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The determinants of the Inward Foreign Direct Investments: An empirical analysis from Countries in Transition

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GLODEP 2019

Declaration

I declare in lieu of oath that I wrote this thesis myself.
All information derived from the work of others has been acknowledged in the text and the list of references is given.

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Theses guidelines:

The objective of the following thesis is to examine empirically the determinants that account for and promote investments in Armenia after the collapse of the Soviet Union and declaration of the independence of the country. Being a transition economy, Armenia relies heavily on and can have potential benefits from the FDI inflows to revitalize its economy. The study would present and analyse the general characteristics of the FDI inflow trend and examine the key determinants attracting those flows. The policy recommendations based on the empirical results of the thesis would suggest some possible government responses to increase them and maximize the gains of the country from those flows.

Recommended resources:

Alfaro, L., & Chauvin, J. (2017). Foreign Direct Investment, Finance, and Economic Development. Boston: Harvard Business School.
Caucasus Analytical Digest. (2016). No. 82: Foreign Direct Investment. Foreign Direct Investments in Armenia: Opening the Doors is Not Enough to Attract Investment, pp. 2-27.
Donu V., Janíčko M. (2015). Institutional Determinants of Investment Inflows into Transition Economies. Journal of Central and Eastern European Economic and Management Issues, 23 (5), 3-23.
Gevorkyan, A. V. (2015). The legends of the Caucasus: Economic transformation of Armenia and Georgia. International Business Review 24, 1009-1024.
Sandhu, D. N. (2016). Determinants of Inward Foreign Direct Investment (1994-2014): The Case of India. Journal of Indian Management , 83-94.
World Bank. (2018). Global Investment Competitiveness Report 2017/2018: Foreign Investor Perspectives and Policy Implications. Washington, DC: World Bank.doi:10.1596/978-1-4648-1175-3.

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ABSTRACT

The thesis aims to examine determinants that account for and promote inward foreign direct investments into 28 transition countries after the collapse of the Soviet Union. While potential benefits from investment flows are well-recognized, they are never guaranteed. Therefore, policies adopted by the governments of the respective hosting countries may have an essential role to play in attracting and sustaining investments to maximize their benefits.

The transition countries were divided into three country groupings according to their regional location and they were analyzed separately. Particularly, the differences in size and timing of the accommodated investments within these groups and among them was discussed considering dynamics of investment flows and stocks starting early 1990s. The main motivation sought by investors in each of the region was identified.

The empirical part of the thesis aimed at looking whether the investment flows are stimulated by the overall macroeconomic framework or transition specific institutional architecture of these hosting countries. We employed an annual panel data for these countries in transition for 1994-2014 using a fixed effects estimator.

The results suggested that while the institutional setup has some significant effect in attracting investments, the macroeconomic environment of these countries seems to be a more influential determinant to stimulate investments.

Keywords: foreign direct investment, transition, determinant

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LIST OF ABBREVIATIONS

CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
EEC	Eastern European countries
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
GDP	Gross domestic product
HF	Heritage Foundation
IMF	International Monetary Fund
MNC	Multinational corporation
OLI	Ownership, Localization, Internationalization
OLS	Ordinary least squares
PPP	Purchasing power parity
SEE	Southeast European countries
UIS	UNESCO Institute for Statistics
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNESCO	The United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar
WB WDI	World Bank World Development Indicators Database

CHAPTER I. INTRODUCTION

Considering the growing importance of the private sector as an actor and a funding source for the development processes of the countries, foreign direct investment (FDI) developments are continuously under the spotlight. Ample research, including both theoretical and empirical, has been conducted to reveal the decisive factors, which explain the location choice of the multinational firms in making their investment decisions. Moreover, the research topic is investigated and relevant for both developed and developing countries. Such a strong interest towards the FDI determinants for countries of different development levels is not surprising considering the non-debt creating and a relatively stable nature of the FDI flows compared to other international private funding sources available for the host countries (Krkoska, 2001). Therefore, the wide range of the available studies aim at providing policy recommendations to the governments of the respective countries to make changes in their overall macroeconomic framework and institutional architecture to boost the FDI flows and take an advantage of all the benefits that these flows can provide.

Yet, regardless its importance in the transition process and the potential benefits that the transition economies can reap from the inward FDI flows to further integrate into the global economy, the recent empirical analysis of the determinants of the foreign direct investments covering all the transition economies after the collapse of the Soviet Union and providing results for each of transition regions are rather sparse. The vast majority of the studies on transition economies and FDI flows is focused on relatively advanced Eastern European countries, while countries in Southeast Europe and Commonwealth of Independent States still stay in the shade. Moreover, to the best of our knowledge, there is no recent empirical research, which covers all these transition countries in these three regions and presents result for each of them separately.

Thus, to fill in this gap in the literature, the following thesis contributes to the available research by clustering the transition countries into three groups based on their regional position. The first grouping of countries consists of Southeast European countries (SEE). The second group includes the Commonwealth of Independent States (CIS) countries, including Georgia,[1] while the third grouping incorporates the Eastern European countries (EEC), which are currently members of the European Union.[2]

The aim of the thesis is to present analysis of inward FDI flows in these three transition regions in their quest to attract foreign investments. And most importantly, to provide robust evidence related to the determinants of the inward FDI flows in these countries after the collapse of the Soviet Union. In particular, to identify the motivation and the main determinants of the FDI inflows in these transition regions and see whether the investors are attracted more by the macroeconomic framework or the

[1] Hereafter when referring to the CIS region, Georgia would be included in it considering its geographic position and similar economic performance.
[2] The list of the selected countries that are grouped into three transition regions is presented in Annex I.

transition specific institutional setup in each of these regions. For this purpose, an annual panel data for the period of 1994-2014 for 28 countries in transition is employed using a fixed effects estimator.

The structure of the thesis is as follows: the second chapter provides a brief theoretical grounding on the determinants of the FDI flows, motivation sought by investors, as well as the potential benefits for the host countries. The third chapter discusses the existing empirical research in the context of countries in transition. This is followed by the fourth chapter, which presents stylized facts about inward FDI flows into each of the three regions and tries to identify the motives sought by investors. Afterwards, the empirical part and methodology employed in the thesis is discussed in the chapter five. The sixth chapter elaborates on the interpretation of results. Finally, chapter seven concludes and provides some policy recommendations.

CHAPTER II. THEORETHICAL GROUNDING

The end of the Bretton-Woods system gave rise to the financialization of economy and generated networks of international production, which blurred the location boundaries of operation of multinational corporations (MNC). This granted them a possibility to expand overseas by freely moving capital across countries and regions. As a result, the world has witnessed an increasing FDI flows trend since 1970s (Te Velde, D. W., 2006).

