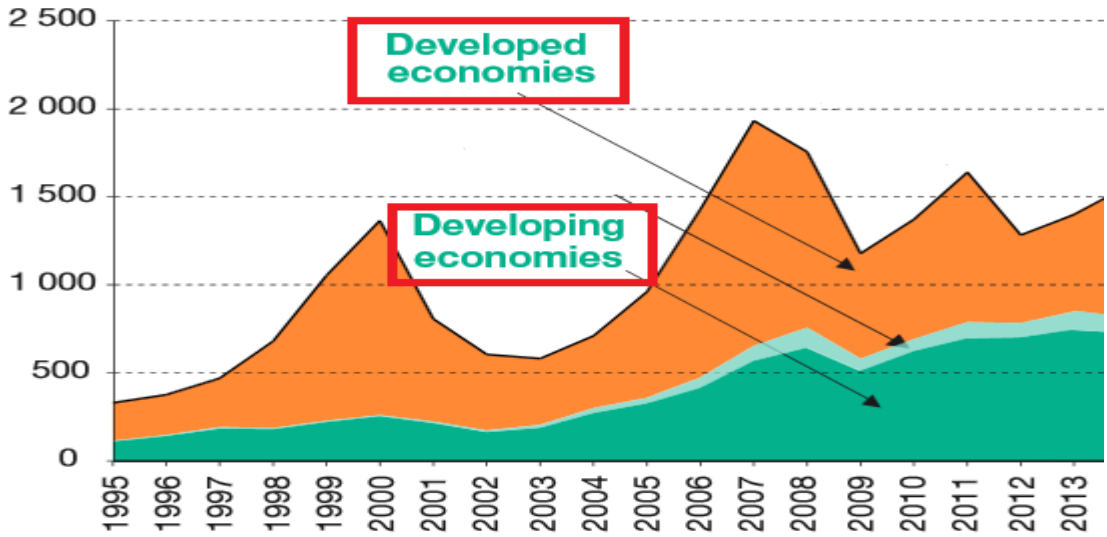
With a higher exposure to FDI, countries started to consider not only the positive and negative aspects in terms of investment volumes but also the effects that arise based on investment types, economic conditions, firm characteristics and institutional environment. It eventually led to implementation of appropriate policies and regulations for creation of technological and human resource capabilities. For example, an increase in the efficiency seeking FDI in manufacturing sector has been instrumental in transforming several production structures in some East Asian countries since 1960s which considerably influenced their growth performance [te Velde, 2006].

Implementation of specific FDI attraction policies were targeted towards local economic development and creating incentives for continuous improvement of the investment climate. Based on investment type, countries started to elaborate strategies and development programs to capture productivity spillovers from TNCs. The progress made in the last few

decades in the investment regulation environment and the increasing levels of FDI inflows, reflect the substantial progress made by the governments in order to maximize the benefits of FDI and minimize the costs related to it.

The trends have varied across countries and regions with largely depending on local policies, development and established investment environment. Throughout the years, developing countries started to attract more FDI inflows while developed countries have had a stable growth pattern [figure 1].

Figure 1 | FDI inflows in developed vs. developing countries, 1995-2013, (Bil. $USD)



Source: UNCTAD World Investment Report, 2014

The table presented below showing FDI data for the period from 1913 to 2004 summarises the trends of worldwide FDI from the beginning of the century. The inward and outward FDI, measured as a stock in relation to income, has fluctuated throughout the time [te Velde, 2006]. Both FDI inwards and outwards have experienced rapid growths, especially inward FDI to developing countries in the first part of the century, however relative to GDP, in 1995 the levels were lower than what it was at the beginning of the 20th century [te Velde, 2006].

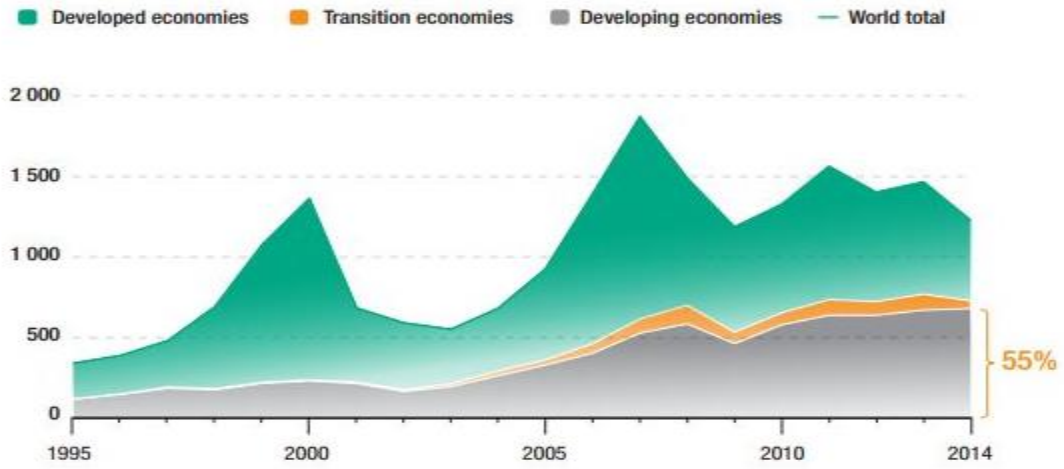
Table 1 | Inward and outward FDI, 1913-2004

	1913/14	*1930s*	*195s0*	*1970/1*	*1980*	*1995*	2003/4
Developed country				Outward stock of FDI/GDP (per cent)			
Canada	6	25	6	7	9	20	37
France	23	10		5		25	38
Germany	11	5		3	4	10	31
Japan	11	47		2	2	5	8
Netherlands	82	28		35	25	47	94
UK	49	18	9	17	15	28	65
US	7	8	4	8	8	18	17
Developing countries				Inward stock of FDI/GDP (per cent)			
Average colonies	42	61	35	14		19	
Average independent	36	37	17	9		14	
Average	40	51	30	13		18	26.4
Latin America					4	12	38
Asia					4	12	24
Africa					8	15	32

Source: D.W te Velde, 2006

Generally since the 1970s, a significant increase in FDI inflows has been observed in the world economy. Moreover, the growth of FDI inflows has exceeded the growth of world trade and world output [Bissoon, 2011]. In the last few years, FDI inflows fell considerably however most can be explained by the fragility of the global economy, geopolitical risks and uncertainties for investors. Despite the decline in the investment inflows, the macroeconomic variables such as GDP, trade balance and employment grew. [World Investment Report, 2015] [Figure 2].

Figure 2 | FDI inflows, global and by group of economies, 1995-2014 (Bil. $USD)



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

In terms of global flows of FDI, the period 2004 to 2010 can be split into two periods. The period between 2004 and 2007 can be characterised by an increase in global FDI flows by exceeding the symbolic limit of one trillion $USD in year 2006. This barrier was first crossed in 2000 however after the terrorist events in September, 2011 in United States and numerous climate instabilities, the investment levels have considerably decreased [Sarbu and Mazur, 2014]. In 2007, the level of FDI exceeded 1.9 billion $USD followed by a sharp decline starting in 2008.

The time framework of 2008 and 2009 has registered record low levels of FDI inflows due to dramatic impact of the global financial crisis. The decrease accounted for 40% and reached a total level of one billion $USD equivalent to the levels registered in 2000 [Sarbu and Mazur, 2014].

Most countries and regions were severely affected by the financial turmoil causing sharp falls in investment inflows levels. In Africa, FDI inflows have been reduced due to decrease in demand and fall in consumer prices. The regions of Southeast Asia and parts in South America experienced a significant reduction due to shrinkage in volume of mergers and acquisitions. The latter factor has been an impediment also in the Southeast Europe in the context of steady increase in the levels of FDI.

According to Sarbu and Mazur [2014], the main factors which contributed to the decrease of investment inflows include significant reduction in demand; difficult credit conditions; the overall economic environment and recession most countries were experiencing; major decrease in the value of assets as a result of the collapse of the capital markets. All these factors contributed to a period of general stagnation due to persistent uncertainties, overall economic fluctuations and shift in the FDI distribution.

Starting 2010, the period is known as the recovery time with a registered stable rise in investment inflows due to growth in domestic demand, intensification of international relations between countries and the improving economic situation. In 2012 and 2013, the EU's share of investment inflows has dropped below 20% and the volume of 239 billion

$USD was roughly equal to the one in US and China. By contrast, the share of BRIC[1] countries has reached 29.2% in 2013 [Vetter, 2014].

In 2014 the global FDI levels decreased by 8% due to the fragility of the global economy, geopolitical risks and policy uncertainties [World Investment Report, 2015]. The flows to developed countries dropped 14% and to the European Union increased by 13% in 2013 however representing only one third from the FDI level registered in 2007.

Meanwhile, for transition economies, increase in FDI inflows is associated with improvement in the country's economic growth strategy. During the past 10 years, transition economies have been among the main hosts for FDI worldwide. EU countries have the largest inward FDI stock, accounting for more than two thirds of the total levels [World Investment Report, 2014]. Statistics shows that investments were mainly concentrated in domains like information and communication, electricity, mining and quarrying.

In Southeast Europe, most European investments are driven by privatisation of state-owned enterprises, low production costs and prospects of association or membership with the EU [World Investment Report, 2014]. Although, the FDI levels in this region decreased, especially in 2014, due to circumstances such as financial turmoil, policy uncertainties and regional conflicts, a positive trend is expected in the upcoming years [Figure 3].

Figure 3 | FDI inflows, by regions, 2012-2014 (Bil. $USD)

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

[1] BRIC group includes Brazil, Russia, India and China.

Bevan & Estrin [2000] stated that the main problem of these economies is the lack of capital and technology necessary to spur growth while there are sufficient stocks of human capital. Considering this aspect, the region became more eager and open to foreign investors after the political changes in the early 1990s. Their deteriorated economic conditions led them to begin massive restructuring in order to attract FDI. Therefore, foreign companies were expected to provide assistance through various channels. One of them would be competitiveness improvement via innovation in products, production processes and organisational issues. Secondly, it would provide financial support in order to reduce the existing debt burden and, finally, it would improve the social imbalances concerning poverty, job losses, and incomes [Pournarakis & Varsakelis, 2002].

In the last years, massive FDI inflows were observed in exactly those regions, stressing the fact that these economies have made significant progress. The uneven distribution can be determined by localisation advantages, political, social and economic progress, which might have influenced the decision making process in a positive manner. Economies in transition start to earn credibility, which consequently gives an impulse to these countries to continue their socio-economic and infrastructural development. It is a win-win situation when host countries benefit from financial assistance and source countries are provided with advantageous incentives. In the recent years the level decreased substantially due to sanctions imposed on Russia, regional conflict in Ukraine and negative prospects on the region.

At this stage, it is unclear if the levels of FDI will continue to increase. Current negative economic perspective and geopolitical risks will negatively influence investment inflows. On the other hand, the demand boosting effects of lower oil prices and proactive monetary policy in the Eurozone, will favourably affect FDI inflows [World Investment Report, 2015].

1.2 Types of Foreign Direct Investment

1.2.1 Greenfield vs. Brownfield Investment

We differentiate among several investment strategies; one of them is known as "brownfield" or mergers and acquisition investment [MA]. This is based on a company acquiring existing facilities to initiate a business activity in a certain country. The acquisition of company shares is regarded as FDI as soon as it exceeds 10% therefore FDI does not necessarily imply full control of the foreign affiliate. Ownership of less than 10% of the company's shares is known under the term of portfolio investment [World Investment Report, 2015]. The opposite strategy is "greenfield investment" and it consists of developing new equipment and starting an activity from ground zero. It can also occur due to a joint venture with a local company [World Investment Report, 2015]. It is usually accompanied by providing long-term job opportunities for local people.

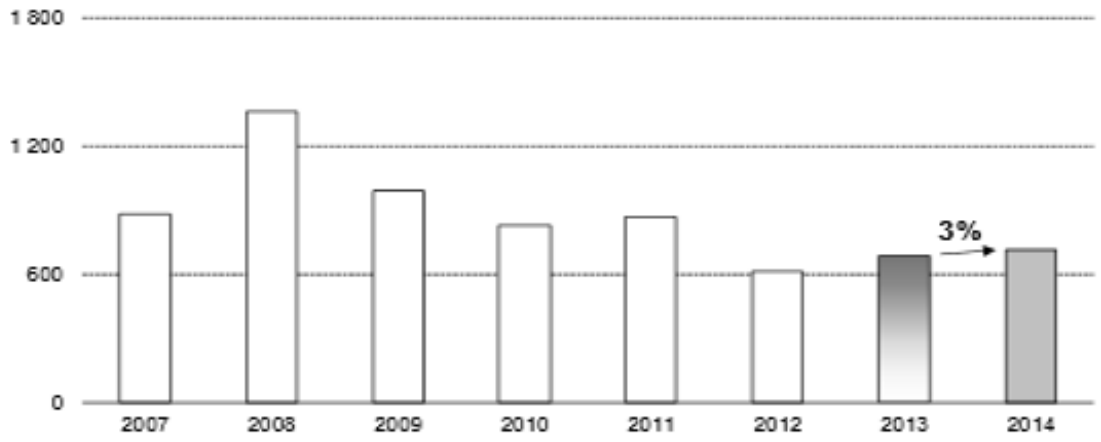
The theory on mode choice typically starts at firm level where the entity decides based on potential costs and benefits. Empirical evidence on mode choice has two main themes. The first one focuses at the choice of firm using a discrete dependent variable methodology [Davies et al. 2015]. For instance, Drodendijk & Slangen [2006] used a dataset for Dutch MNEs to assess the cultural distance in the choice mode. They concluded that greater cultural barriers, will attract more GF investment over BF. The second approach uses aggregate FDI, mostly derived from UNCTAD which provides the data on regional patterns of GF and BF investment. In this manner, Globerman et al. [2004] analysed how outward and inward FDI vary with gravity variables for both types of investments. Main finding is that investment inflows are mainly attracted by larger economies, with an emphasis on BF investments.

Following, Davies et al. [2015], all these theories lead to several conclusions. Firstly, both types of investment respond comparatively to the traditional gravity variables. Secondly, it is expected that brownfield investments will be targeted towards high-income countries since it originates in such countries as well. Thirdly, it is anticipated that BF investments are sensitive in destination countries which experience financial instability and low institutional

quality. Lastly, it is expected that cultural or physical distances impact GF less than MA investment and MA is more responsive to exchange rates shocks [Davies et al. 2015].

Recent statistics shows that GF investment levels increased by 3% in 2014 [Figure 4]. Comparing among geographical regions, developing countries registered an increase by 7%, developed countries remained flat with 1% decrease and transition economies have registered a 10% decline. Thus developing countries stand as main hosts of this type of FDI with their share accounting for three quarters from the total levels of investment [Global Investment Trend Monitor, 2015].

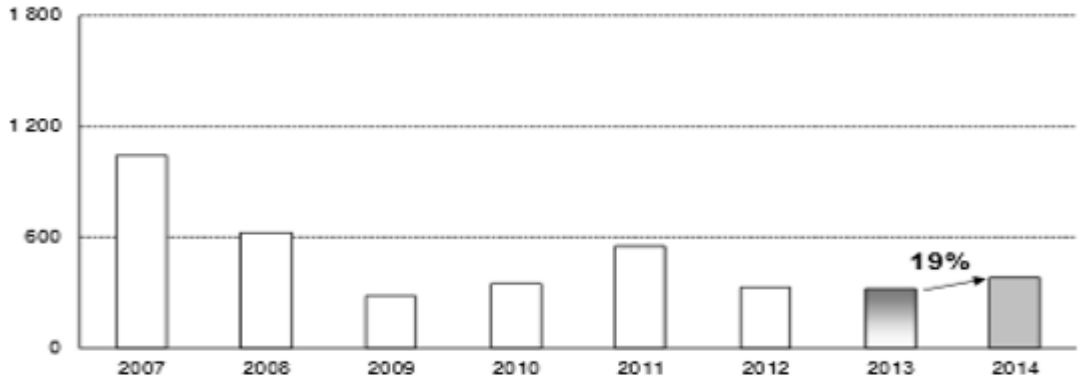
Figure 4 | Value of greenfield investments



Source: Global Investment Trends Monitor, 18th Edition, 2015

Cross-border transactions have rebounded considerably in 2014 with an increase of 19%, the highest since 2011 [Figure 5]. This factor only demonstrates that MNEs gained confidence to continue the acquisition processes and planned strategic deals. Statistics shows that regions that have contributed the most from this type of investment are developing Asia and Europe while the biggest decline was recorded in Latin America [Global Investment Trends Monitor, 2015].

Figure 5 | Value of brownfield investments

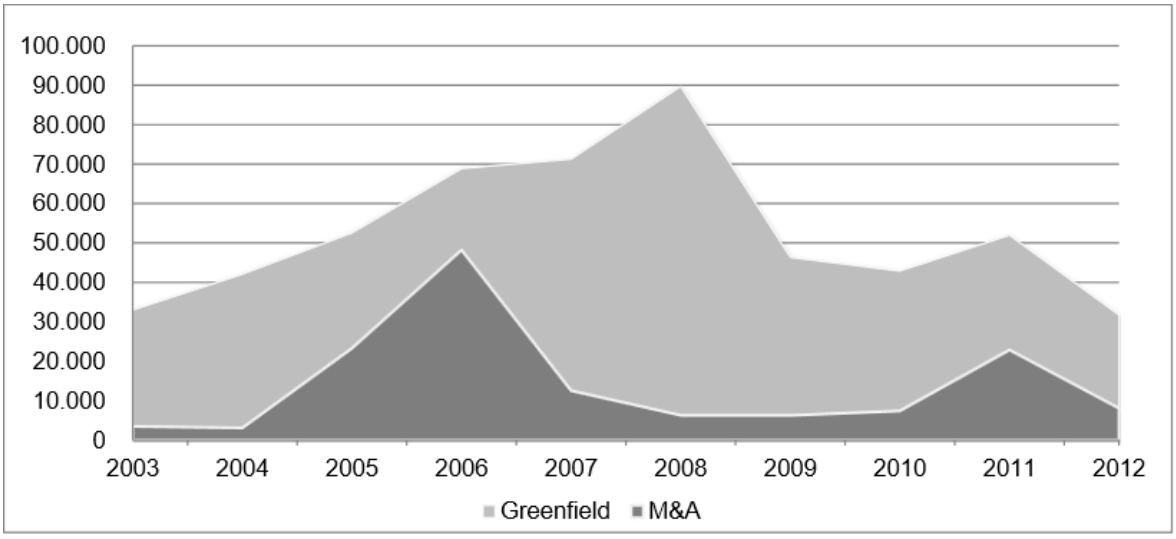


Source: Global Investment Trends Monitor, 18th Edition, 2015

In the process of adoption of market economies, transition economies have attracted more MA as at that time it was seen as a cheaper alternative for investors to enter the market [Mockevičius, 2014]. Due to massive privatisation, firms could be acquired under market prices with the previous state-owned capital thus, at the beginning of the transition process, MA investment were seen as more profitable. On the other hand, GF investments were not seen as a common practice at the beginning of the 1990s however it picked up along with the enhancement of the macroeconomic and institutional framework of a country.

Based on figure 6, we observe a clear dominance of the GF investment in CEE region in the late 2000s with a peak registered in 2008. This was caused by the general setup that GF are more resistant to economic turmoil than MA activities, which tend to correlate to business cycles [Mockevičius, 2014]. Theoretical sources also mention that MNEs motives to enter a country's market varied depending on certain conditions. For example, very low or very high competition played an important role for GF entry while intermediate level of competition in a specific sector, favoured MA entry [Műller, 2000].

Figure 6 | Total greenfield vs. brownfield investment in CEE, (Mil. $USD)



Source: World Investment Report, 2013

From theoretical point of view, both type of investments have positively contributed to the transition process of the region. Factors such as technology transfers and telecommunications contributed to a solid business performance and enhancement of investment policies. Moreover, exposure to both GF and MA created positive externalities for local companies such as international cooperation and skills improvement due to the process of mutual knowledge transfer.

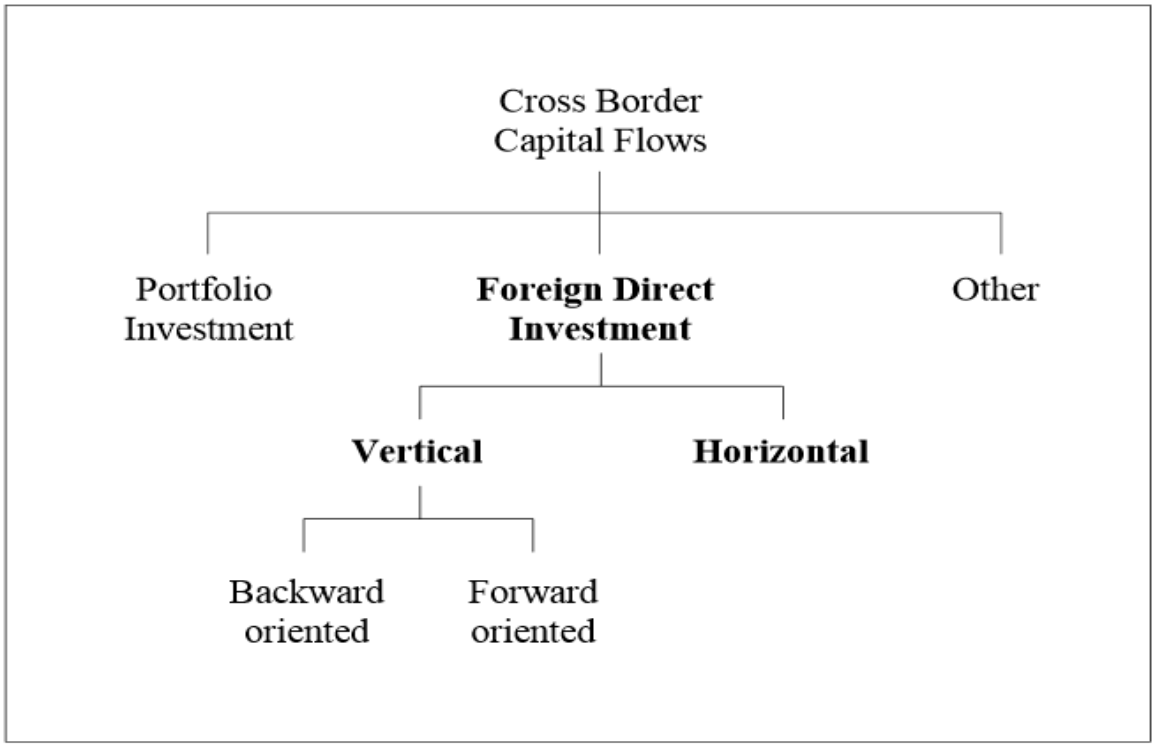
1.2.2 Structures of Foreign Direct Investment

Grčic & Babić [2003] stated that FDI has specific features in comparison with other forms of capital and financial transactions and unlike conventional loan it is more based on investors' long-term interest in the area in which they invest. Generally, firms invest in countries with favourable economic and political environments in order to minimise transaction costs and maximise profits.

There are two main reasons why firms go multinational: to serve a foreign market and to get lower cost input [Protsenko, 2003]. Based on this description we can distinguish among horizontal, platform, and vertical FDI; however, the differences between these types are often unclear in practice. Demekas et al. [2005] stated that the horizontal FDI is targeted

towards the local markets of the host country when the production is considered more profitable, thus source countries, instead of considering exports, expand their activity on the host country market. On the other hand, vertical FDI is related to fragmentation of production processes geographically since it can become more profitable to split the production chain if the input requirements vary. Accordingly, market size would represent one of the main determinants for horizontal FDI and costs of labour for vertical FDI. Although Demekas et al. [2005] suggest that horizontal FDI are observed on a large scale in comparison with vertical FDI, both types can be encountered simultaneously. As shown in figure 7, vertical FDI consist of two categories: forward and backward vertical FDI.

Figure 7 | Structure of international capital flows



Source: Protsenko, 2003

In case of backward oriented FDI, MNEs establish their own supplier of input goods which delivers inputs to the parent company. Forward oriented FDI assigns an affiliate which draws inputs from the parent company for own production thus remaining after the parent in the

production chain [Protsenko, 2003]. Finally, platform investment serves purely for re-exports to third countries.

Besides the recorded progress, there are certain characteristics that investors take into account when deciding to invest in a specific region. According to Dunning [1988], there are several factors that attract or restrain the level of FDI inflows. He provides a theoretical framework where it is argued that FDI are determined by three sets of advantages: ownership, localisation and internationalisation, while it is also referred to as Dunning's OLI paradigm. Ownership advantages refer to the ability of a company to hold assets and products that cannot be easily duplicated by competitors or possession of sufficient financial resources required to enter specific closed markets. Porter [1980] emphasized that in order to provide a firm with competitive advantage in entry-mode selection process it is vital to possess unique and sustainable ownership advantages. In the OLI paradigm there is a stated difference between transaction cost minimising advantages and asset advantages. The most known asset advantages include possessing firm-specific technologies, patents and management knowledge while the first category relates to capturing transactional benefits while operating inter-related assets located in different countries [Mehmed & Osmani, 2004].

Localisation advantages refer more to the issues regarding the market under consideration, market risk, market potential, market expansion available to all firms, etc. [Dunning 1988]. The main aspect of localization advantages is the fact that they influence the expected profitability of foreign production in relation to export. The most commonly evaluated localization advantages include transportation costs, trade barriers, and sources of supply and factor endowments [Mehmed & Osmani, 2004]. Researchers like Pournakis & Varsakelis [2002] consider CEE a region that exhibits more localization advantages. From the supply side they offer cheap labour force and corporate taxation and from the demand size they offer market growth and good social infrastructure.

Finally, internalisation advantages arise with the costs associated with choosing a hierarchical mode of operation over an external mode [Dunning, 1988]. These are the transaction costs and due to the fact that they cannot be calculated accurately before the

international operation has been established, many studies exclude this factor [Dunning, 1993].

It is stated that the precise configuration of the OLI paradigm is strongly contextual [Dunning, 2000]. It will reflect the economic and political framework of the country and of the investing firms, the industry and nature of activities plus characteristics of individual firms [Dunning, 2000]. Consequently, Dunning developed a framework concerning MNEs and their strategies and motivations when investing abroad. According to Dunning [1993], MNEs can be classified in three main categories: market seekers, natural resource seekers and efficiency seekers.

Market seekers take into consideration market size and market growth of the host country. The process involves replication of a production technology in the host country. Such MNEs are mainly motivated by the emergence of leading markets or by the existence of high transaction costs thus preferring "tariff-jumping" local production to exporting [Iammarino & McCann 2013]. The literature highlights four main reasons why MNEs engage in market-seeking investment. The first is that main suppliers and customers have expanded their foreign facilities therefore in order to maintain and retain their business they should do the same [Dunning & Lundan, 2008]. The second reason is that in order to expand the business line, products needs to be adapted to the local needs and preferences. Foreign companies must also get acquainted with the local legal requirements, cultural differences and business customs before engaging in any investment process. In order to have a prosperous activity and being able to handle local competition, companies tend to adjust to these needs which contribute to their expansion of the business, profitability and growth. The third reason refers to transaction costs which are lower than supplying them from the distance. Firms which are located further from important markets are likely to engage in market-seeking investment. The forth reason relates to MNEs desire to have a physical presence in leading markets worldwide in particular where competitors are present [Dunning & Lundan, 2008].

Resource seekers, on the other hand, are more interested in the resources available that are either not significant in the home country or are available in a host country at lower prices. These enterprises are interested in acquiring specific resources of high quality at a lower

real cost. Resource-seekers follow the trend of exporting the final production to developed countries. We differentiate three types of resource-seekers. First group includes physical resource seekers. These are primary producers and manufacturing enterprises which aim for cost minimisation and security of supply source. Second group seekers relate to supply of motivated and cheap skilled labour. The industries which often engage in such investments are from manufacturing and services sector. The third type of resource-seekers is driven by the need to acquire technological expertise [Dunning & Lundan, 2008].

Last but not least, efficiency seekers rely more on the quality of institutional arrangements, economic policies, demand patters, market structures that they consider when concentrating production in specific locations that would be able to supply multiple markets. The main motivation for MNEs is to account for already well-established resource-based and market-based investment in such a way that both investing company and host country benefits from the collaboration. Efficiency-seeking FDI is of two types. The first one is to take advantage of differences in availability of various factor endowments. This explains the division of labour within MNEs production lines. The second kind is more uniform where the investment takes places in countries with similar economic structures and income levels. The focus is on taking the advantage of the economies of scales and on differences in consumer tastes [Dunning & Lundan, 2008].

The two less described categories in the existing literature relate to knowledge seeking FDI and risk reduction seeking FDI. Knowledge seekers tend to maintain and develop a competitive environment in certain products and in various geographical positions. This is achieved by accumulating relevant knowledge, capabilities and expertise creating competitive advantage in respect to other companies. This aspect can create unclarities due to the fact that both Dunning & Oxelheim [1993] classified the factor of acquiring knowledge and capabilities under the resource seeking motives however Mehmed & Osmani [2004] highlight the differences between these two categories. They conclude that knowledge seeking FDI are specifically designed to acquire new asset advantages while resource seeking FDI focus on attribution of new location advantages.

Risk reduction seekers target reducing the corporate risk associated with negative changes in macroeconomic variable, changes in supply and demand in the national markets. These type of investments can be defined as internal hedging activities performed in order to lower potential corporate risk [Mehmet & Osmani, 2004]. One example can serve companies which move their production chain from unfavourable to favourable location in order to control for the exchange rate risk.

However, even if at a first glance it may seem that transition economies mainly attract market-seekers, Pournarakis et al. [2002] argued that the presence of natural resources and cheap labour force do not seem to be the main drivers of FDI nowadays. They stated that MNEs are slowly shifting to efficiency-seeking FDI, therefore the emphasis is now more on quality and stability. Even though inexpensive labour might not always be the main driver for investors, Botrić & Škuflić [2006] state that FDI into developing countries consist more in knowledge transfer using the production already present in the host country. Nevertheless, the authors mention that labour market conditions of a country are of significant importance. Besides inexpensive labour, one should also take into consideration productivity and quality of the labour force.

Recent literature highlight that CEE region remains an attractive region for many investors due to emerging economies and access to European market [Allen & Overy Report, 2011]. They state that main trends in FDI relate to the move from traditional manufacturing to service industries i.e. banking and IT and the change from predominantly greenfield and brownfield investments to reinvesting profits in the region by the existent investors. Nevertheless, it all comes down to the fact that investors will decide to reallocate their production bases and invest in a certain region if it makes a sound financial sense.

Because of the growing importance of FDI in the world economy, especially in transitional countries, a vast empirical literature on FDI determinants has been developed. Still, the literature has established market size as the most significant factor upon which investors base their investment decisions, a fact confirmed by many [Carstensen & Toubal, 2004; Janicki & Wunnava, 2004]. Meanwhile, authors such as Garibaldi & Mauro [2002] and Bevan & Estrin

[2000] have found out that determinants such as labour costs, trade openness and macroeconomic stability explain the level of FDI inflows into these countries the best.

1.3 Institutions and FDI

Previously, a country's institutional framework was not much taken into consideration when analysing the level of FDI inflows. In institutional economics, the term "institutions" has a variety of meanings. As North [1990] puts it, *"They provide rules, constraints and incentives that are instrumental for the governance of exchange. They consist of both informal constraints (sanctions, taboos, customs, traditions and codes of conduct) and formal rules (constitutions, laws, property rights)"* [North, 1990]. Generally, the institutional framework consists of three components: formal rules, informal rules and enforcement mechanisms. Formal rules are considered to be the written rules of a society. Examples of formal institutions could be regulation of banks, imposition of tariffs and quotas, or laws governing contracts [North, 1990]. On the other hand, informal rules are the unwritten rules that govern the social life. These include norms of behavior and codes of conduct. The third aspect of the institutional framework is enforcement - this aspect determines the effectiveness of the rules.

Another definition of institutions is provided by Ostrom [1986],*"Institutions can be defined as the sets of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained, what aggregation rules will be used, what procedures must be followed, what information must or must not be provided, and what payoffs will be assigned to individuals dependent on their actions"*. In this case, the concept of arena has a similar meaning to North's concept of a game [Kunčič, 2014].