However, this was not the case of countries in transition. Being under "the iron curtain", these countries were not exposed to the free market till the collapse of the Soviet Union. Therefore, the relevance and importance of FDI flows in these countries is discussed only after the change of the political system and transformation of their institutional architecture starting from 1990s.

Before presenting the theoretical grounding of the FDI flows, it is useful to look at its definition in order to provide a clear understanding for the upcoming analysis and the research about the FDI determinants and the related policy recommendations for the countries in transition. According to the International Monetary Fund (IMF) (1993), FDI is an international investment made by the direct investor, which is stimulated by the aim of attaining a long lasting interest in a foreign enterprise, residence of which does not coincide with the one of the direct investor. The long lasting interest used in the definition of the FDI entails the enduring relationship created between the parties involved. Such a relationship is established as a result of the fact that the direct investor gains a certain level of the managerial control over the host enterprise. Under this definition, the investment can be considered as a FDI only if the direct investor obtained at least 10% of the ordinary shares or the voting power of the enterprise.

For the FDI definition, the United Nations Conference on Trade and Development (UNCTAD) (2007) distinguishes between the parent enterprise and the affiliated enterprises abroad, which can be incorporated or unincorporated enterprises. The investment can be regarded as a FDI if the parent enterprise, which is the direct investor, as a result of making its investment gains the managerial control over its affiliated enterprises abroad. In particular, it should own over 10% of the ordinary shares or the voting power of the incorporated enterprise abroad, or an equivalent in the case of the unincorporated enterprise abroad, which is in line with the definition provided by the IMF.

Based on these two definitions, the requirement of the 10% ownership of the ordinary shares or the voting power of the host enterprise establishes a lasting relationship between the direct investor and the host country. Such a feature of the FDI differentiates it from the portfolio investment and other types of private international financial inflows, which have a speculative element. They are also characterized with short term interest of the investors and are relatively volatile. On the contrary, the FDI inflows are more "rooted" in the host country and therefore cannot be easily redirected from the host country "in the first sign of crisis" (Loungani, P., Razin, A., 2001). In such a way, the FDI inflows may create potential benefits for the host economy that cannot be attained by the other types of private

capital inflows. Specifically, a transfer of technology is listed among the main potential gains that the host country can accommodate as a result of the FDI inflows. The explanation of the technological transfer is that the direct investors most probably provide the host enterprises with new types of capital inputs. In the similar vein, the FDI inflows may lead to human capital development of the FDI accommodating country due to the transfer of knowledge and skills through the trainings organized for the employees of the hosting enterprise, especially when a new type of the business operation is being promoted. Moreover, the FDI inflows may become a stable source of revenue mobilization for the host economy by the contributions in the form of corporate tax revenues by the foreign direct investors (Loungani, P., Razin, A., 2001).

Taking into consideration, the abovementioned channels through which the FDI could contribute to boosting the economic performance of the recipient country and its development, many developing countries are inclined to prefer FDI compared to other types of private international financial inflows. But what are the benefits of the foreign direct investors in this regard?

As the famous framework of OLI paradigm suggests, the FDI flows are determined by some advantages of the MNC, namely ownership advantages (O) and location advantages (L), which are accomplished through internalization (I) decision of those enterprises (Dunning, J. H., 1988). Ownership advantages provide MNCs with a competitive advantage over the domestic firms and allow them to transfer resources to a foreign country. Location advantages (L), which indicate "where" to produce, identify the most suitable location for a specific business to operate and therefore direct the FDI flows towards the host country, which has the desired and the most applicable conditions in place for that specific business operation. Ultimately, internationalization is a trade-off decision made by MNCs on whether to transfer their ownership advantages to another firm operating in a foreign country or to simply sell them in an external market. Even though the OLI paradigm clearly separates the sets of advantages determining the FDI flows, it should be noted that they are interlinked and may have a combined effect on the investment decision processes of the enterprises.

Continuing this line of thought, Dunning and Lundan (2008) expand on the motivation sought by MNCs in making their FDI decisions and propose four classic investment motivations: resource seeking, market seeking, efficiency seeking and asset seeking.

Resource seeking MNCs are attracted by the resources available in the host country, which might not be found in their respective countries of residence. These resources include natural resources, raw materials or cheap labor. Conventionally, the natural resource seeking FDIs are considered as one of the major determinants of the FDI flows. Yet, the mere presence of natural resources in the host country does not automatically lead to the FDI inflows as the natural resources can be traded. Nonetheless, the FDIs can have an important role to play in the resource reach country in the context of the limited capital or necessary technical skills, as the extraction of resources requires large amount of investment and suitable infrastructure (UNCTAD, 1998).

Market seeking FDI motivation is based on the possibility of MNC to enhance its operational coverage by entering the domestic market of the host country and boosting the sales there due to an access to a larger customer base. Generally, characteristics of host countries, such as the market size and the growth rate of economy attract the market seeking FDIs (Dunning, J., Lundan, S. M., 2008).

As for the efficiency seeking FDIs, the aim of the investing company is to lower the manufacturing costs by centralizing the production or some elements of its value chain in a specific location and in such a way serving to multiple markets. As such, it is suggested that the investing company, which pursues an efficiency seeking FDI motivation, tries to benefit from relocation of its production to host countries with favorable institutional arrangements, policies and market structures.

Lastly, in the case of the asset seeking investment motivation the investing enterprise aims to acquire strategic assets of the hosting firm that has competitive advantage, such as technology or a brand name. This type of the investment motivation is more likely to occur between more advanced economies rather than countries in transition. However, in the context of the countries in transition the process of privatization of their economies could be regarded as a specific asset seeking FDI motivation for MNCs. The explanation is that due to the privatization process of the host economy, MNCs are generally offered more favorable taxation policies as well as the prices in the host countries relatively lower compared to ones in their respective countries of residence (Estrin, S., Uvalic, M., 2013) (UNCTAD, 2008).