Ali; Fiess & MacDonald [2008] found that good institutions with efficient rules of enforcement tend to substantially decrease the costs of doing business. Among other things, institutional determinants depend on the efficiency of government policy implementation and also on features of political and social entities. These characteristics include the level of political and social risks, transparency of regulatory frameworks, political stability and effective property rights protection, rule of law, lack of corruption and efficient banking

environments. These are considered significant factors since lack of protection of property rights may lead to expropriation, which may decrease the chances of companies investing in a certain area. Corruption creates conditions for unfair competition, which creates barriers for investors. The taxation system is also taken into consideration since high taxes may hamper growth and productivity, and discourage investment.

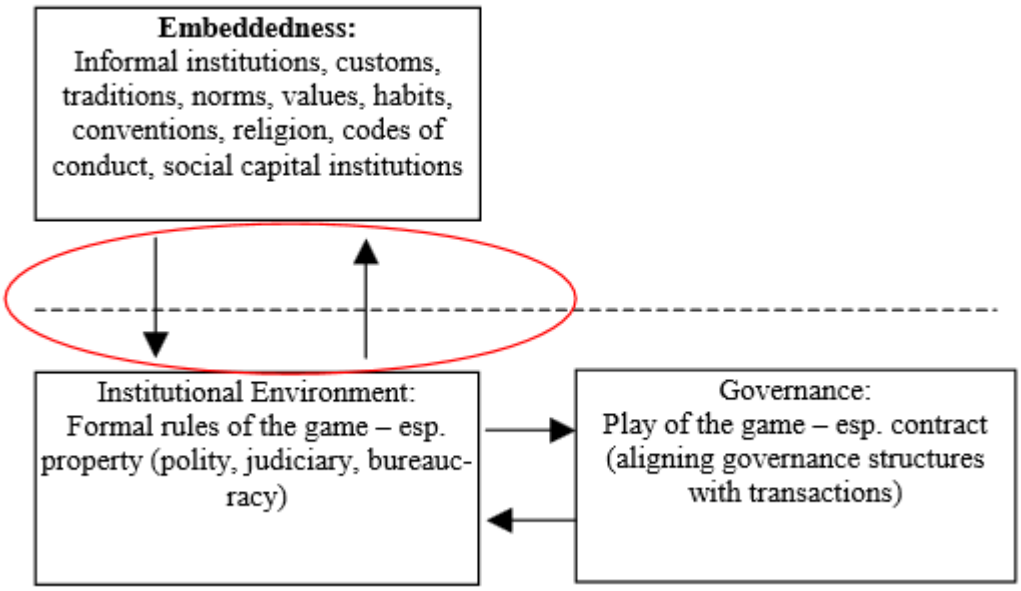
The more specific categorization of institutions is presented as follows: by subject category, by degree of formality and by degree of embeddedness. Based on the areas they regulate or subject category, institutions can be classified in legal, economic, political and social. They matter the most when investors decide to expand their activity in a certain area. Legal institutions are the most widespread institutions since any form of legislature can be found in most social interactions. They vary from public or state legal institutions to private entities based on contracts covering a wide range of legal issues [Kunčič, 2014]. Political institutions are broadly represented by political parties, voters and electoral rules. Economic entities are complex institutions needed to establish a functional working market. Social establishments rely more on norms and civic cooperation and are similar to the concept of informal institutions [Kunčič, 2014].

Dumludang et al. [2009] in their research assessed the role of each entity concluding that economic institutions are responsible for the degree of property rights protection and enforcement of contracts while political institutions put more emphasis on regulation of the political power and social institutions refer more to the issues of social environment. Classification based on degree of formality relates to the formal and informal institutions highlighted earlier in the text. Formal institutions comprise constitutional and operating rules while informal entities are aimed towards behavioral rules [North, 1981].

After the fall of socialism, transitional economies from CEE have progressively implemented the process of institutional transformation with a relatively rapid enactment of economic and political reforms [Gatzweiler, 2003]. Throughout the time, the progress recorded in the process of sustainable development of institutions has been less rapid than expected due to the varying frequencies in the change of institutions at different levels of society [Gatzweiler, 2003].

The question thus arises how informal institutions such as religion, norms and value are influencing the legal base of a society such as formal institutions. In figure 8, Gatzweiler [2003] presents the framework and possible interrelation in institutional analysis framework. The author relies on North's [1990] argument that the tensions between altered formal and persistent informal institutions produce outcomes that influence the way economies change going further. Thus, if we assume that the institutional framework is already established, institutions at the embeddedness level also need to adapt to the new settings. For changing institutions at the embeddedness level, the process of learning is vital [Gatzweiler, 2003].

Figure 8 | Linkage between formal and informal institutions



Source: Gatzweiler, 2003

Mummert [1999] is discussing two types of institutional reforms being implemented by transition economies. The first one refers to the "market order-oriented institutional reform" and it relates to establishment of economic systems that allows the emergence of spontaneous market order. The second type considers formal institutions as main regulators and is known as "task-oriented" reform. The main characteristic of these specifications is presented in the table below.

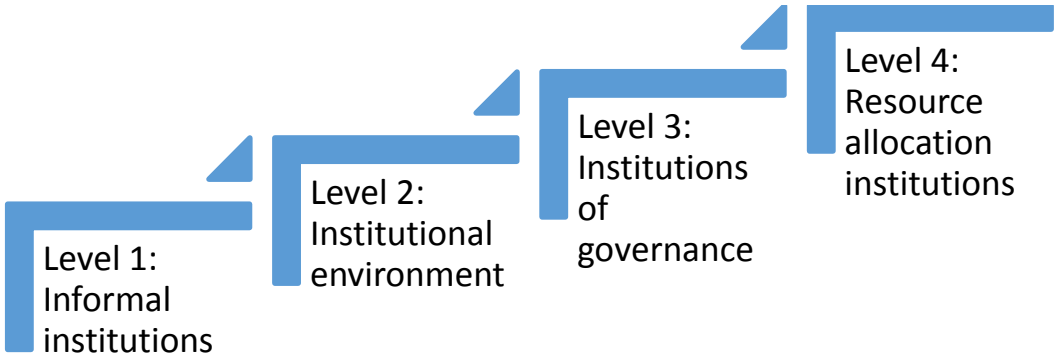
Table 2 | Types of institutional reforms and their characteristics

Market order-oriented institutional reform	***Specific task-oriented institutional reform***
• Institutions allow for market coordination to evolve spontaneously	• Formal institutions are targeted towards specific tasks
• Institutions merely forbid the use of certain means	• Formal institutions are supposed to be very specific
• Institutions do not regulate the fulfilment of certain tasks	• Rules should be followed and should describe the end individuals should pursue
• Individuals are free to pursue their own aims	• Formal institutions sometimes describe the means the individuals are allowed to use
• Rules do not prescribe any specific tasks	• The efficiency of specific tasks should be ensured
• The comparative performance of the economic process is what really matters	• What matters is how compliance to formal institutions is created

Source: Gatzweiler, 2003

The classification based on degree of embeddedness, known as Williamson's classification of institutions, tries to describe the existent linkage between formal and informal entities related to the concept of embeddedness [Kunčič, 2014]. Under this categorization, four level types of institutions are presented [figure 9].

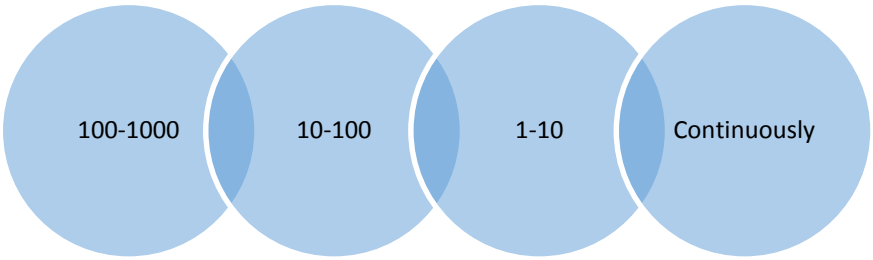
Figure 9 | Categorisation of institutions based on degree of embeddedness



Source: Author's presentation

The first level describes informal institutions such as religion, customs and norms. Level two presents the institutional environment based on formal rules such as bureaucracy and property rights. The third level comprises institutions of governance where governance structures are associated with relevant transactions and lastly, forth level is associated with rules that govern resource allocation and employment. The latter entities use neo-classical marginal principles to maximize specific objectives [Kunčič, 2014]. The frequency of change for the first level is from 100 to 1000 years; 10 to 100 for the second level; 1-10 years for the third while changes to the forth level occur on continuous basis [Kunčič, 2014] [figure 10].

Figure 10 | Frequency of change for embedded levels



Source: Author's presentation

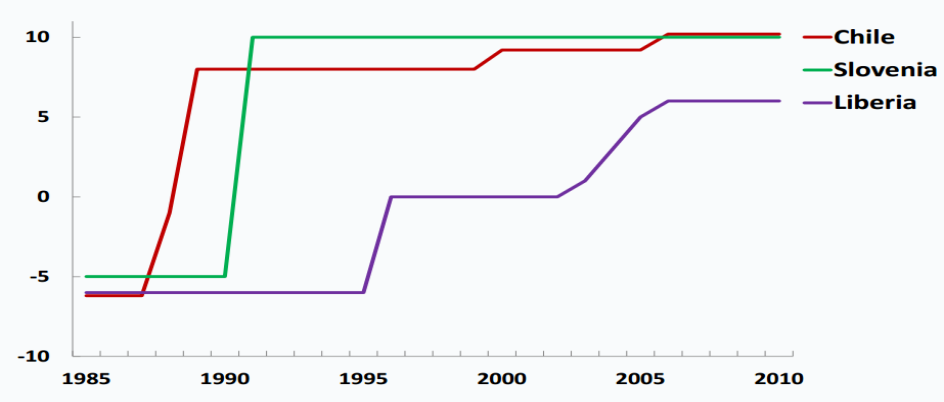
Since the levels are embedded in each other, each rank is constrained by the previous one. Higher levels can influence the lower ones however the first compelled relationship has a bigger impact [Kunčič, 2014].

Therefore, institutional determinants depend on the efficiency of government policy implementation and also on characteristics of political and social entities. These characteristics include the level of political and social risks, transparent regulatory framework, political stability and effective property rights protection, the rule of law, lack of corruption and efficient banking environment. All these features encourage investment and spurs productivity. For instance, political stability and efficiency of the judiciary system is supposed to increase the credibility of investors that their property rights will be protected. This is considered a significant factor since lacking the protection in property rights may lead to expropriation which may decrease the chances of companies investing in a certain area. Level of corruption creates conditions for the unfair competition development which creates barriers for the investors. The taxation system is also taken in consideration since high taxes are associated with growth inhibition, productivity harm and investment discouragement. A flexible taxation system might encourage investors and remove existent barriers towards productivity growth process. Economic integration can also have a positive and dynamic effect on FDI inflows.

Considering the democratic and political regime framework worldwide, Daniel Kaufmann, at the annual conference of institutional development held in Cairo, Egypt in 2012, has discussed about the division of developing economies in three categories. First category includes the improving/performing economies which are considered to have achieved a substantial improvement in institutional quality terms. The second group belongs to the stagnating economies which across time did not present any improvement in the political and democratic framework of the country. From the last group, countries that emphasize a deteriorating institutional dimension are included. They are mentioned as Deteriorating Group as they underline the unsatisfactory institutional development which contributes to a decline in their further economic, political and social growth.

A graphical representation of the three groups described above can be observed in the figures below. We notice a conglomeration of countries from various parts of the world. The charts are mostly represented by African countries which are prevalent in the last two groups of unsatisfactory institutional determinants. Slovenia is among the leading countries of the Improving Group suggesting a positive trend in their institutional development plan.

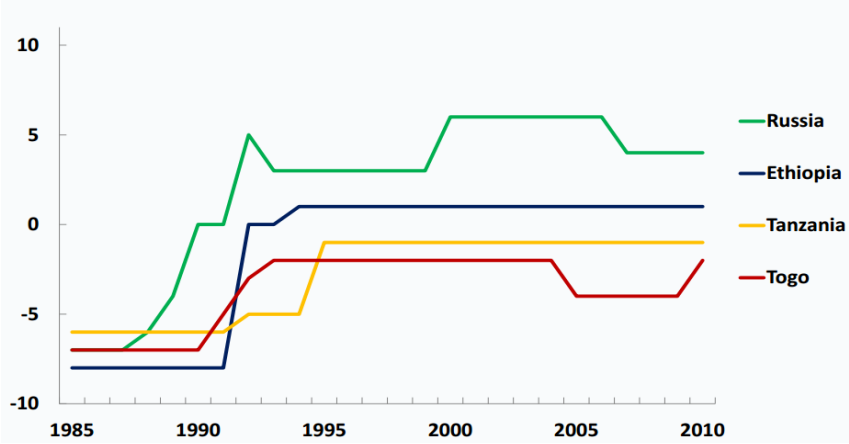
Figure 11 | Institutional performances of selected countries from Improving/Performing group, 1985-2010



Source: Polity IV Project, Central Intelligence Agency

One interesting finding is the fact that Russia, which is a developing country, has registered insignificant institutional development progress. This can be interpreted as a result of persistent bureaucratic and corruption elements in their economy which creates a blockage for institutional development.

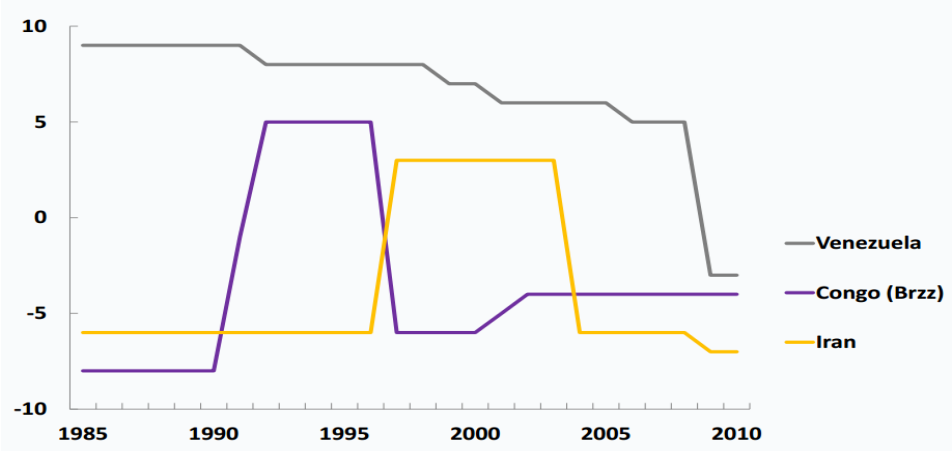
Figure 12 | Institutional performances of selected countries from Stagnating group, 1985-2010



Source: Polity IV Project, Central Intelligence Agency

Even though CEE region is not present in the charts, it should not be interpreted as being completely excluded from the dataset. The fact that Slovenia is part of the Performing Group makes us believe that other countries from CEE are included due to the localization factor.

Figure 13 | Institutional Performances of selected countries from Deteriorating group, 1985-2010



Source: Polity IV Project, Central Intelligence Agency

Among the earliest classifications of transitional economies from Central and Eastern Europe based on institutional development was proposed by Tihanyi & Roath in 2002. They have proposed a categorization of these countries into four groups based on two sets of institutions. The emphasis is put on the role of market development and regional integration and the effects of these two major sets on technology transfer [Tihanyi & Roath, 2002]. Market development is a vital component, in particular for CEE countries since the transformation process from centrally planned economy to market economy urged for reestablishment of many economic structures. These included new regulations of business activities and transactions, increasing exposure to market economies and dealing with tendencies and behavior of management in these transforming economies which may not have completely overcome these changes at psychological level [Tihanyi & Roath, 2002]. Regional integration after the fall of socialism was especially important under the conditions of continuous expansion of the European Union. Being a member of the EU can offer significant benefits such as free flow of goods and services and factors of production. The regulations to enter the EU are rather strict therefore the aspiring EU members must fulfil certain criteria before joining the European community. Based on these two sets of indicators, the CEE countries were grouped in four categories [figure 14].

Figure 14 | Market development and regional integration of the transitional economies

Source: Tihanyi & Roath, 2002

The figure summarizes the groups of countries which advanced and less advanced institutional development. The group with the most developed institutional environment included Czech Republic, Hungary and Poland etc. which was characterized by advanced market development and regional integration [Tihanyi & Roath, 2002]. The share of private sector already in 2002 was more than 80%. The group consisting of Bulgaria, Romania, Croatia and Slovakia were considered as potential members in the process of EU enlargement since they did not meet all criteria established by the European regulations. The last two categories related to the countries with weak institutional development and severe consequences in the process of transition from central planned to market economies. In respect to the group including Russia and Ukraine, the authors specified that integration in EU may not be a viable option for these countries [Tihanyi & Roath, 2002].

After more than two decades, transition economies have achieved substantial progress in restructuring their institutional environment. The first two groups described in the previous figure, have become members of EU and their institutional framework has improved considerably due to massive reforms and continuous progress towards becoming open

market economies. These reforms can be split into three main categories: [a] stabilization and structural reforms; [b] enhancement of the regulatory framework; [c] regional cooperation and industrial competitiveness [World Investment Report, 2012].

Focusing on Southeast countries, the region has been working on upgrading their institutions and investment policies in order to create a liberal regime to attract FDI. Another important factor was signing several important treaties for international investment cooperation. One of them was CEFTA, which was signed in 2006 (with the exception of Croatia who signed it in 2003), creating opportunities for a closer collaboration with the EU and establishment of long-term growth. This was an important step for the region due to their continuous efforts as potential EU members. The CIS countries have also been exposed to a number of regional agreements. The most notable one is the Euro Asian Economic Community which created incentives for a closer collaboration between involved parties. Moreover, the collaboration within this treaty in transportation and energy would foster intraregional FDI through the participation of these countries in common hydroelectric energy projects in Central Asia [World Investment Report, 2012].

1.4 Development of Institutional Framework

With the considerable progress made in developing a stable macroeconomic environment, the challenge was set to improve the institutional frameworks of the countries. As a precondition for sustainable growth, governments were facing the question of how to build better institutions and how to create incentives in order to promote mechanisms for stimulating institutional development. Generally, economic institutions are closely connected to political institutions since the later have the ability to distribute the political power which contribute to formation of economic entities and distribution of resources. Consequently, economic institutions have certain impact on various groups of the society thus influencing political entities [IMF World Economic Outlook, 2005].

Changing the institutional setting in a country can be quite challenging due to the complex interactions between economic and political entities in combination with the existent

historical and cultural environment. It is vital to address the causes of institutional weaknesses otherwise consequent reforms may have not the desired effects on institutional outcomes. In the past two centuries, institutions were subject to various reforms and changes however the recorded progress varied across countries. Generally, the regions followed either a good or bad institutional development path which consequently determined their level of progress. A positive pattern was observed in countries such as Canada, New Zealand, and Austria etc. while negative records were highlighted in some countries from Eastern Europe, Latin America and Russia [IMF World Economic Outlook, 2005]. The negative outlook is generally influenced by the persistent overall setting of poor institutional environment combined with modest economic performance which eventually leads to reinforcement of each other.

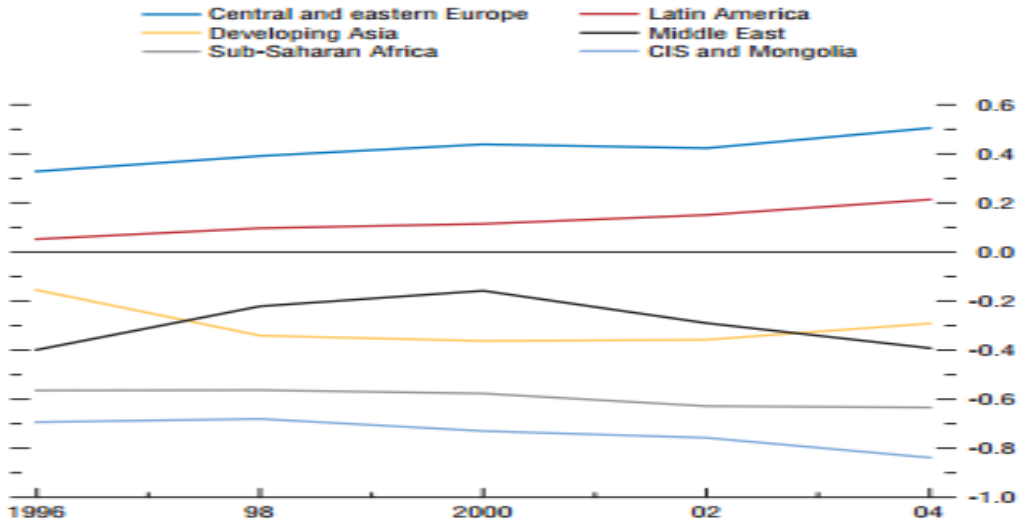
The divergent paths of countries were analysed throughout the time and the phenomena, based on IMF's World Economic Outlook [2005], can be explained by the interaction of two major processes. One was related to the industrial revolution characterized by availability of new production possibilities based on application of science and industrial technologies [IMF World Economic Outlook, 2005]. The second platform was constitutional revolution where political power was subject to constraints creating thus a favorable environment for enhancing institutional development. It was concluded that countries that have experienced constitutional revolution before the industrial revolution, have acquired investment opportunities, economic growth and recorded progress in institutional framework. In the case where industrial revolution evolved faster than constitutional one, existing political entities with unconstrained power enforced creation of institutions with weak property rights thus enabling the institutional mechanism to create its own inertia [IMF World Economic Outlook, 2005].

Rapid institutional development in the last 30 years confirm the fact that the changes implemented since 1950's have increased the potential for institutional progress. Main reason stands behind removing colonial regimes which had one major beneficiary and was governed by weak property rights. Second factor, was advanced technological improvements which fostered the industrialization process across a variety of sectors. Last but not least, the

fall of socialism has been a vital determinant in the process of transformation of former socialist countries into market economies. It basically altered governance structures removing major source of institutional dominance.

Considering for the last few decades, institutional improvement has been observed across regions and broad range of countries. Figure 15 illustrates the comparative assessment of the progress in institutional progress considering developing economies.

Figure 15 | Developing economies and registered institutional progress



Source: IMF, World Economic Outlook, 2005

The representation denotes the levels of institutional progress measured by Kaufman, Kray and Mastruzzi's [2005] aggregate governance index from the early stage of institutional development in 1996 until 2004. Considerable progress was recorded by CEE region and Latin America, as denoted in the figure, while CIS and Mongolia recorded low levels of institutional development. The changes were influenced by a set of events and policies specific for each country individually which addressed existent institutional weaknesses and reshaped the economic incentives in the society.

1.4.1 Comparative Assessment of Institutional Development in Transition Economies

After the fall of socialism, the framework for market economy environment was still immature in many Central and Eastern European countries. One vital aspect to consider is the institutional preconditions which were already set in certain countries due to developing capital environment in the nineteenth century and inter-war period [Estrin & Mickiewicz, 2010]. In this respect, we can distinct countries from CEE region, which included the Baltics and those from the former Soviet Union. Djankov & Murrell [2002] emphasized that the countries from the first category inherited a relatively strong institutional and legal environment in order to operate in a market economy. This factor eased the process of EU ascension due to the pre-established institutional basis. In contrast, the countries from the socialist block did not have any exposure to market economy stagnating thus any institutional development. As a result a full institutional reorganization was expected leaving minimal chances for this group of countries to aspire to EU Ascension.

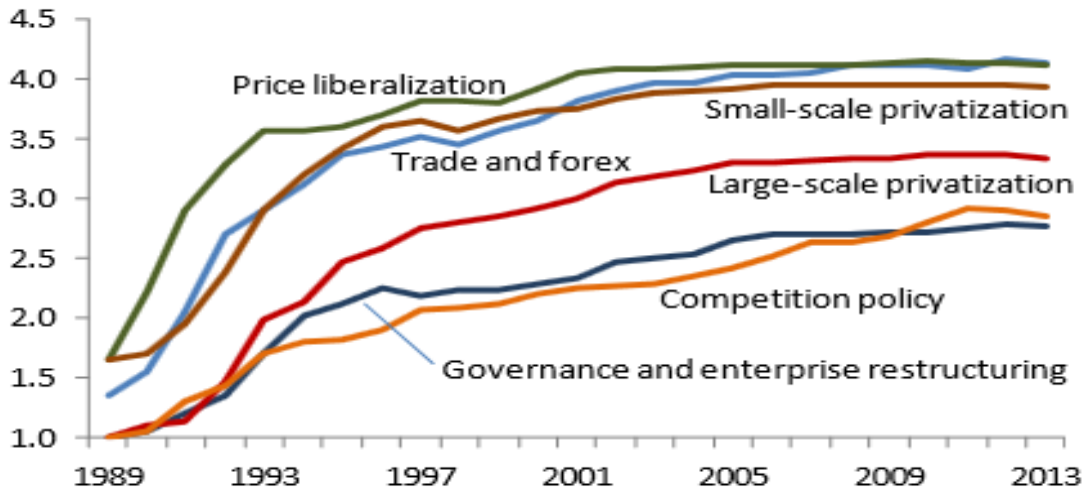
When focusing on the countries from Southeast Europe such as Albania, Bosnia and Herzegovina, Bulgaria, Serbia, Montenegro etc., the process of transformation to market economies and developing sound institutions, has been more difficult due to existing social and political challenges. The countries from SEE region have comparable figures in income and other measures of development with their Western European neighbors however the differences are as striking as their similarities [Broadman et al. 2004].

For instance, Bulgaria has made significant progress in the process of a functional market economy and avoided political instabilities unlike other Balkan countries. Along with Romania, these countries recorded positive economic development and in 2007 joined the EU. In 1990s, due to political clashes and civil war, Yugoslavia's economy was severely undermined and split the country which lead to disintegration of its infrastructure and industries. Countries like Bosnia and Herzegovina, Croatia and Montenegro had to face major challenges such as poor infrastructure, high poverty rates, political instability and economic isolation.

In contrast with the turbulent first decade of the transition period, the early and mid-2000s saw a steady development in macroeconomic indicators and market-based frameworks were largely in place [Roaf et al. 2014]. The authors emphasize that in order to sustain the convergence process, the countries should prioritize in two main aspects. An important factor is maintaining the macroeconomic and financial stability in order to possess tools and resources to handle potential issues i.e. bad loans in banks and increasing debt. Second aspect relates to enhancing the path of structural reforms in areas such as business and investment climate.

Comparing the results achieved in the transition process from the fall of socialism, it is evident that the transformation speeds varied across countries and institutional indicators. Due to implementation of legal and regulatory changes, the process of liberalization of prices and trade was enacted. The process of small privatization did not encounter major challenges and reforms in these areas are mostly complete in all transition countries except Belarus [Roaf et al. 2014]. However in terms of large-scale privatization, Central Europe and Baltics have achieved the best records while the process for countries from SEE region and CIS remains to be finished. Indicators like enterprise restructuring and competition policy [Figure 16] have achieved modest results due to country's previously established setup and opposition from insiders having benefits from the existing institutional framework [Roaf et al. 2004].

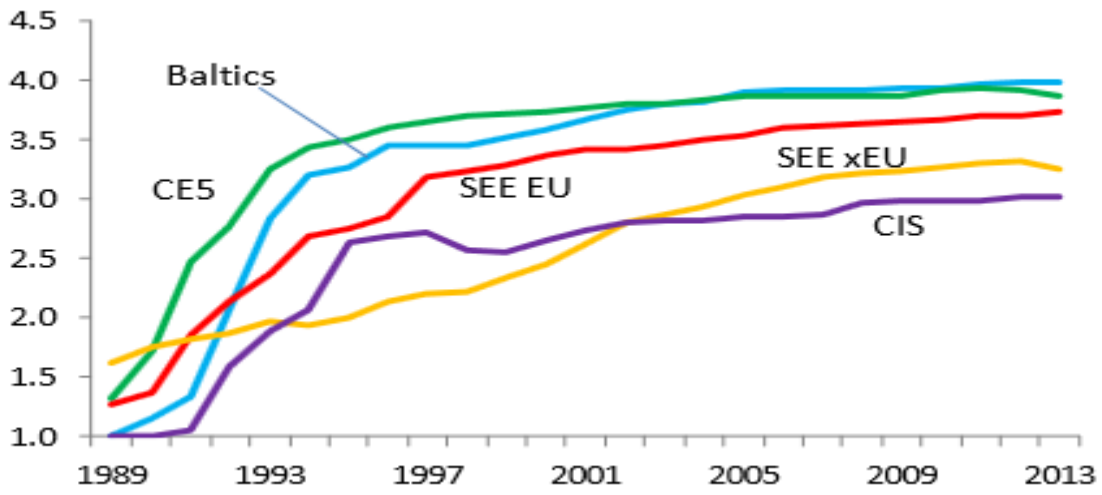
Figure 16 | EBRD Transition indicators by reform type



Source: IMF, Regional Economic Issues, Special Report, 2014

Differences in institutional development among countries remain visible denoting a slower pace in the last decade [Figure 17]. The results comprising a time framework until 2013, are consistent with the findings of Djankov and Murrell [2002] which highlighted the stronger institutional environment in Central Europe [CE5] and weak institutional basis in the former socialist countries [CIS]. Substantial progress has been recorded in both sets of countries however the convergence is far from being achieved. Regarding SEE region, we distinct two categories of countries, one recorded as countries from SEE which have become members of the EU [SEE EU] and the second relates to countries from SEE which are not members of the EU [SEE^{x}EU]. Once again, the results confirm that the turbulent political and economic setup at the beginning of 1990s, has a played a major role in the further development of the institutional indicators in both groups of countries. From the figure, we can conclude that Baltics along with the CE5 countries, have a strong institutional environment due to progressive structural reforms and economic enhancement influenced by the existing developed institutions.

Figure 17 | EBRD Transition indicators by region



Source: IMF, Regional Economic Issues, Special Report, 2014

Further, for a closer assessment on specific transition indicators, two comparative tables based on different sets of institutional indicators were elaborated. The first one comprises indexes of economic freedom provided by the Heritage Foundation in three block of countries from Central, East and Southeast Europe [Table 3]. Five main indicators were selected and two years were included denoting the beginning of the period when these indicators were published i.e. initial transition period and the latest available data on these indexes to provide a comparative assessment on their development.

Table 3 | Comparative assessment of institutional framework using Heritage Foundation indexes in three selected block of countries

Region	*Overall Index*		*Freedom from Corruption*		*Fiscal Freedom*		*Business Freedom*		*Investment Freedom*	
	1996	**2015**	**1996**	**2015**	**1996**	**2015**	**1996**	**2015**	**1996**	**2015**
Visegrad										
Czech Republic	68.1	72.5	50	48	47.5	81.5	100	68.2	70	80
Slovakia	57.6	67.2	50	47	66.4	80.8	70	69.6	70	80
Poland	57.8	68.6	70	60	48.0	82.1	70	67.3	70	70
Hungary	56.8	66.8	50	54	55.8	78.7	70	74.4	70	75
Baltics										
Lithuania	49.7	74.7	30	57	76.6	92.9	70	84.9	50	80

Latvia	55	69.7	50	53	78.0	84.4	70	82.1	50	85
Estonia	65.4	76.8	50	68	73.2	80.6	85	81.5	90	90
Balkans										
Bosnia and Herzegovina	N/A	59	N/A	42	N/A	82.9	N/A	53.5	N/A	70
Bulgaria	48.6	66.8	30	41	50.6	91.0	55	68.5	70	65
Croatia	48	61.5	30	48	77.4	74.9	55	55.8	50	80
Albania	53.8	65.7	10	31	81.7	87.2	70	70.6	70	70

Source: Author's presentation; Indexes collected from the Heritage Foundation portal

The presented indices follow the existing literature in describing the institutional development in these groups of countries. A higher number of the indices denote a better institutional environment. All countries denote an improvement of the index of the overall economic freedom with Visegrad countries taking the lead. An interesting finding suggest relatively modest progress performed in improving the business environment and the corruptions indices. Roaf et al. [2014] suggests that none of the countries had a sound and fair business framework due to enforcement by the previous setup governed by central planning, political decisions and corruption.