These four different motivation types of the inward FDI flows may also lead to diverse potential benefits accrued to the host country. Specifically, resource seeking FDI can augment government revenues. Yet, there is also another side of the coin, as sometimes the resource reach host economies may mainly rely on the revenues generated by natural resources neglecting the domestic revenue mobilization mechanisms, which are essential for the development of the country. Market-seeking FDI introduce new goods and services to the domestic market of the host country. In such a way, domestic population as well as the firms operating in the host country may gain access to more affordable and higher quality products. Asset seeking investments lead to an expansion of the domestic firms with comparative advantage and incorporate them to an international network of enterprises. Efficiency seeking FDI may result in new jobs in the host country, technological transfer and integration of the host country into the global value chain. Identification of the FDI motivation type in the host country is pivotal as the response of each investment type to the investment policy measures promoted by the host country government may differ (World Bank, 2018). In general, resource seeking, market seeking and asset seeking FDI investments do not necessarily respond to the changes in overall investment climate of the host country as long as the desired resources or the host firm with specific characteristics can be found in the host country. On the contrary, efficiency seeking investments, which aim to minimize the costs of operation, seem to be more responsive to the changes in policy measures or the overall macroeconomic conditions of the host country, which may affect the costs or the exchange of goods and services with the rest of the world. (World Bank, 2018)

CHAPTER III. LITERATURE REVIEW

This part of the thesis presents the results of the available empirical research for the inward FDI determinants, which are relevant to the context of the economies in transition. Such an approach would give us a possibility to identify the main potential determinants of the FDI inflows and later use them as the explanatory variables in our regression analysis.

Jimborean and Kelber (2017) investigated the determinants of the inward FDI flows in Central and Eastern European countries for a period of 1993-2014. Using a panel data general-to-specific approach, they found that for those countries the inwards FDI flows are driven by the macroeconomic conditions in the euro area, as well as the global macroeconomic conditions and global risk environment. Moreover, the results of the study indicated that for the period under the investigation the human capital, market size, development of infrastructure, prior FDI flows, risk premium, tax system, trade openness, competitiveness of the country, its geographic proximity to Western Europe and accession to European Union significantly influenced the inward FDI flows in the CEE region.

In their research, Doytch and Eren (2012), employed the dynamic system generalized method of moments estimator to examine the determinants of the sectoral distribution of foreign direct investments in Eastern Europe and Central Asia between 1994-2008. The authors found that the role of the education attainment of the labor force can differ depending on the sector in which the host enterprise operates. While inward FDI flows are attracted by an educated labor in the service sector, the cheap labor force is more important for investment decisions in the remaining sectors.

Likewise, Bellak, Leibrecht and Riedl (2008) analyzed the role of labor costs as the main determinants of the FDI in the selected Central and Eastern European countries for the period of 1995–2003 applying a panel-gravity model. According to the results of their study, higher unit labor costs and higher total labor costs have a negative impact on the FDI decisions of the enterprises. On the contrary, labor productivity has a positive influence on the location decisions of the FDI flows.

As for the CIS countries, an empirical evidence, which was conducted by Kudina and Jakubiak (2008) and included Ukraine Moldova, Georgia and Kyrgyzstan, was based on the survey of 120 investors. The authors found that the surveyed firms had a market seeking motive to operate in those countries. At the same time, lower costs of production and a skilled labor were also found to be important determinants of the inward FDI flows. Investors regarded volatility of the political and economic environment and corruption as the main impediments for the investment flows.

Bevan and Estrin (2004) employed the random effects method using a panel data on bilateral flows of the FDI from the European Union to Central and Eastern European countries including Ukraine from CIS for the period of 1994 to 2000. They found that unit labor costs, proximity to source country and market size had a significantly positive impact on the FDI flows to the host country. On the contrary, the level of the risk in the host country seemed to have no significant effect on the FDI inflows.

Another evidence from Eastern European Countries by Johnson (2006) was based on the fixed effects panel model for the period of 1993 to 2003. The author used both traditional and transition specific explanatory variables, such as corruption level, transition progress and privatization method. Based on the results of the analysis, the transition process was proven to be an important determinant, while privatization method had an insignificant effect on the inward FDI flows in those countries. As for the corruption level in the host country, the results were difficult to interpret because of the lack of data and strong correlation with other explanatory variables.

Similarly, Donu and Janíčko (2015) stressed the importance of the macroeconomic and to a lesser degree of the institutional variables in attracting the inward FDI flows into 11 post-communist countries. They examined the relationship between the inward FDI flows and the traditional macroeconomic determinants coupled with the transition specific European Bank for Reconstruction and Development (EBRD) institutional indicators for a time span of 1993-2013 using a panel dataset. It should be noted that according to their results, the different groupings of countries (Visegrad countries, Balkan countries and Baltic countries) behaved differently but the overall results showed that macroeconomic variables, namely growth level, trade openness, corporate taxes, wages, education, seemed to be more influential than institutional determinants for investment inflows in these post-communist countries.

Paper by Azizov (2007) analyzed the determinants of the inward FDI flows in the Commonwealth of Independent States (CIS) countries covering 1992-2005 years by employing a random effects panel model. The findings of the paper point out that market size, fiscal balance, abundance in natural resources encourage, while higher inflation rate and risk perception discourage the FDI inflows into CIS countries. Interestingly, control of corruption, was found to be insignificant. Moreover, the EBRD index of large-scale privatization had significant but negative effect, whereas small scale privatization index had a positive effect. As for the EBRD index of reform of non banking financial institutions, it had significant positive effect, while EBRD banking financial institution index was found insignificant for the CIS countries.

Yet, another evidence from the CIS countries employed fixed effects model to investigate the determinants of the FDI inflows covering years between 1995-2010. The findings suggested that the investment decisions made by foreign corporations depended on the FDI stock, market size and natural resource endowments as well as fiscal imbalances and inflation in the host countries (Shukurov, S., 2016). These findings are in line with those stated by Campos and Kinoshita (2003) according to which natural resources and infrastructure are the key determinants of the inward FDIs in CIS countries. However, the paper fails to find some significant results for the EBRD transition indicators for the region.

A recent IMF working paper by Jirasavetakul and Rahman (2018) looked at the FDI peculiarities of New Member States of the EU and Western Balkan countries. The authors used pooled ordinary least squares (OLS) fixed effects model to examine the bilateral FDI inflows for annual panel dataset for 19

host countries and 17 advances donor countries from 2001 to 2014. The findings suggested that relative sizes of the host and donor countries, higher level of education attainment, membership in the EU of host countries had a positive significant association with the FDI flows. On the other hand, the geographic distance between the host and donor countries, high production costs, which included corporate income taxes and unit labor costs in the host countries, affected the FDI flows negatively.

Another paper by Estrin and Uvalic (2013), which used a gravity model for a period of 1990-2011, targeted FDI inflows into 8 Balkan transition countries, particularly Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania and Serbia. While Bulgaria and Romania are already EU member states, the authors justify their inclusion in the sample along with the other non EU member states by their historical linkages, as well as relatively turbulent transition experience of these two countries similar to the rest of the selected countries included in their sample. In line with the previous paper, they used gravity factors and institutional indices in order to estimate the attractiveness of these countries to FDI flows. The findings suggested that the size of the domestic market, the EU announcement, as well as a better institutional framework captured by the EBRD transition indicators had a positive effect on the FDI, while GDP growth rate was found to be an insignificant determinant for Balkans. On the contrary, these same institutional variables were found to be insignificant in the case of CIS countries in a study conducted by Shukurov (2016).

A unique world-wide investor survey and a following World Bank Group's Global Investment Competitiveness Report (World Bank, 2018) covers 734 executives of multinational corporations that operate in manufacturing and service sectors and make investments in developing countries. In such a way, it sheds a light on the determinants of FDI from a perspective of those investors and provides concrete and practical recommendations that could be implemented by government officials in order to attract and sustain the FDI inflows in their respective developing countries. It is worth mentioning that among the respondent enterprises 73% were based in developed countries, while the remaining 27% had their headquarters established in developing countries, which allowed to have a broader view on the topic and possible policy implications considering the growing importance of the South-South cooperation. The findings of the survey suggest that above 80% of the respondents consider political stability, legal and regulatory environment in the host developing country as the key determinants of the FDI before making their investment decisions.

Interestingly, the analysis of the responses revealed that according to the investors, having a stable, a transparent and a predictable institutional framework in the host country is highly valued by the investors and it is preferred to the financial incentives provided by the government of the host country. Over 50% of developing countries offer different types of financial incentives, including very low tax rates, to investors in a hope to boost the FDI inflows into their countries. Nevertheless, according to the results of the survey, on the one hand, these financial incentives do not appear to have much influence on the FDI decisions of the direct investors. On the other hand, they minimize the gains of the host

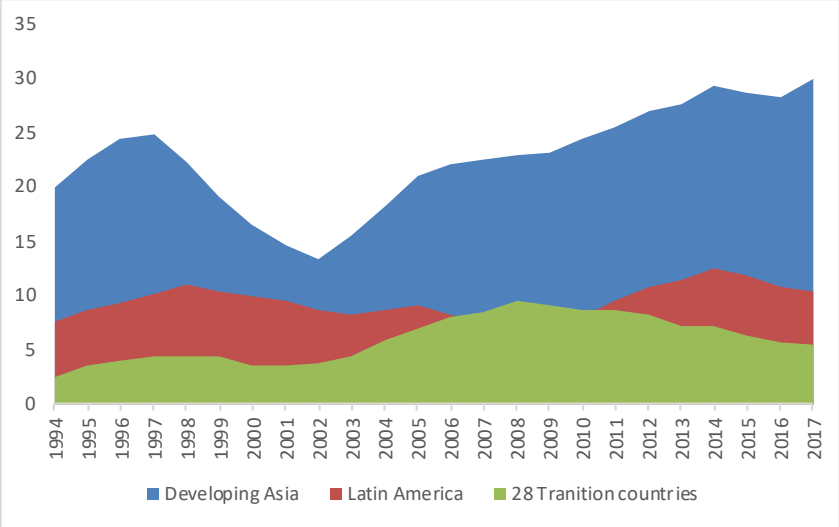
country because of the cuts in the domestic tax base. The overall macroeconomic stability in the host country is the other essential determinant of the FDI inflows as suggested by the findings of the survey.

In summary, based on the literature reviewed and the theoretical grounding, the macroeconomic variables such as GDP and its growth, labor costs, education attainment, corruption, trade openness, resource endowments are proven to be significant FDI determinants, while the results are still blurred in regard to the role played by the institutional and the policy-related variables.

CHAPTER IV. STYLIZED FACTS ABOUT INWARD FDI FLOWS TO POST-COMMUNIST COUNTRIES IN TRANSITION

Theoretically, a passage from the centrally planned to the market-oriented economic system in the post-communist space, was expected to create extremely attractive investment opportunities for the MNC. Moreover, the fact that these countries in transition share some common characteristics such as an educated and cheap labor force inherited from the Soviet system, was believed to make them a top destination for the MNC investment funds (Shiells, C. R., 2003). However, the de facto share of the inward FDI flows in transition economies was less than expected. To get a more comprehensive picture of the inward FDI dynamics into the world regions for the period of 1990-2017, the 5-year moving average FDI inflows are presented below in Figure 1.

Figure 1: Share of FDI inflows into world total by selected regions, 1990-2017 (5 year moving average, percent)



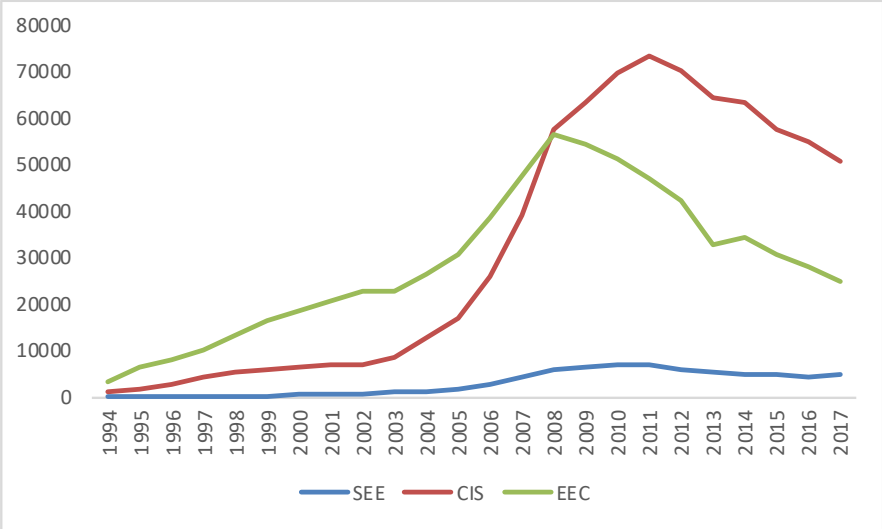
Source: Author's calculations based on UNCTAD data (UNCTADstat).

It can be clearly noticed that the allocation of investments among the developing regions in the world is not in favor of these 28 post-communist economies in transition. In particular, only about 2.5 % of the global FDI inflows was accommodated in the transition economies in early 1990s, while the developing Asia received about 20 % and Latin America around 7 % of the inward investments for the period of 1990-1994. However, the FDI flows to transition economies doubled reaching around 5% in 1995 and kept gradually increasing, except for a short decrease recorded in 2000. Eventually, the inward investments reached their historical peak of 12 % as a share of the overall inward FDI in the world in 2008. The majority of these countries in transition still struggle to recover the level of the inward investments that they have recorded prior to the financial crisis. As of 2017, it is no surprise that there

are more flows into the Developing Asia with its share of 33.3 % of the total FDI. The share of the world inward FDI into the transition economies is only 3.3% and it is about 11 % in Latin America (UNCTAD, 2018).