Generally, a positive trend has been recorded with transition economies raising their ranking in the Transparency International Survey, very markedly with only a few falling back. It is also observed that the indices for fiscal freedom has considerably improved highlighting improvements in the taxation system in all countries besides in certain non-EU members from the Balkan group of countries.

Table 4 | Comparative assessment of institutional framework using EBRD Transition indicators in three selected block of countries

Region	*Privatisation*		*Governance and enterprise restructuring*		*Price liberalization*		*Trade and Forex Systems*		*Competition policy*	
	1996	**2014**	**1996**	**2014**	**1996**	**2014**	**1996**	**2014**	**1996**	**2014**
Visegrad										
Czech Republic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Slovakia	3.0	4.0	3.0	3.7	4.0	4.3	4.3	4.0	3.0	3.3

Poland	3.0	3.7	3.0	3.7	4.0	4.3	4.3	4.3	2.7	3.7
Hungary	4.0	4.0	3.0	3.7	4.3	4.0	4.3	4.0	3.0	3.3
Baltics										
Lithuania	3.0	4.0	3.0	3.0	4.0	4.3	4.0	4.3	2.0	3.7
Latvia	3.0	3.7	3.0	3.3	4.3	4.3	4.0	4.3	2.0	3.7
Estonia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Balkans										
Bosnia and Herzegovina	1.0	3.0	1.0	2.0	3.0	4.0	1.0	4.0	1.0	2.3
Bulgaria	2.0	4.0	2.0	2.7	2.7	4.3	4.0	4.3	2.0	3.0
Croatia	3.0	3.7	2.7	3.3	4.0	4.0	4.0	4.3	2.0	3.3
Albania	2.3	3.7	2.0	2.3	3.7	4.3	4.0	4.3	1.7	2.3

Source: Author's presentation; Indexes collected from the EBRD Research and data Portal

The second table has been constructed based on the same pattern however including the EBRD transition indicators. With the higher number of indices denoting a complete transaction to market economy, the general overview present a positive trend and improving perspective. Major improvements have been observed in price liberalization and trade openness in most countries. On the other hand, modest results have been recorded in the framework of competition policy which ties to the idea of persistent corruption still present in many transition countries. Privatisation process has generally evolved without major opposition being mainly completed in the first decade of the transition process. In terms of countries comparison, Visegrad followed by the Baltic block maintain a solid institutional framework while Balkan countries continue their conversion and continuous development while dealing with institutional and political framework inherited historically after 1990s.

1.5 Empirical Investigation on Institutional Determinants

The empirical investigation on institutional quality is rather limited despite the vast research performed on determinants of FDI. The available literature mentions that factors such as effectiveness of property rights, sound and stable regulatory frameworks, economic freedom

and lack of corruption are of significant importance for investor decision making processes. It is deemed that localisation advantages make some countries more attractive than others. Those can be market size, macroeconomic stability, labour costs, economic growth, trade openness, political stability, transparent regulatory frameworks, corruption, and privatisation processes [Dumludag, 2009].

An early attempt to study the impact of institutions on FDI levels was made by Wheeler & Moody [1992]. Taking the first principal component of 13 risk factors (including legal system quality, corruption, bureaucracy and political instability), they did not find that "good" institutions have a considerable impact on the location of US foreign affiliates. However, the index also included factors, such as inequality level and environment of expatriates that are not directly related to the quality of institutions.

Moreover, Rodrik [1999] added to his estimations the "social conflict" indicator as one of the explanatory variables. His empirical results have shown that what really matters are the rules and games in a society. Daniele & Marani [2006] discuss potential channels through which institutions may affect the level of investment. First, the presence of good institutions tends to improve productivity, and subsequently stimulates investment, regardless whether domestic or external. Also, good institutions are associated with lower investment transaction costs. Finally, FDI engage high sunk costs. Thus, good institutions will add more credibility and security for MNEs.

The impact of both macroeconomic and institutional variables was studied by Ali, Fiess & McDonald [2008]. They employed a panel regression analysis for a sample of 107 countries from 1981-2005 and examined variables like GDP growth, trade ratio, inflation, institutions, government size, human capital, years of high education, property rights, natural resources and their impact on FDI inflows. To measure the quality of institutions they employed the ICRG index which incorporates twelve dimensions. They concluded that both macroeconomic framework measured by market size, openness of trade, inflation and institutional one, are statistically significant in all model specifications. They managed to empirically verify that institutions along with the basic determinants of FDI inflows, are important for the decision making process of the investors.

Still, empirical evidence is quite inconclusive. For instance, Jensen [2003] focusing on 114 developing countries worldwide using a panel regression for the years 1970–1997, found that expropriation, corruption levels, bureaucratic frameworks and rule of law are insignificant determinants, while trade openness and economic growth appear to be important factors influencing FDI inflows. By contrast, Busse & Hefeker [2005], when analysing a data sample consisting of 83 developing countries between 1984 and 2003, identified that indicators that matter the most to investors are government stability, law and order and the level of democracy. The level of macroeconomic stability represented by inflation and corruption turned out to be significant to a lesser degree.

Another empirical investigation regarding the impact of institutions was performed by Daude & Stein [2004] where they used a set of indicators developed by Kaufman. These indicators are constructed based on a variety of surveys and polls of experts. These are: Voice and Accountability; Political Stability; Government Effectiveness, Regulatory Quality; Rule of Law and Control of Corruption. The indicator of voice and accountability measures citizens' freedom and civil rights and their impact in government affairs. Political stability indicator relates to the possibility of violent actions against the government in power. Government effectiveness is determined by the quality of public services in providing sustainable results. The rule of law shows to which extent the nation follow the rules and regulations stated by the judiciary framework. Control of corruption measures at which level the public goods are attained by private entities for their own benefit. The authors used a model of unobserved components, which enabled them to achieve the level of coverage of approximately 160 developing countries for each of the indicators. The results highlighted that the quality of institutions is statistically significant and economically important. Moreover, they concluded that only selected institutional indicators influence the decision making process of the investors. Excessive regulatory quality and government effectiveness seemed to play a more significant role in attracting FDI inflows.

Consequently, Heriot et al. [2008] have analysed the relationship between the Index of Economic Freedom provided by Fraser Institute and the level of investment inflows. The Fraser Index incorporates several domains meant to measure segments of economic and

social aspects which determine the level economic freedom. These include measurement of government size, governmental regulation, legal system, freedom to international trade and sound money [Heriot et al. 2008]. Based on a pool of 121 countries with a time span from 1970 to 2005, the authors determined that higher levels of economic freedom attract more FDI inflows. Based on pooled OLS, the study did not differentiate between smaller and larger countries.

Empirical assessments have been performed for the Middle East and North Africa countries [MENA]. Caetano & Galeno [2009] analysed the FDI inflows on a sample of MENA and EU countries considering main macroeconomic variables as well as institutional determinants from Heritage Foundation. Estimation based on panel data regressions, show that pure economic variables such as GDP and Trade Openness have significant effects on FDI performance. Among between institutional variables, Investment Freedom seems to play a major role which confirm that relevant policies implementation reduce trade barriers and stimulate investment inflows. On the other hand, the authors emphasise the negative role of government size (or equivalently a positive relation with the level of public expenses) [Caetano & Galeno, 2009]. This aspect implies the potential positive impact of public investments in infrastructure which would foster FDI.

Analysis of institutional quality in transition countries is of major interest since these economies, in general, represent a suitable natural environment model for studying institutional improvements of economic development [North, 2005]. The change of the economic system in former socialist countries included a significant institutional change, allowing researchers to econometrically test the importance of institutions for several areas of economic life. One of the earliest attempts to investigate institutional frameworks in transition economies was made by Holland & Pain [1998]. They examined a time series of 11 transition countries from 1992–1996 using the specific transition indicators from the EBRD database. The analysis showed that besides macroeconomic indicators such as trade openness and labour costs, the method of privatisation appeared to be an important determinant influencing FDI inflows.

Consequently, Abed & Davoodi [2000] used a panel-data analysis to examine the impact of corruption levels on investment inflows on a dataset of 25 transition economies. They find that lower corruption levels attract more FDI however when accounting for structural reforms, corruption becomes insignificant. Performing changes in the economic-governmental structures have a more substantial impact in attracting FDI then reducing corruption levels as such.

Likewise, Pournarakis & Varsakelis [2002] analysed institutional environment impacts on investment inflows into 10 transition countries in the CEE region for the period 1997–2000. They found that weak civil and political rights prevent the country from being attractive to foreign investors. Moreover, a transparent business environment is a significant advantage regarding the attraction of FDI from EU member states. Sušjan et al. [2007] confirm the assumption that FDI can spur economic growth in transition economies and that institutions play an important role for the level of FDI. Employing Economic Freedom Indices from the Heritage Foundation database, they emphasised that property rights protection and regulation are major institutional determinants for FDI inflows.

The Index of Economic Freedom is reported by Heritage Foundation and it comprises a set of measures like fiscal freedom, monetary freedom, investment freedom, government size, property rights, freedom from corruption, trade freedom, business freedom etc. Each component is ranked from 0 to 100 and denotes a country's economic, political and social framework based on the indicator. A higher number suggests the ability of a country to provide fair business environment and create potential investment incentives. A wide variety of authors have employed these measures to empirically test their importance in the context of FDI inflows. Among those, Nasir & Hassan [2011] based a group of countries from South Asia, examined the relationship between investment inflows, market size and economic freedom. Considering a time-span from 1995-2008, it was concluded that despite a supportive macroeconomic environment, the region attracts a low share of FDI due to limited economic freedom.

Consequently, El Sayed [2011] performing an empirical assessment on FDI inflows to MENA region over the 1995-2009 found that macroeconomic factors such as level of trade

openness and size of the economy are important determinants however with the increasing wave of globalization, institutional quality has been more closely taken in consideration. Lower tax rates, lower corruption and higher fiscal freedom are among the main factors which in combination with the general economic framework of the region attract higher capital inflows.

Among the recent empirical assessment using Heritage Foundation's economic freedom index was performed by Chaib & Siham [2014]. The authors have analysed the impact of economic institutional quality on the levels of FDI inflows in Algeria. Consequently employing the Johansen cointegration test to investigate the relationship among the employed variables, they have concluded that an improved economic freedom indicator can foster more investment inflows in the region and create a sound investment climate in the long run.

A more detailed investigation was elaborated by Coffman [2015] which analysed the institutional determinants and their effect on FDI flows based on a dataset of 193 countries and employing ten metrics from the Index of Economic Freedom. The results confirm that strong institutions increase the levels of FDI flows. Consequently, the author differentiated among high, middle and low income countries and suggested that firms are investing in low income countries due to natural resources and cheap production that could be exported efficiently [Coffman, 2015]. For high and middle income countries, strong institutional development is associated with higher level investment inflows where factors like governance and regulation matter for middle income countries while capital mobility and financial markets matter for high income countries. It is also concluded that investors tend to put a strong emphasis on the institutional development in the regions such as Europe, Latin America and Sub-Saharan Africa when deciding to expand their investment activities [Coffman, 2015].

Similar empirical investigations have been performed for transition economies in order to assess the impact of institutional determinants on the levels of FDI inflows in the region. Sušjan et al. [2007] confirm the assumption that FDI can spur economic growth in transition economies and that institutions play an important role on the level of FDI. Employing

institutional indicators from Heritage Foundation, they emphasized that property rights protection; regulation and black market are major institutional determinants for FDI inflows.

Dang [2009] has analysed the effects of institutional changes and institutions along with the progress on the level of investment inflows in 21 transition economies since the fall of socialism. Three sets of institutional indicators were employed in the study: economic institution proxied by the Index of Economic Freedom compiled by the Heritage Foundation, political institution measured by Freedom House's Political Rights and Civil Liberties index and transition progress documented by the EBRD transition index. Employing a panel data estimation techniques, the author concluded that the institutional determinants along with the macroeconomic indicators are important factors in explaining investment differences. Moreover, higher degree of economic and political freedom is associated with a higher rate of investment to GDP ratio [Dang, 2009]. The author also emphasises the importance of the overall economic freedom index. Improvement of individual economic institution cannot account for the general performance and it is the overall enhancement of economic institutions which contribute to the fostering of FDI inflows.

However some authors, based on their empirical analysis, did not find any connection between a stable institutional environment and level of investment inflows. Gutierrez [2015] analysing the effects of corruption on FDI inflows in Argentina, found that the high level of corruption in Argentina does not negatively impact the FDI inflows because investors focus mainly on exploitation of natural resources in the region. The study incorporated two measures of business climate: Corruption Perception Index produced by Transparency International and Index of Economic Freedom provided by the Heritage Foundation.

The EBRD transition indicators have been used in various empirical studies due to the fact that they are more closely related to issues of transition economies in the CEE region. Fabry & Zeghni [2006] employed these indicators in their studies focusing on the type of ownership, banking sector reform, trade liberalisation and legal development. On a sample of 11 countries, along with property rights, private sector development and overall regulatory frameworks were observed to significantly influence investors' decision making processes. Later on, Culahovic et al. [2009] tried to explain theoretically and empirically the

significance of institutional quality and its impact on FDI into Southeast countries. Using a series of indicators provided by EBRD which measure the progress of the transition process, the econometric analysis confirmed that the institutional development is statistically significant in attracting FDI flows into the region. Using OLS with panel-corrected standard errors for a dataset covering a time framework from 1999 to 2006, the authors concluded that SEE countries are at different development stages in terms of their institutional quality. This conclusion denotes the necessity to continue the implementation of institutional reforms targeted to improve the overall investment climate in the region.

Among the recent empirical studies, Kersan-Škabić [2013] analysed the institutional environment in the Balkans and the impact on the level of FDI inflows. The author states that besides main macroeconomic drivers, the level of corruption, large scale privatisation and overall infrastructure reform play an important role in assessing institutional factors which determine the level of investment inflows into the region.

Bevan et al. [2004] have focused on providing an empirical assessment of the continuous developing institutional framework in the CEE region and its impact on the level of investment inflows. They found that FDI is positively correlated to the quality of formal institutions though an impact from informal institutions can be noticed in the case of Russia which has suffered a gap between the effectiveness and extensiveness of the legal system [Bevan et al. 2004]. The main institutional determinants appear to be banking sector reform, legal development and private ownership of business.

Fabry & Zeghni [2006] also analysed the importance of the EU membership variable in explaining the level of FDI in transition economies. It was stated that FDI are more sensitive to institutions in non-candidate countries than those in future or existing EU members. This can be explained by the fact that before joining the EU, candidate countries make substantial efforts to improve their legal, political and economic institutions shifting towards more stable and transparent rules. The EU integration process positively affected FDI inflows in the CEE in the recent years. To prove this assumption, Bevan & Estrin [2000] constructed variables which represented significant political announcements for admission of the CEE countries into the EU as a result of the progress made by candidate countries in fulfilling

membership criteria of the Essen European Council Meeting in 1994–1995 and the Agenda 2000 document which announced the “first” and the “second” wave countries. The results show that the countries announced with the future perspective of EU enlargement significantly improved their image as investment destinations. Consequently, the same authors mention that countries such as the Czech Republic, Hungary, Slovakia and Poland observed an increase in the FDI levels after the official announcement. They conclude that positive feedback related to the progress of these countries might improve their institutional quality because they comply more with the EU requirements.

2. Empirical Assessment

2.1 Empirical Strategy

The thesis aims to fill the gap in the current debate on the determinants in the post-communist countries by providing an econometric analysis of the institutional factors affecting investment inflows in 11 transitional economies, namely, the Czech Republic, Poland, Hungary, Slovakia, Lithuania, Latvia, Estonia, Bulgaria, Bosnia and Herzegovina, Albania and Croatia covering a time span of 21 years from 1993-2013. For a better assessment of the specific institutional environment, I grouped the countries according to their geographical position and provided a comparative analysis on the results obtained in each group of countries. I developed a model that combines traditional FDI determinants and the specific transitional factors (such as privatisation level, government effectiveness, and the like), expected to play a certain role in the decision making process of multinational companies that have invested in these countries. The proposed econometric model relies on a panel data set which aims to capture the dynamic behavior of the parameters and provide somewhat more efficient estimation of the parameters employed in the model.