The intra-regional distribution of the inward FDI flows into the countries in transition throughout time is not commensurate as well (see Figure 2).

Figure 2: Inward FDI flows into three transition regions, 1990-2017 (5 year moving average, million USD)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

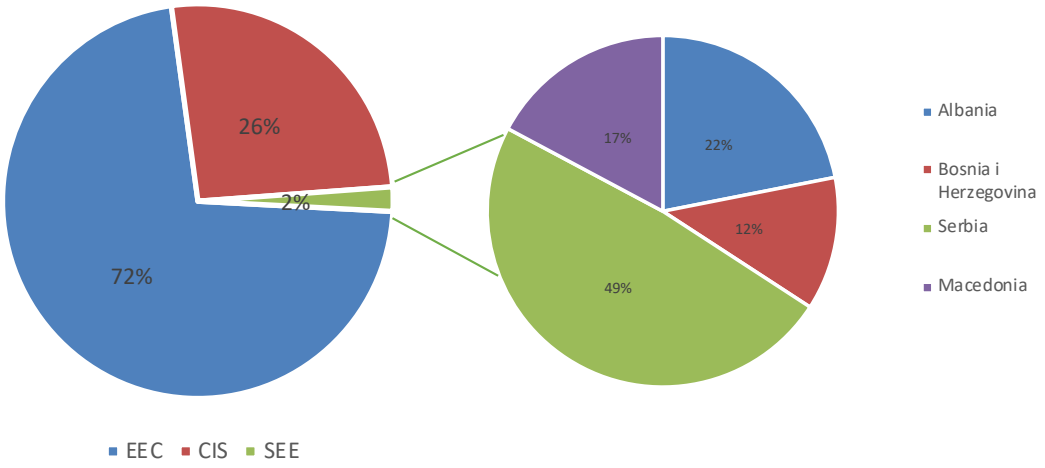
While the vast majority of the FDI inflows was captured by the EEC in the beginning of the transition process, the situation changed dramatically after 2007 when the CIS countries caught up and started to attract more direct investments in the absolute terms. To better understand the underlying possible explanations for such an uneven intra-regional FDI trend and the motivation of MNCs to invest in these regions, the analysis of the stocks and the flows of the inward FDI will be discussed for each of these transition regions.

4.1. FDI inflows to Southeast European region

The SEE region was sliding into the depths of economic and political instability in the early 1990s, which, coupled with the competition from more stable transition economies, can be a possible explanation for the low investments into the region during this period. While the first half of the 1990s witnessed almost no inward FDI into the region, the picture started to gradually change after the Dayton-Paris Agreement in 1995, which terminated one of the Yugoslav wars and launched the "delayed transition" process in the region (Estrin, S., Uvalic, M., 2013). However, during the period of 1990-1999, the stock of FDI in these 5 countries represented only 2 % of the total FDI stock in transition regions (see Figure 3), while their share in total population of 28 transition economies was about 4 %

(World Bank, 2018). The allocation of the FDI within the region was also uneven for this period. The lion's share of the inward flows of FDI, reaching half of the total flows in the region, was accommodated in Serbia (see Figure 3), which reflects the "notorious" acquisition of 49 % in the share capital of "Telekom Srbija" telecommunications company by foreign investors in 1997. Bosnia and Herzegovina became the FDI recipient only after the end of the conflict in the country in 1998, while the FDI stock attracted to Albania and Macedonia was only US $ 0.4 billion and US $ 0.3 billion, respectively.

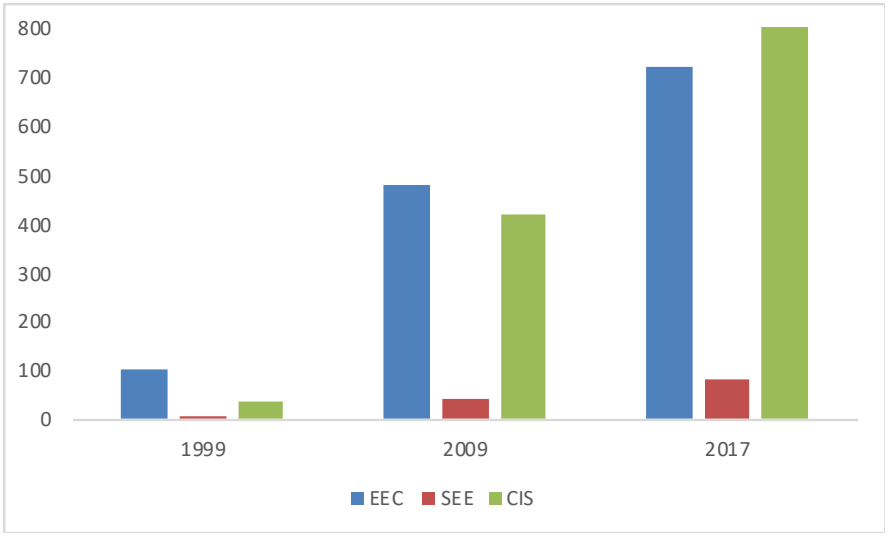
Figure 3: FDI stock in transition regions, 1990 FDI stock in SEE countries, 1990



Source: Author's calculations based on UNCTAD data (UNCTADstat).

A better political and economic situation in the region as well as the possibility of the EU accession starting the late 2000s, triggered the interest of foreign investors and led to increased inward FDI flows into the region and shifted the FDI flows primarily to the services sector (Estrin, S., Uvalic, M., 2013) (Jirasavetakul, L. F., Rahman, J., 2018). Consequently, the FDI stock in the region reached US $ 42 billion (a 17-fold increase) as of 2009 (see Figure 4), which is 5 % of the total flows into three transition regions compared to only 2 % in 1999 (see Figure 3).