2.2 Dependent Variable

Along the lines of previous research, the endogenous variable in this study was chosen foreign direct investment net inflow in per capita terms. This allows us to take the relative country size into account. The values for FDI per capita for each country were obtained by calculating the ratio of FDI (Balance of Payments in current US $) for country *i* at time *t* divided by the total population for each country separately. Values for both indicators were collected from the World Bank Indicator Database. Thus, the dependent variable is the log of FDI per capita and the independent variables were chosen based on previous literature and availability of the dataset for the selected period.

2.3 Independent Variables

Market size is represented by GDP per capita in purchasing power parity values.[2] It is considered one of the most important factors in explaining foreign investment in both levels and inflows (Chakrabarti, 2001, Carstensen & Toubal [2004]; Janicki & Wunnava [2004]. It also captures potential economies of scale in production. The data for this variable are derived from the World Bank Economic Indicators. It is expected to be a positive and significant determinant of FDI inflows, as suggested by numerous empirical studies (Bevan & Estrin [2000]; Asiedu [2002]; Garibaldi & Mauro [(2002]).

Faster *GDP growth rate* typically attracts more FDI. That implies that investors are attracted to countries with faster growing markets, fact confirmed empirically by a number of studies (Barrel & Pain [1996]).[3] The data for the metrics are retrieved from the World Bank Economic Indicators and it is expected to be positive and significant determinant of FDI inflows.

Trade openness shows the extent of international openness to flows of goods and services, increasing the potential market size of the country. In the standard literature, if the ratio of trade to GDP is lower, the country may either have restrictions to trade or its external competitiveness may be hampered. The metrics is proxied as the ratio of exports and imports combined divided by GDP and the data is available from the World Bank Economic Indicators. The empirical evidence suggests a positive relationship in the case of the post-communist economies, therefore we expect this factor to be a significant determinant of FDI in this region [Chakrabarti, 2001].

[2] Although I realise that GDP per capita is perhaps not the best proxy for the market size, lack of micro data does not permit to better determine the market size according to the sector of production which would be a better indicator. Likewise, I realise that for the members of the EU or even the Euro Zone, market size might in reality be more substantial in case GDP per capita in those countries is lower than that of the supranational entity they are members of. Still, together with Kersan-Ščabić (2013), I expect the immediate market size to be an important driving factor on average, as investors tend to be interested in locating some of their production in the market they are present in.

[3] In my thesis, only one-way relationship is considered and GDP growth is taken as an exogenous variable. I realise that faster GDP growth can also be, and frequently is, a result of stronger FDI inflows, but a closer look on this would require that a VAR model be used. Still, to circumvent and/or soften this issue, instead of current I am using a one-period lagged value of GDP growth.

Labour cost are in most countries and industries a major component of total production cost of businesses. It is particularly true for labour-intensive production activities that higher wages may discourage a portion of FDI [Ranjan & Agrawal, 2011]. As a measure of labour costs I employ the logarithm of gross average monthly wages for country *i* at time *t*. The data is collected from UNECE Statistical Division Database, and compiled from national and international (OECD, EUROSTAT, CIS) official sources. The wages are computed using the respective nominal exchange rates to the US$.

Corporate tax rates can be a decisive factor for companies when considering to extend their investment activities abroad. Data is retrieved from Trading Economics website.

Education. Investors stress the importance of employing skilled versus less skilled labour. Therefore, in our study, we employ tertiary education variable which is the proportion of labour force with tertiary education[4], as a percentage of the total labour force. Data is retrieved from the World Bank Economic Indicators with the original source being International Labour Organization.

2.4 Institutional Variables

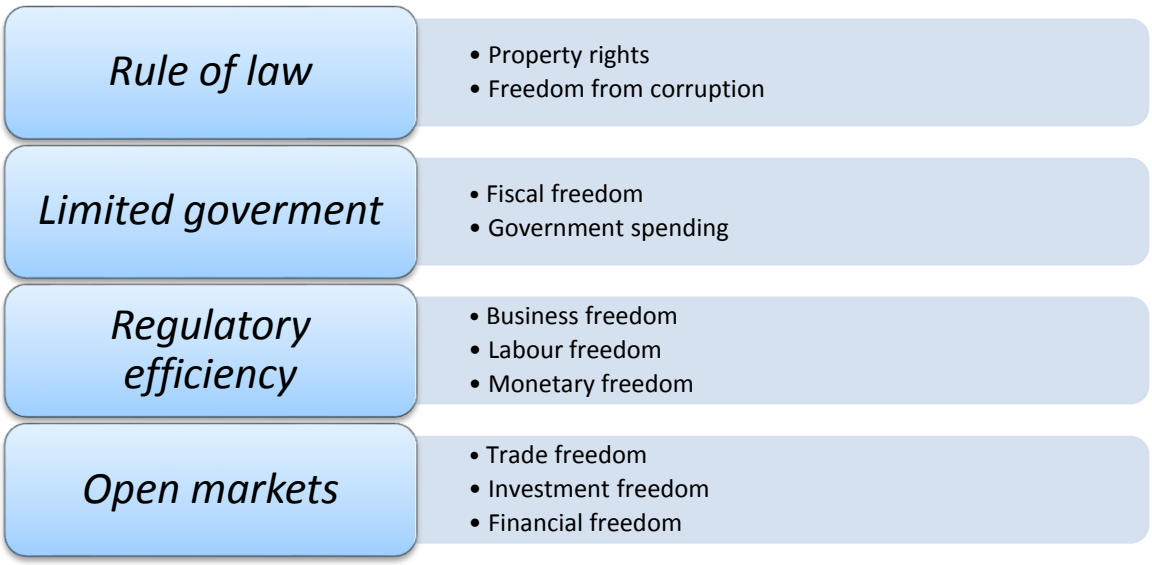
2.4.1 Heritage Foundation Indicators

The index of economic freedom compiled by the Heritage Foundation is assessed as an indicator of economic and social progress of a [the] country. Features characterising a solid economic freedom index are healthy societies, higher per capita wealth, democracy, and also poverty reduction. Throughout the time economic freedom scores have been updated for an increasing number of countries around the world providing cross-country comparisons, assessment on regulatory framework and improvements recorded in the course of implementation of development and sustainable programs [Heritage Foundation, 2015]. The goal in presentation of this index is to maintain the sense of liberty for all structures in a

[4] The World Bank defines tertiary education as including universities as well as institutions that teach specific higher learning such as colleges, technical training institutes, nursing schools, etc.

society removing the possibility of imposing any type of economic, social and political constrains. Each aspect of economic freedom contributes to the development of a prosperous nation. All are complementary in their impact, however progress achieved in one area, reinforces the progress in another [Heritage Foundation, 2015]. The index is measured based on ten factors grouped into four categories which define economic freedom. These are:

Figure 18 | Heritage Foundation indicators



Source: Author's presentation

Rule of law is determined by legislation fully enforced by the state, independence and transparency of the judiciary system and the ability of individuals and businesses to implement contracts. Freedom from corruption represents a vital component for maintaining sound and functional economic relationships.

Limited government is a measure associated with government involvement in tax administration. It includes both the direct tax burden in terms of the top tax rates on individual and corporate incomes and the overall amount of tax revenue as percentage of GDP [Heritage Foundation, 2015].

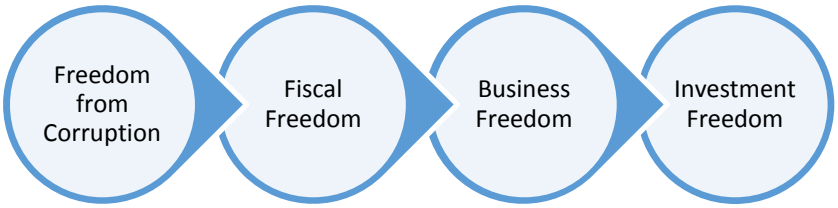
Regulatory efficiency describes the ability of companies to start, operate and manage businesses in a specified country. Moreover, labour market conditions are closely considered

for further business operations. The state of the overall macroeconomic environment stay at the basis of an efficient regulatory framework.

Open markets stand at the basis of an economically free country with no constraints and barriers for investment inflows. There are no restrictions both internally and abroad, to move and use the resources according to the established investment plan. Financial freedom is a consistent part of the measure controlling for independence from government control and interference in financial sector.

For convenience, I have chosen four factors from each dimension to be included in our model [figure 19]. The overall score is calculated by averaging all indicators and assigning them equal weights afterwards [Heritage Foundation, 2015].

Figure 19 | Selected Heritage Foundation indicators



Source: Author's presentation

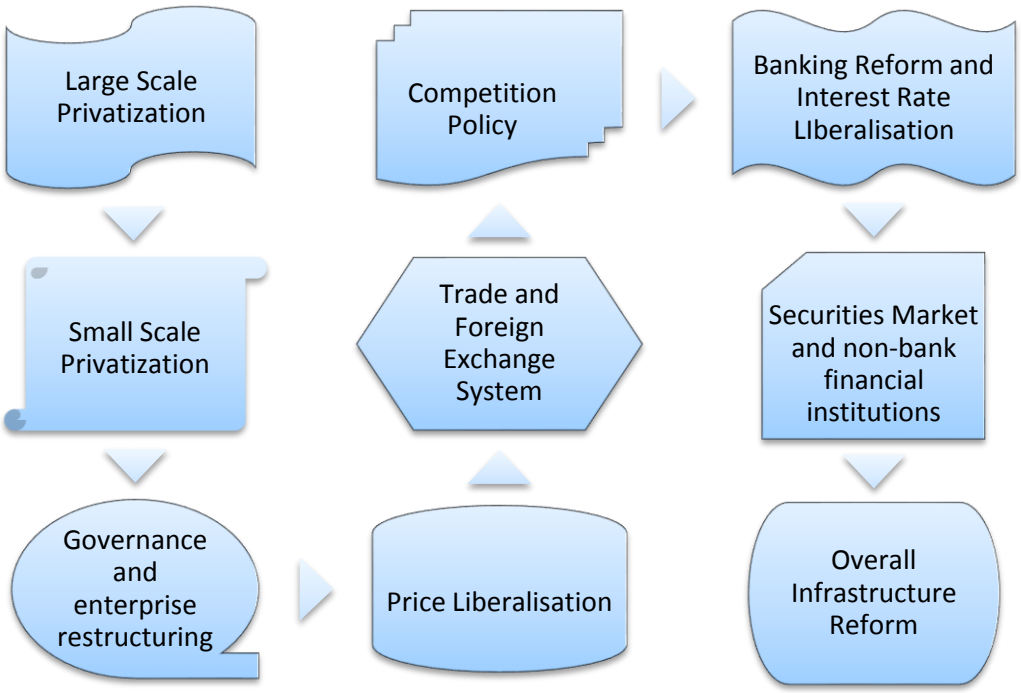
2.4.2 EBRD Transition Indicators

In order to analyze the institutional environment specific for transition economies, the European Bank of Reconstruction and Development [EBRD] indicators are employed to track developments in all these economies since their proclamation of independence. The main goal of the EBRD is to assist and provide financial support to countries during the process of becoming market economies. The set of indicators is measured on a scale from 1

to 4+, where higher value signifies full transition to market economy while the lowest value stands for a centrally planned economy.

Progress is measured against the standard of industrialized market economies, while recognizing that there is neither a "pure" market economy nor a unique end-point for transition.

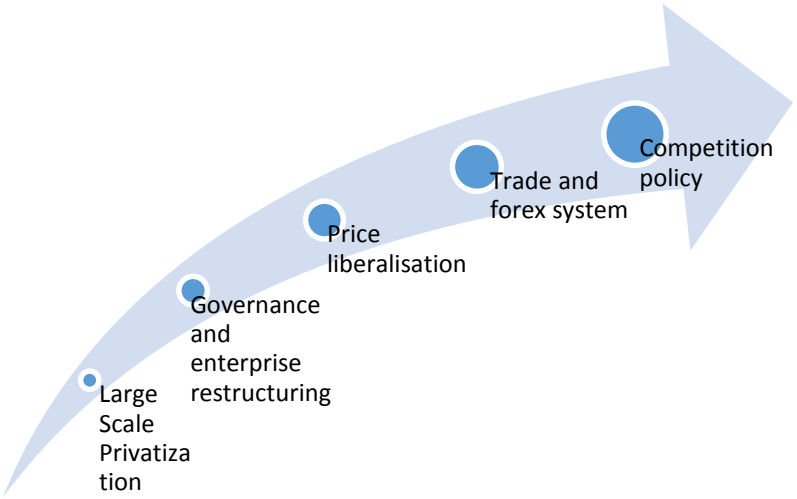
Figure 20 | EBRD Transition indicators



Source: Author's presentation

The analysis is based on five selected indicators to generally asses the institutional environment of the transition economies [figure 21].

Figure 21 | Selected EBRD Transition indicators



Source: Author's presentation

Privatisation process has been assessed as a signal for commitment to private property which may determine important FDI inflows. Moreover, countries with bigger share of private sector have attracted more FDI than those with smaller private sector size, fact determined empirically by Holland & Pain [1996]. This process has been of significant importance for transition economies since after the fall of communism when a general institutional transformation was initiated.

Governance and enterprise restructuring evaluate budget constraints and the level of reforms to promote corporate governance. A higher value indicate effective corporate control exercised through domestic financial institutions and markets, stimulating market-driven restructuring [EBRD, 2016].

Price liberalisation is an important determinant of healthy and functional institutions. The measure varies from the limit of most prices being formally controlled by the state to integral price liberalisation with no price control besides transport, housing and natural monopolies [EBRD, 2016].

The measure for *trade and foreign exchange system* show a country's access to foreign exchange and their exposure to potential investment inflows with partner countries. The regulations and restrictions should not burden the process and a current account convertibility is expected.

Competition policies in a state should be well-established in order to promote a viable platform for future investors. Enforcement actions to reduce monopoly and creation of equal conditions for the market players are factors denoting a functional competitive environment.

2.5 Assumptions and Hypotheses

Based on presented literature review, market size is considered one of the main determinants for FDI attraction in transition economies. Thus, the proxy for market size used is GDP per capita based on purchasing power parity and I expect a positive sign for the coefficient. GDP growth and trade openness variables are also expected to be positive, since open and developed economies are more integrated into international markets. I consider as well that lower labour costs and taxes might induce more investment inflows in one country and we expect negative signs for both indicators. Consequently, I consider that education of employed labour to matter for investors therefore we include it in our regression and expect a positive and significant sign [Table 5].

Table 5 | Basic model variables and expected signs

Variable	Data Source	Symbol	Expected Sign
	O		
GDP (ppp)	WBEI	GDP	+
GDP Growth	WBEI	GDPGR	+
Trade Openness	WBEI	OPEN	+
Gross Average Monthly	UNECE	LWAGEN	-
Taxes	Trading Economics	TAX	-
Education	WBEI	EDUC	+
Total	3	6	+/-

Source: Author's presentation

Our hypotheses are stated as follows:

H1: Higher FDI inflows are associated with a more stable, developed and dynamic macroeconomic environment with both/either reasonable production costs and/or skilled labour force.

H2: The safer and more reliable the political, economic, and social institutions in a country, the higher the FDI inflows.

Table 6 | Institutional variables and expected signs

Variable	Data Sources	Symbol	Expected Sign
Freedom from Corruption	HF	CORR	+
Fiscal Freedom	HF	FISC	+
Business Freedom	HF	BUSINESS	+
Investment Freedom	HF	INVEST	+
Large Scale Privatisation	EBRD	PRIVAT	+
Governance and Enterprise Restructuring	EBRD	GRES	+
Price liberalization	EBRD	PRICE	
Trade and foreign exchange system	EBRD	TFOR	+
Competition Policy	EBRD	COMP	+
Total	2	9	+/-

Sources: Author's presentation

Table 6 summarizes the information available on institutional determinants and their expected signs. Considering the results of previous empirical investigations, I assume that the higher value of institutional quality indicators, the higher are the investment inflows.

2.6 Methodology

Based on the hypotheses stated above, I estimate the following model:

$$LFDI_{it} = \alpha + \beta 1 INST_{it} + \beta 2 LGDP_{it} + \beta 3 GDPGR_{it} + \beta 4 dOPENNESS_{it} + \beta 5 LWAGEN_{it} + \beta 6\, dTAXES_{it} + \beta 6\, EDUC_{it} + \varepsilon, \quad [1]$$

where

$LFDI_{it}$ is the log of net inflows of foreign direct investment per capita into the country *i* in the year *t*,

$INST_{it}$ stands for the indicators that measure institutional factor for the country *i* in the year *t*,

$LGDP_{it}$ is the log of GDP per capita for the country *i* at the time *t*,

$GDPGR_{it}$ is the GDP growth rate in percent for the country *i* at the time *t*,

$OPEN_{it}$ stands for the difference in trade openness for the country *i* at the time *t*,

$LWAGEN_{it}$ is the log of gross average monthly wages for the country *i* at the time *t*,

TAX_{it} stands for the official corporate tax rate for the country *i* at the time *t* and it represents a part of costs of doing business. It is taken as a metric showing the potential for future profitability of companies,

$EDUC_{it}$ is the tertiary education level as a percentage of total population to control for quality of labour force.

My empirical investigation is based on a methodology using panel data specifications. This technique presents a set of advantages in comparison with pure time series and cross-sections since it incorporates all the available information that might provide useful insights when analysing the dataset [Baltagi & Kao, 2000]. Ranjan & Agrawal [2011] confirm that the panel data method has advantages by hinting to an individual heterogeneity, which reduces the chances of obtaining biased and/or inconsistent results and generally provides a large framework of data points.

For this model, I assume time invariant effect for each entity that might be correlated with the regressors. Lower differences in coefficients indicate the use of fixed effects as well. Moreover, the fixed effects method is appropriate to employ when we focus on a specific set of countries. An econometric problem which may arise is that panel regression analysis may entail autocorrelation of disturbances. This specific issue was solved by taking the first difference of institutional variables. The test using Durbin-Watson statistics demonstrated that autocorrelation was substantively reduced in the model. Moreover, lagged values of institutions are incorporated to assess whether new FDI inflows have a tendency to follow previous investment trends. For this matter, I incorporate lagged values of macroeconomic

variables in the model (i.e., GDP per capita, GDP growth, and education) in order to assess the level of profits reinvested from previous FDI based on specific country indicators. Finally, appropriate transformation of the data significantly reduces multicollinearity in the model, evidenced by mostly low correlation coefficients between explanatory variables in the correlation matrix.

The ordinary least squares [OLS] or even pooled OLS method is highly sensitive to outliers, so in order to deal with this issue and to reduce the data variation, improving the stability of the model and its significance, I transform some eligible data by taking their natural logarithms. Therefore, the variables that are skewed and are not ratios or net amounts leading to possible negative values (i.e., GDP per capita or wages) are log-linearised. Finally, all models are adjusted for heteroscedasticity using cluster robust standard errors.

2.6.1 Data Analysis Tools

This empirical investigation is based on a methodology using panel data specification. This technique presents a set of advantages in comparison with pure time-series and cross-sections since it incorporates all the available information that might provide useful insights when analyzing the dataset [Baltagi & Kao, 2000]. Ranjan & Agrawal [2011] confirms that panel data has advantages by suggesting individual heterogeneity which reduces the chances of getting biased and inconsistent results and by providing a large framework of data points, allows us to study in depth the dynamics of the model. Panel data model employs three methods:

Fixed Effect Method

In this specification time invariant effect are assumed for each entity that might be correlated with the regressors. This method is appropriate to specify if the focus is on a specific set of countries. The model for fixed effect method is:

$$Y_{it} = \alpha + \beta x_{it} + \mu_i + \nu_{it} \qquad \textbf{[2]}$$

In this case μ_i and v_{it} represent the decomposition of the disturbance term. μ_i denotes unobservable individual time-invariant specific effect and v_{it} is the remainder disturbance term which varies both with individual and in time. Simple OLS regression applied on the original model can cause issues with the loss of degrees of freedom and multicolliniarity.

Therefore applying the Least Squares Dummy Variable [LSDV] estimator assumes that the model is premultiplied by matrix Q which wipes out the individual specific effects. OLS is then performed on the resulting transformed model.

$$Qy = \propto Q\chi NT + Q\beta + QZ\mu\mu + Qv \qquad \textbf{[3]}$$

Random Effects Method

This specification represents an alternative method of estimation which assumes constants to be random parameters. This is in contrast with the fixed effects, where constants are considered fixed. This specification is appropriate if observed individuals are drawn randomly from a large population. The random effects panel data model can be presented in the following way:

$$Y_{it} = \alpha + \beta x_{it} + \omega_{it} \qquad \textbf{[4]}$$

Where $\omega_{it} = \varepsilon_{it} + v_{it}$

This model assumes the intercepts for each cross-sectional unit to arise from a common intercept α, which is the same in time and for all cross-sectional units plus a random variable ε_t that is constant in time but can vary cross-sectional [Ranjan & Agrawal, 2011].

In this specification there are no more dummy variables that might capture the variation in the cross-sectional framework however; in this case, this is performed via ε_i terms. Generalized Least Squares estimator is appropriate to employ for random specification since it combines the within and between variation of the observations in an optimal way.

***Pooled OLS method*:**

This method is constructed under the main assumption that there are no significant differences among the data in the cross-sectional framework and it is known as the pooled

least square model. It is based on the principle of pooling the data and estimate OLS regression.

$$Y_{it} = \beta_0 + \beta_1 x_{it} + \mu_{it} \quad \textbf{[5]}$$

Still, this will result in biased results because of the heterogeneity problem. However, the bias is smaller under this specification in comparison with cross-sectional OLS because pooled OLS takes in consideration the within variation as well.

Hausman Specification Test

In order to assess the significance of one estimator versus another estimator the Hausman specification test is employed which helps evaluate and understand which model fits data accordingly. The test compares the parameters of the fixed and random effects model and concludes on the correlation between errors and regressors.

H_0: Random Effects model preferred;

H_A: Fixed Effects model preferred;

The test is based on two estimates, one coefficient from the fixed effects model and one from the random effects specification. The FE coefficient ($\hat{\alpha}_{1_{FE}}$) under the H_0 hypothesis is consistent and inefficient and inconsistent under H_A while RE estimator ($\hat{\alpha}_{1_{RE}}$) under H_0 is consistent and efficient and is consistent under H_A.

	H_0	H_A
$\hat{\alpha}_{1_{RE}}$	Consistent & Efficient	Inconsistent
$\hat{\alpha}_{1_{FE}}$	Consistent & Inefficient	Consistent

The test relies mainly on estimation of equation M [6]

$$M = \left(\hat{\alpha}_{1_{RE}} - \hat{\alpha}_{1_{FE}}\right)^T \times \left[var\left(\hat{\alpha}_{1_{RE}}\right) - var\left(\hat{\alpha}_{1_{FE}}\right)\right]^{-1} \times \left(\hat{\alpha}_{1_{RE}} - \hat{\alpha}_{1_{FE}}\right) \sim X^2_{kw} \quad \textbf{[6]}$$

If M is significant, considering the asymptotic distribution with *kw* representing the number of regressors in the within regression, we reject H_0 and we select the fixed effects model.

3. Results and Interpretation

3.1 Estimation results using Heritage Foundation Indicators

The panel OLS estimation results for 11 transition countries are presented in the tables below.[5] The countries were grouped according to their geographical location in order to provide a comparative assessment of the institutional framework specific for each of them.[6] The first group consists of the Visegrad countries, i.e., the Czech Republic, Poland, Hungary, and Slovakia. The second group is represented by the Baltic countries, i.e., Lithuania, Latvia, and Estonia, and the third group consists of selected Balkan countries[7], mainly based on data availability: Bosnia and Herzegovina, Bulgaria, Albania and Croatia. Institutional variables have been added into the model as an aggregate and subsequently singly added to the benchmark model. Both the Heritage Foundation and EBRD indicators are employed in the model for each highlighted group of countries.[8]

In following Tables 7-9, the institutional variables in equation [1] refer to the following:
CORR is the Freedom from Corruption indicator. It is based on Transparency International's Corruption Perceptions Index [CPI]. The higher the index, the less corruption is present in the country. An intuitive expectation goes that investors mostly seek a low-corruption environment.

[5]In the paper, Gretl 1.9 and Stata 11 software has been used for all econometric modelling and some calculations.
[6]Apart from certain exceptions, such as Poland in the group of Visegrad countries, geographical location also in this case offers a satisfactory economic similarity of the chosen countries in terms of GDP per capita, tax system, GDP growth, trade openness, etc. This has also been one of the motivations to cluster countries into different groups to obtain more generalisable results.
[7]Sometimes also referred to as the *Southeast European region* or *Southeast Europe* (SEE).
[8] EU membership dummy variable was initially used as a control in the model, however results showed little significance for investors.

FISC denotes the Fiscal Freedom indicator, or a measure of the total tax burden imposed in the country. Higher values of the indicator are associated with lower total tax burden in the economy. Lower tax burden is typically preferred by investors; therefore, I expect a positive sign in the regression.

BUSINESS refers to the Business Freedom indicator, or a quantitative measure of how costly it is to start, operate, and shut down business in the particular country. The higher the indicator, the less red tape and administrative burden there is in the country. A positive sign is expected in the model as more red tape is associated with additional costs for investors.

INVEST refers to Investment Freedom, or the ability to move capital freely across industries and countries. Countries with no restrictions on capital movement would score the highest in the indicator. I expect a positive sign in the regression as investors typically seek free movement of capital on the back of efficient allocation of resources.

Table 7 | Determinants of FDI inflows into Visegrad countries using Heritage Foundation indices

	Model 1-FE	Model 2-FE	Model 3-FE	Model 4-FE	Model 5-FE
D_CORR_1	-0.0124***	-0.0119***			
	(1.11e-07)	(4.85e-05)			
D_FISC_1	0.0067***		0.0094***		
	(4.99e-017)		(0.0007)		
D_BUSINESS_1	0.0020			0.0002	
	(0.4091)			(0.8069)	
D_INVEST_1	0.0179***				0.0178***
	(8.49e-018)				(1.03e-012)
LGDP_1	-0.2189	-0.2215	-0.2292	-0.2500	-0.2539
	(0.8318)	(0.8330)	(0.8254)	(0.8067)	(0.7993)
GROWTH_1	0.0126	0.0122	0.0091	0.0101	0.0111
	(0.7106)	(0.7291)	(0.7553)	(0.7585)	(0.7402)
D_OPENNESS	0.0055	0.0048	0.0046	0.0046	0.0054
	(0.5327)	(0.5678)	(0.5785)	(0.5731)	(0.5305)
LWAGE	1.1762***	1.1994***	1.1938***	1.1982***	1.1786***
	(0.0034)	(0.0026)	(0.0034)	(0.0023)	(0.0022)

D_TAX	-0.0281	-0.0209	-0.0224	-0.0204	-0.0262
	(0.5715)	(0.6721)	(0.6550)	(0.6733)	(0.5811)
EDUC_1	-0.0148**	-0.0204***	-0.0214***	-0.0214***	-0.0162**
	(0.0337)	(0.0038)	(0.0058)	(0.0056)	(0.0441)
Adj. R-sq.	0.3651	0.3918	0.3900	0.3884	0.3956
F-test (model)	0.0001	0.0011	0.0012	0.0013	0.0008
S.D. (dep.var.)	0.9586	0.9586	0.9586	0.9586	0.9586
Obs.	63	63	63	63	63

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

The findings suggest that most institutional variables except business freedom, along with the macroeconomic variables such as wages and education, determine FDI inflow into the Visegrad countries. It is worth mentioning that GDP per capita does not have the expected sign although it is statistically significant. This may be due to the fact that the sample consists of only four countries, so the scope for variation is limited. Moreover, the sign for corruption did not meet our expectations either, which may imply that investors think that institutions in this specific set of countries have a settled regulatory framework, not requiring further intervention. The outcome is, however, in line with Egger & Winner [2005], who found a positive relationship between corruption and FDI on a sample of 73 countries. Analysing the model by singly adding the institutional variables, we obtain similar results and significance of variables as stated previously. The adjusted R-squared suggests that the model explains only close to 40% of variability of the dependent variable and is similar across specifications, with no specification standing out. The explicative value of the model is therefore rather low, meaning that other factors, not included in the model, such as FDI inertia may also play a role for this group of countries.

Table 8 | Determinants of FDI inflows into Baltic countries using Heritage Foundation indices

	Model 1-FE	Model 2-FE	Model 3-FE	Model 4-FE	Model 5-FE
D_CORR_1	-0.0055	0.0012			
	(0.7390)	(0.9592)			
D_FISC_1	0.0644**		0.0662**		
	(0.0200)		(0.0474)		
D_BUSINESS_1	0.0895*			0.0888*	
	(0.0954)			(0.0876)	
D_INVEST_1	0.0332*				0.0303*
	(0.0903)				(0.0888)
LGDP_1	-2.0287**	-1.5268	-2.4816	-1.3788	-1.2427
	(0.0431)	(0.4376)	(0.1133)	(0.3109)	(0.5030)
GROWTH_1	0.0392	0.0573	0.0544	0.0426	0.0569
	(0.1899)	(0.1349)	(0.1541)	(0.1868)	(0.1244)
D_OPENNESS	0.0273	0.0267	0.0284	0.0254	0.0273
	(0.2362)	(0.3384)	(0.2565)	(0.2818)	(0.2959)
LWAGE	2.5896***	2.4142*	3.0008***	2.1954**	2.2331*
	(0.0003)	(0.0505)	(0.0053)	(0.0140)	(0.0675)
D_TAX	-0.1599	-0.1641	0.0053	-0.1596	-0.1634
	(0.1380)	(0.2089)	(0.1076)	(0.1954)	(0.1652)
EDUC_1	0.0452*	0.0455	0.0560*	0.0440***	0.0379
	(0.0638)	(0.1147)	(0.0501)	(0.0078)	(0.1655)
Adj. R-sq.	0.4986	0.4429	0.4583	0.5189	0.4483
F-test (model)	0.1167	0.2585	0.2133	0.1098	0.2135
S.D. (dep.var.)	1.3678	1.3678	1.3678	1.3678	1.3678
Obs.	46	46	46	46	46

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

The regressions performed for the Baltics and the Balkans separately suggest a more important significance of the institutional framework than in the previous case of the

Visegrad countries. For the Baltics, fiscal freedom is significant and for the Balkans business and investment freedom play a role in investors' decision making processes. An interesting finding is that for the Baltic countries, the wage level is significant for investors, confirming our previous hypothesis that higher salaries might be induced by a more solid employee skills development. Other macroeconomic variables seem not to play an important role except education, which matters especially under the setup including business freedom. It seems that investors put an emphasis on more educated workforce when deciding to expand and operate their business activities in the Baltics. Also, judging purely from the fitted values, the model seems in general to better suit this set of countries than the Visegrad group. Yet again, with the R-squared close to 50 %, the explicative value of the model is not very high, though somewhat better than previously.

Table 9 | Determinants of FDI inflows into the Balkans using Heritage Foundation indices

	Model 1-FE	**Model 2-FE**	**Model 3-FE**	**Model 4-FE**	**Model 5-FE**
D_CORR_1	-0.01238***	-0.0051			
	(8.70e-09)	(0.1132)			
D_FISC_1	0.0130		0.0216		
	(0.4260)		(0.3724)		
D_BUSINESS_1	0.0413**(0.0157)			0.0487*	
				(0.0766)	
D_INVEST_1	0.0092***				0.0211***
	(3.37e-09)				(0.0057)
LGDP_1	0.5704***	0.4588***	0.4724	0.5016***	0.3652***
	(0.0002)	(0.0005)	(0.1544)	(0.0028)	(4.09e-015)
GROWTH_1	0.1278***	0.1260***	0.1303***	0.1239***	0.1324***
	(2.02e-024)	(3.57e-017)	(8.45e-040)	(2.29e-016	(2.18e-020)
D_OPENNESS	0.0135***	0.0165***	0.0172***	0.0119***	0.0168***
	(2.60e-017)	(9.67e-011)	(1.04e-05)	(9.84e-022)	(1.45e-07)
LWAGE	0.2079	0.3815***	0.3881**	0.2227	0.3759***
	(0.1171)	(0.0018)	(0.0239)	(0.2258)	(1.46e-06)
D_TAX	-0.0152	0.0432***	-0.0500***	0.0057	-0.0451***
	(0.4113)	(0.0012)	(1.25e-016)	(0.8713)	(4.31e-05

EDUC_1	0.0835***	0.0847***	0.0824***	0.0850***	0.0971***
	(1.24e-021)	(1.21e-014)	(5.76e-05)	(8.07e-027)	(8.19e-018)
Adj. R-sq.	0.5980	0.5699	0.5849	0.6145	0.6080
F-test (model)	0.3730	0.7214	0.6146	0.3915	0.5371
S.D. (dep.var.)	0.9705	09705	0.9705	0.9705	0.9705
Obs.	40	40	40	40	40

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

The results for the Balkans show a major significance of the macroeconomic variables along with the institutional indicators. The lagged values of GDP per capita, GDP growth level, and education level seem to be the main drivers for investors. Since the countries in the sample are developing economies, investors put an emphasis on these aspects more before deciding on further investment plans. In comparison with the countries in the first two groups, where a strong macroeconomic development is assumed, the Balkans are subject to a more complex review from the economic, social and institutional perspective. Taking all the sets of countries into consideration, it appears that macroeconomic development plays a more important role for investors in the Balkans along with the institutional indicators, while for the Visegrad and Baltic states, institutional development has a higher importance under the circumstances that they have achieved a certain economic stability.