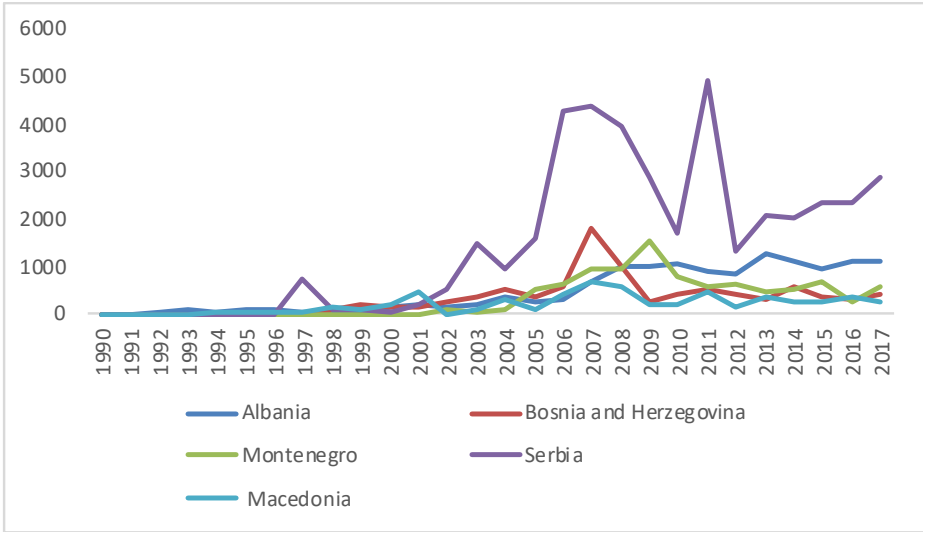
Figure 4: FDI stock in three transition regions, 1999, 2009, 2017 (billion USD)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

Generally, the 2000-2009 period can be characterized as a relatively successful in terms of attracting the inward FDI flows for all the countries in the region. SEE countries reached their historical peak of the inward FDI investment flows of US $ 9 billion in 2007. However, because of the global financial crisis the majority of these countries, with the exception of Albania, experienced a sharp decline in the annual inward FDI flows (see Figure 5).

Figure 5: Annual inward FDI flow into SEE countries, 1990-2017 (million USD)

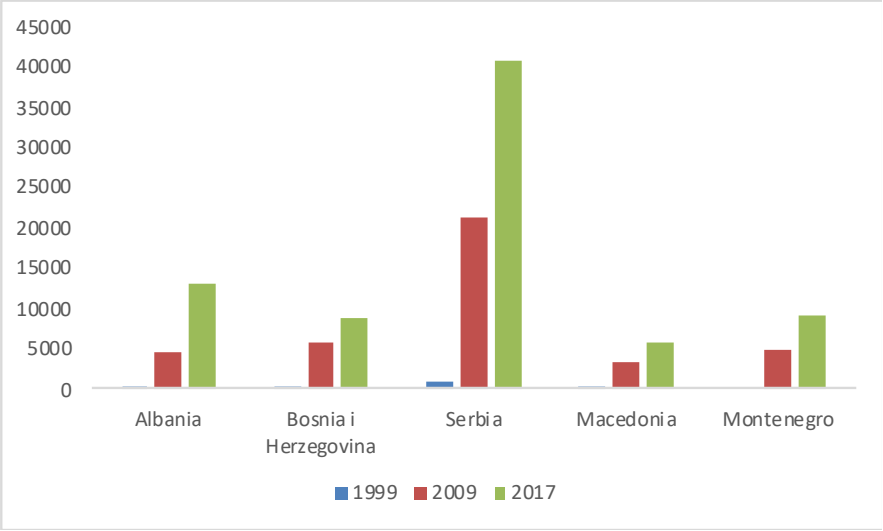


Source: Author's calculations based on UNCTAD data (UNCTADstat).

Particularly, the sharpest decline of about 86% in an annual FDI was registered in the case of Bosnia and Herzegovina in 2009, after reaching a peak of US$ 1,8 billion in 2007. As of 2017, Bosnia and Herzegovina recovered only about 23% of its pre-crisis inward FDI level. This is followed by a

60% decrease in the inward FDI in Serbia (from US $ 4.4 billion in 2007 to US $ 1.7 billion in 2010). However, Serbia registered a new peak of about US $ 5 billion in 2011, mainly thanks to privatization of two publicly owned enterprises: Telekom Srbija and JAT (UNCTAD, 2012). The improvement was followed by a shrunk in 2012 and subsequent years of a slow recovery of its position. Likewise, reaching US $ 1.5 billion in 2009 and having a 50% decline in 2010, Montenegro experienced a sustained decline in the inward FDI flows, equating to only one third of its pre-crisis investment level in 2017. Macedonia follows a similar trend. On the contrary, Albania, having a relatively stable inward FDI flows even after the financial crisis, managed to record a new peak in 2017, which exceeds its pre-crisis level by about 7%. It should be noted, that as of 2017, all 5 countries experience an increase in their annual inward FDI flows, which is supported by a robust GDP growth, creation of new jobs in private sector and strengthening ties with the EU (UNCTAD, 2018).

Figure 6: FDI stock in SEE countries, 1999, 2009, 2017 (million USD)



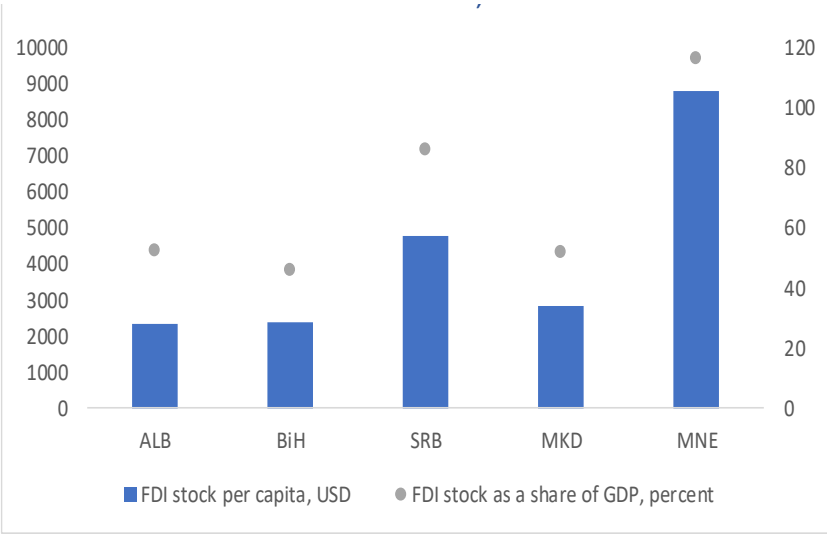
Source: Author's calculations based on UNCTAD data (UNCTADstat).

As for the intra-regional FDI stock distribution, the sharp increase of FDI in the region starting in 2000s can be noticed when we compare FDI stock in 1999 and 2009, while the change from 2009 to 2017 follows a relatively similar trend (see Figure 6).