3.2 Estimation results using EBRD Transition Indicators

In Tables 10-12 below, the institutional variables in equation [1] refer to the following:
PRIVAT refers to a large-scale privatisation indicator, where a higher value refers to more private ownership in the country. I expect a positive sign in the regression since investors conventionally, albeit not always, prefer to invest in an environment with a predominance of the private sector.

GRES denotes governance and enterprise restructuring, where lower values signify soft budget constraints and poor corporate governance, while higher values stand for rigorous capital control typical in advanced economies. I expect a positive sign for the reasons discussed above.

PRICE stands for price liberalisation, whereby low values present a situation in which most prices are controlled by the government, while high values denote a situation with nearly zero price control outside housing, transport and natural monopolies. A positive sign is expected as investors essentially prefer price-adjustable environments.

TFOR refers to the trade and foreign exchange system indicator. Higher values capture WTO-like standards of trade exchange. Again, I conventionally expect a positive sign in the regression since most investors seek a free trade economic environment.

COMP denotes a competition policy indicator. Higher values signify rigorous competition policy rules, including unrestricted market entry in most industries (at least from the institutional perspective). The sign of this indicator can perhaps vary according to the country concerned as some investors, particularly in low-skilled industries, may find loose competition policy advantageous.

Table 10 | Determinants of FDI inflows into Visegrad countries using EBRD indicators

	Model 1-FE	Model 2-FE	Model 3-FE	Model 4-FE	Model 5-FE	Model 6-FE
PRIVAT_1	-0.1052***	0.1201				
	(0.0012)	(0.1885)				
GRES_1	-0.3283		0.1437			
	(0.1790)		(0.6917)			
PRICE_1	0.5415			0.4391***		
	(0.4872)			(0.0078)		
TFOR_1	0.0915				0.4157***	
	(0.9118)				(2.19e-05)	
COMP_1	-0.1790					-0.1987***
	(0.3158)					(0.0021)
LGDP_1	1.0151***	0.2361	0.1392	0.5929	0.5710	0.3536
	(2.83e-017)	(0.6796)	(0.7676)	(0.2034)	(0.2064)	(0.5143)

GROWTH_1	0.0342**	0.0200	0.0190	0.0298	0.0274	0.0208
	(0.0327)	(0.2136)	(0.2870)	(0.1467)	(0.1506)	(0.1777)
D_OPENNESS	0.0097***	0.0089*	0.0089	0.0103***	0.0102***	0.0084
	(0.0091)	(0.0710)	(0.1776)	(0.0080)	(0.0091)	(0.1515)
LWAGE	0.7587***	1.0136***	1.0462***	0.7114***	0.7450***	1.1261***
	(2.47e-06)	(1.03e-06)	(0.0095)	(0.0024)	(0.0001)	(0.0001)
D_TAX	-0.0560*	-0.0421	-0.0397	-0.0576	-0.0546	-0.0361
	(0.0676)	(0.2317)	(0.3749)	(0.1038)	(0.1028)	(0.3492**)**
EDUC_1	-0.0198***	-0.0175***	-0.0189***	-0.0202***	-0.0208***	-
	(5.45e-014)	(0.0001)	(0.0041)	(3.37e-010)	(1.60e-012)	0.01793***
						(0.0008)
Adj. R-sq.	0.5141	0.5151	0.5134	0.5355	0.5326	0.5149
F-test (model)	0.0007	0.0012	0.0009	0.0002	0.0002	0.0007
S.D. (dep.var.)	1.028	1.0287	1.028	1.0287	1.0287	1.0287
Obs.	75	75	75	75	75	75

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

The second set of regressions includes the specifications with the EBRD indicators to assess the institutional framework specific of transition economies. In the first set of countries, institutions seem to play an insignificant role for the investors in the setup with the complete et of institutional indicators. Performing separate regressions, we observe a 1% significance for price liberalisation, foreign exchange system and competition policies. It is safe to assume that investors do not neglect completely the institutional framework but rather assess it under specific conditions and criteria depending on their investment purposes and previous investment trends. I observe the same pattern as with the Heritage Foundation indices for the macroeconomic variables, where wages and education were important determinants of FDI inflows. GDP per capita, growth level and trade openness are significant only in the aggregate model specification assuming that generally investors tend to assess country using

all the aspects. Judging solely from the adjusted R-squared values, the EBRD indicators may be somewhat more suitable metrics for the Visegrad countries than the set offered by the Heritage Foundation, as the models can essentially explain more than half of the variability in the dependent variable. However, the model does not capture the variability of the dependent variable in a very satisfactory manner, and it is therefore questionable to what extent it bears informative or predicative value.

Table 11 | Determinants of FDI inflows into Baltic countries using EBRD indicators

	Model 1-FE	Model 2-FE	Model 3-FE	Model 4-FE	Model 5-FE	Model 6-FE
PRIVAT_1	1.4720***	0.8216				
	(0.0085)	(0.2312)				
GRES_1	0.3074		1.1430**			
	(0.8123)		(0.0150)			
PRICE_1	-10.5927**			-7.81819**		
	(0.0149)			(0.0492)		
TFOR_1	-1.3772*				0.0936	
	(0.0740)				(0.7662)	
COMP_1	-0.8616					-0.6587
	(0.3062)					(0.6859)
LGDP_1	4.8145	3.1133	3.4562	4.4120*	3.7178	4.5708
	(0.1719)	(0.2009)	(0.1506)	(0.0880)	(0.1794)	(0.3387)
GROWTH_1	0.0529**	0.0439*	0.0469***	0.0582***	0.0545**	0.0533**
	(0.0295)	(0.0999)	(0.0011)	(4.30e-09)	(0.0167)	(0.0376)
D_OPENNESS	0.0324**	0.0231***	0.0216***	0.0268***	0.0238***	0.0244***
	(0.0162)	(0.0001)	(0.0018)	(4.07e-06)	(0.0043)	(0.0006)
LWAGE	-0.5621	-1.0627	-1.3277	-0.7446	-1.0577	-1.0492
	(0.6708)	(0.4446)	(0.1800)	(0.5626)	(0.4478)	(0.4382)
D_TAX	-0.2179**	-0.2023*	-0.1962	-0.1962	-0.1977	-0.1981
	(0.0321)	(0.0762)	(0.1104)	(0.1265)	(0.1272)	(0.1497)
EDUC_1	-0.0709*	0.0433	0.0479	-0.0360	0.0435	0.0389
	(0.0927)	(0.3655)	(0.1965)	(0.1149)	(0.2884)	(0.3768)
Adj. R-sq.	0.6956	0.6145	0.6068	0.6577	0.5950	0.5983

F-test (model)	0.0249	0.0721	0.2958	0.0005	0.0205	0.0176
S.D. (dep.var.)	2.0131	2.0131	2.0131	2.0131	2.0131	2.0131
Obs.	57	57	57	57	57	57

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

For the Baltic countries, we observe that the level of private ownership and the progress with corporate governance of the enterprises is one of the most important factors for investors in their decision-making processes. It may be the case since the privatisation process is widely utilised in the former socialist countries. Moreover, the level of GDP growth, trade openness and level of taxation are essential to assess a country's potential to become an investment partner. In this case, relatively high values of adjusted R-squared indicate a relatively good fit of the model.

Table 12 | Determinants of FDI inflows into the Balkans using EBRD indicators

	Model 1-FE	**Model 2-FE**	**Model 3-FE**	**Model 4-FE**	**Model 5-FE**	**Model 6-FE**
PRIVAT_1	1.4431***	0.8923***				
	(0.0006)	(4.89e-05)				
GRES_1	1.4746*		1.1131***			
	(0.0501)		(1.16e-05)			
PRICE_1	-0.2081***			0.4929***		
	(0.0059)			(2.54e-022)		
TFOR_1	-1.2946*				0.7897***	
	(0.0993)				(2.02e-019)	
COMP_1	-1.4072***					-0.1355
	(2.79e-041)					(0.7395)
LGDP_1	-1.3399	-2.3591	-1.3733	-1.7466	-1.6366	-1.1390
	(0.2188)	(0.1175)	(0.1952)	(0.3058)	(0.2049)	(0.5665)

GROWTH_1	0.0657***	0.1102***	0.1299***	0.1349***	0.1291***	0.1345***
	(0.0012)	(3.66e-012)	(1.05e-012)	(5.08e-039)	(1.47e-032)	(7.35e-023)
D_OPENNESS	0.0058***	0.0095***	0.0105***	0.0095***	0.0120***	0.0109***
	(2.17e-05)	(4.95e-011)	(2.47e-023)	(2.46e-019)	(1.18e-017)	(2.54e-027)
LWAGE	0.8711***	1.3976***	1.0855**	1.3855**	1.3862***	1.2482*
	(1.26e-07)	(0.0018)	(0.0117)	(0.0356)	(0.0085)	(0.0916)
D_TAX	0.0681	-0.0050	-0.0501**	-0.0691**	-0.0857***	-0.1108***
	(0.3224)	(0.9181)	(0.0460)	(0.0316)	(0.0014)	(0.0012)
EDUC_1	0.1304***	0.1750**	0.1171*	0.1986*	0.1736**(0.039	0.1800*
	(7.26e-010)	(0.0110)	(0.0684)	(0.0638)	7)	(0.0785)
Adj. R-sq.	0.7117	0.6995	0.6562	0.6463	0.6460	0.6271
F-test (model)	0.5927	0.0549	0.8911	0.1677	0.4327	0.2952
S.D. (dep.var.)	1.2211	1.2211	1.2211	1.2211	1.2211	1.2211
Obs.	43	43	43	43	43	43

*Note: The asterisks "***", "**" and "*" indicate significance at 1%, 5% and 10% level, respectively. Individual p-values are in parentheses. Meanwhile, "D" refers to a first difference of the variable and "_1" is a one-year lag of the particular variable.*

Source: Author's calculation

Finally, for the Balkans, a decisive impact of institutional along with macroeconomic variables is observed. In comparison with the Baltics, the whole institutional environment is weighted accordingly. Among the main drivers, private enterprise ownership, efficient corporate governance, price liberalisation and removal of tariff barriers seem to be the main institutional determinants of FDI inflows. Moreover, the macroeconomic basis and potential are intensely considered for further investment plans. Also, the fit of the model is very satisfactory, pointing to the fact that the specification suits the Balkans the most and/or the four selected countries qualify more fully as emerging markets than in the case of the previous groups.

Yet, in more general terms, the adjusted R-squared for specifications incorporating EBRD indicators seems to have a more robust explanatory power, assuming that this specific set of

indicators fits the model better. We observe a similar pattern when comparing with the results for the Heritage Foundation indices, which emphasise that the Balkans undergo a complex review due to their current economic and social framework.

Conclusions

It was demonstrated that institutional development plays a non-negligible role in determining the level of investment inflows into transition economies. When comparing the results among the groups of selected countries using the Heritage Foundation indices, the Balkans are subject to a more complex screening of both macroeconomic fundamentals and institutional indicators. Assuming that the first two sets of countries have a settled and well-functioning regulatory framework similar to most developed Western economies, the dual emphasis is more vivid in the developing countries such as those in the SEE region. The main institutional determinants significant for investors are business and investment freedom and denote the importance of a good regulatory framework and absence of tariffs and non-tariff barriers affecting trade levels. Even so, overall results for the benchmark performed with the Heritage Foundation indicators suggest a modest impact of institutions on investment inflows.

To extend the previous empirical research and provide a comparative assessment, EBRD indicators are incorporated into our model specification along with the macroeconomic fundamentals. The results stress the importance of economic variables (growth level, trade openness, and corporate taxation level) along with the institutional factors (i.e., private enterprise ownership, efficient corporate governance, and price liberalisation), yet to a lesser extent. The importance of the enumerated variables varies across the country sample, while for the Balkans a similar pattern as in the case of the Heritage Foundation indices is observed. Still, the impact of institutional variables seems to be on a lower scale than the results presented in the existing literature, both theoretical and empirical. Macroeconomic variables seem to play a more significant role in aggregate than the institutional ones. Also, it can observed that different groups of countries behave differently, an observation not explicitly made in the previous research.

Still, limitations of the model include the impossibility to incorporate all post-communist countries due to lack of data. Moreover, the investment incentives indicator was not

incorporated due to missing granularity of the already large-scale data and the general setup of the model. Incorporating more countries and, most importantly, grouping them according to their common features, allowed to emphasise that institutional frameworks vary across geographical regions and investors assess their quality considering more complex factors. Moreover, an interesting finding suggests that macroeconomic fundamentals behave differently across datasets, stressing the uneven economic and social development.

Although the most important theoretical and empirical questions were addressed, room remains for further research. For example, the analysis with micro and/or sectoral data would allow for a more detailed overview of the institutional framework, more granular results, and a more thorough assessment of institutional determinants across geographical regions. At the same time, controlling attentively for investment incentives, still so much present in some industries, would render the results even more accurate.

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Appendix

A.1 Correlation Matrix between institutional variables for Visegrad countries using Heritage Foundation indices

	CORR	FISC	BUSINESS	INVEST
CORR	1.0000	-0.2878	0.2687	0.2879
FISC		1.0000	-0.3695	0.1297
BUSINESS			1.0000	0.3298
INVEST				1.0000

A.2 Correlation Matrix between institutional variables for Baltic countries using Heritage Foundation indices

	CORR	FISC	BUSINESS	INVEST
CORR	1.0000	0.2362	0.6556	0.7568
FISC		1.0000	0.2358	0.0743
BUSINESS			1.0000	0.6849
INVEST				1.0000

A.3 Correlation Matrix between institutional variables for Balkan countries using Heritage Foundation indices

	CORR	FISC	BUSINESS	INVEST
CORR	1.0000	-0.0985	0.2395	0.1043
FISC		1.0000	0.5270	0.2754
BUSINESS			1.0000	0.6271
INVEST				1.0000

A.4 Correlation Matrix between institutional variables for Visegrad countries using EBRD Transaction indices

	PRIVAT	GRES	PRICE	TFOR	COMP
PRIVAT	1.0000	0.5663	0.5423	0.5481	0.5754
GRES		1.0000	0.4045	0.3374	0.8583
PRICE			1.0000	0.9746	0.1635
TFOR				1.0000	0.1412
COMP					1.0000

A.5 Correlation Matrix between institutional variables for Baltic countries using EBRD Transaction indices

	PRIVAT	GRES	PRICE	TFOR	COMP
PRIVAT	1.0000	0.7417	0.3639	0.6570	0.6886
GRES		1.0000	0.4621	0.5326	0.7153
PRICE			1.0000	0.3350	0.3664
TFOR				1.0000	0.6344
COMP					1.0000

A.6 Correlation Matrix between institutional variables for Balkan countries using EBRD Transaction indices

	PRIVAT	GRES	PRICE	TFOR	COMP
PRIVAT	1.0000	0.7909	0.6944	0.6241	0.8149
GRES		1.0000	0.5181	0.5404	0.8117
PRICE			1.0000	0.6618	0.4305
TFOR				1.0000	0.4702
COMP					1.0000