Moreover, Serbia remains the key FDI recipient by attracting more than half of the overall inward FDI stock in the region in 2017. Such an uneven allocation of the investments and the bias towards Serbia can be explained by the relative sizes of the countries, as Serbia is the largest economy in the region. To see this, we can compare the FDI stock distribution (see Figure 6) to the average FDI stock per capita distribution and the FDI stock as a share of GDP (see Figure 7) within the SEE countries. In this regard, Montenegro, with its 0.6 million population, has overtaken Serbia, which has a population of 7 million people. The ranking of the other countries in the region is almost the same

with the exception that Macedonia comes ahead of Bosnia and Herzegovina. The following ranking remains the same when the stock as a share of GDP is considered.

Figure 7: FDI stock per capita (USD) and FDI stock as a share of GDP (percent) in SEE, 2017



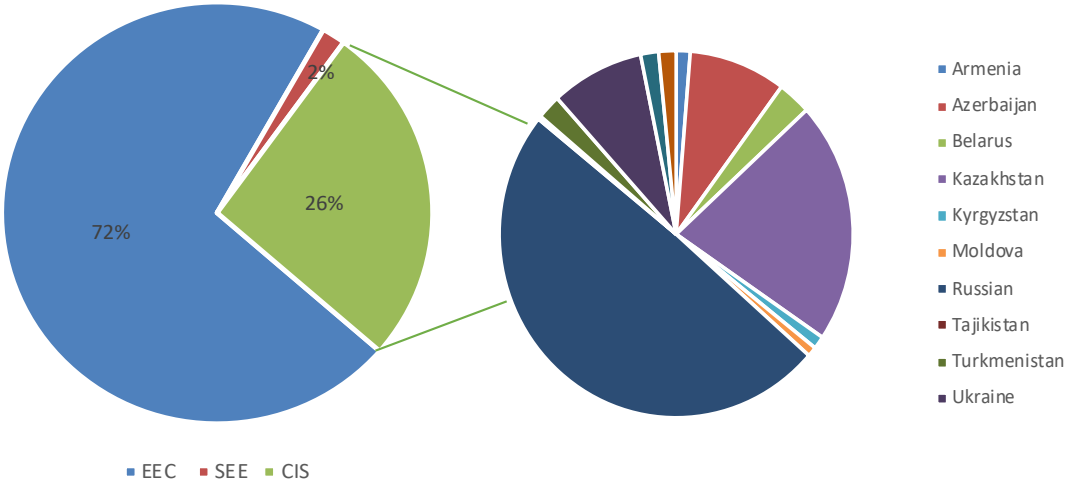
Note: ALB=Albania; BiH=Bosnia i Herzegovina, SRB=Serbia, MKD=Macedonia; MNE=Montenegro.
Source: Author's calculations based on UNCTAD data (UNCTADstat).

4.2. FDI inflows to Commonwealth of Independent States region

The CIS countries have their own turbulent and disastrous post-soviet experience to tell during the early 1990s. The collapse of the Soviet Union gave rise to bloody civil wars, nationalist movements and political chaos in many of these countries, which could explain the less than expected FDI flows. The region was sunk into the swamp of a widespread corruption, informal rules and networks, which brought forth a "clan" system and concentration of power in the hands of the few. The endowment of natural resources was proven to be the key inward FDI determinant in the region for 1990s (Shiells, C. R., 2003) (Kudina, A., Jakubiak, M., 2008). For the period of 1990-1999, the FDI stock in the region constituted only 26% of the total FDI stock in three transition regions (see Figure 8), while the share of CIS in the total population of the transition countries was almost 70% (World Bank, 2018).

The structure of intra-regional allocation of the FDI stocks (Figure 8) also proves the tendency of FDI towards resource rich countries, namely Russia capturing 50% of the overall FDI stock, followed by other energy giants, Kazakhstan and Azerbaijan with their shares of 21% and 9%, respectively. Ukraine also has a significant share of the overall FDI stock representing 9% of the total. At the same time, the low FDI investments for this period can be explained by the financial crisis and the default of Russia in 1998 (Broadman, H. G., Recanatini, F., 2001).

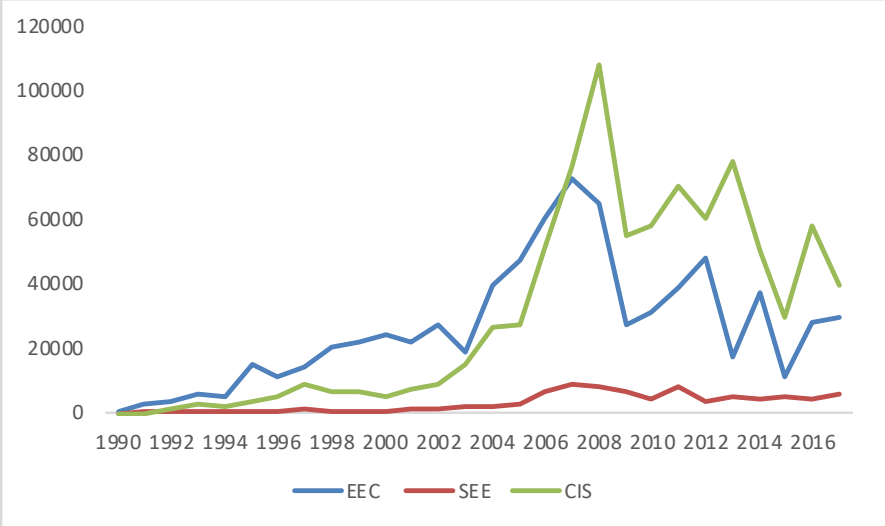
Figure 8: FDI stock in transition regions, 1990 FDI stock in CIS countries, 1990



Source: Author's calculations based on UNCTAD data (UNCTADstat).

From the early 2000s, particularly 2002 onwards, the inward FDI flows into CIS countries were on a strong increase (see Figure 9). Consequently, CIS countries have overtaken EEC countries in 2006. This phenomenon can be possibly explained by a better macroeconomic environment in the region caused by the recovery after the 1998 financial crisis and a robust average real GDP growth in CIS, which reached 7.5% in 2001. Russia, Kazakhstan and Azerbaijan saw a considerable increase in the oil and the related sectors for this period, which further augmented their oil exports.

Figure 9: Annual inward FDI flows into three transition regions, 1990-2017 (million USD)



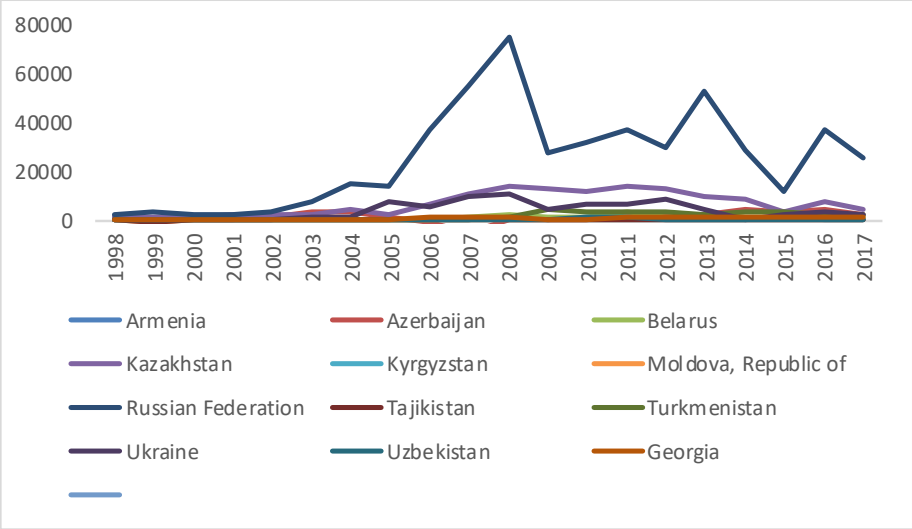
Source: Author's calculations based on UNCTAD data (UNCTADstat).

In addition, by 2008 resource seeking investments into the region were complemented with an increased market-seeking investments. After experiencing years of an increased FDI trend, the global financial crisis slumped the investment flows into the region in 2009 (see Figure 9). Particularly,

looking at annual inward FDI flows into CIS countries (see Figure 10), the FDI flows into Russia contracted by more than 60% in 2009, which was followed by an increasing trend up till 2013.

However, it was not the end of the story, as having hardly been completely recovered after the global financial crisis, another "obstacle" for the biggest country in the region was yet to come from 2014 onwards in the face of the sanctions against Russia as a response to its actions in Ukraine (Russian Analytical Digest (RAD), 2015) (UNCTAD, 2015). The country experienced another cut in its FDI, which almost halved its FDI inflows in 2014. As of 2017, Russia has recovered only 33% of its historical peak record of about US$ 76 billion annual FDI inflows, which was reached in 2008.

Figure 10: Annual inward FDI flows into CIS countries, 1998-2017 (million USD)

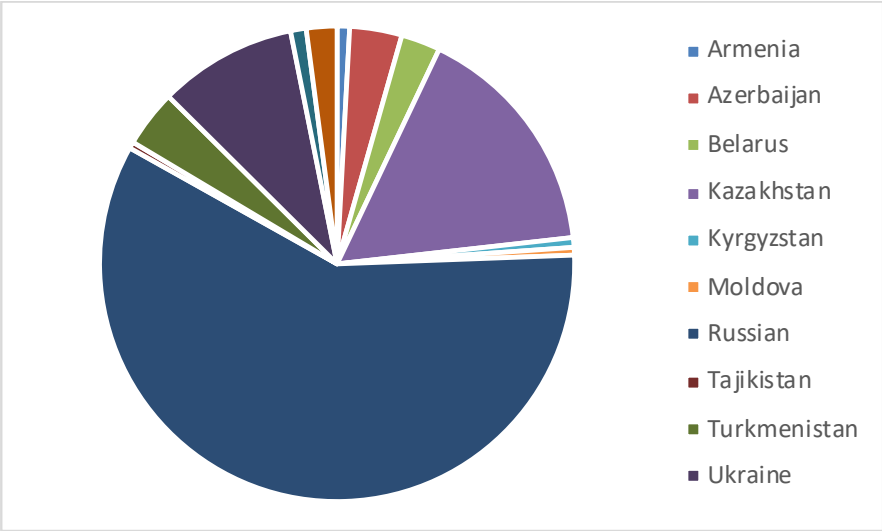


Source: Author's calculations based on UNCTAD data (UNCTADstat).

As for Ukraine, the actions by Russia contributed to an about 90% cut in the inward FDI flows into the country in 2014, which was followed by a 7-fold increase in 2015. As of 2017, Ukraine managed to obtain only 20% of its pre financial crisis historical peak of US$ 11 billion of inward FDI, which was recorded in 2008. On the contrary, Kazakhstan had only 7.5% decline in 2009 followed by a relatively stable period of annual FDI inflows, which was, however, followed by 50% inward FDI decrease in 2015. There are many reasons, which can have a potential contribution to such a declining trend in Kazakhstan including decreasing global oil prices since 2014 and influence of the sanctions imposed on Russia, which is its key trade partner.

Nevertheless, to better understand the FDI stock dynamics of smaller CIS countries, it would be more informative to look at them excluding Russia, Kazakhstan and Ukraine. These three CIS countries together accommodate more that 85% of the FDI stock in the region, representing 59%, 16% and 9% of the total, respectively (see Figure 11).

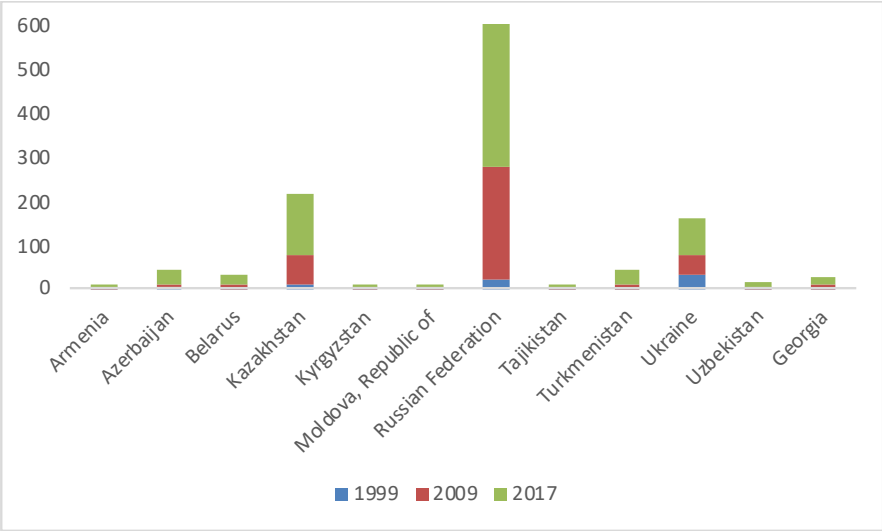
Figure 11: FDI stock in CIS countries, 2017 (percent)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

Moreover, the differences in magnitude of inward FDI stocks attracted to different CIS countries is immense, namely, as of 2017 the FDI stock attracted to Russia (US$ 516 billion) is about 140 times more that the FDI stock accommodated in Tajikistan (US$ 3.7 billion) (see Figure 12).

Figure 12: FDI stock in CIS countries, 1990, 2009, 2017 (billion USD)



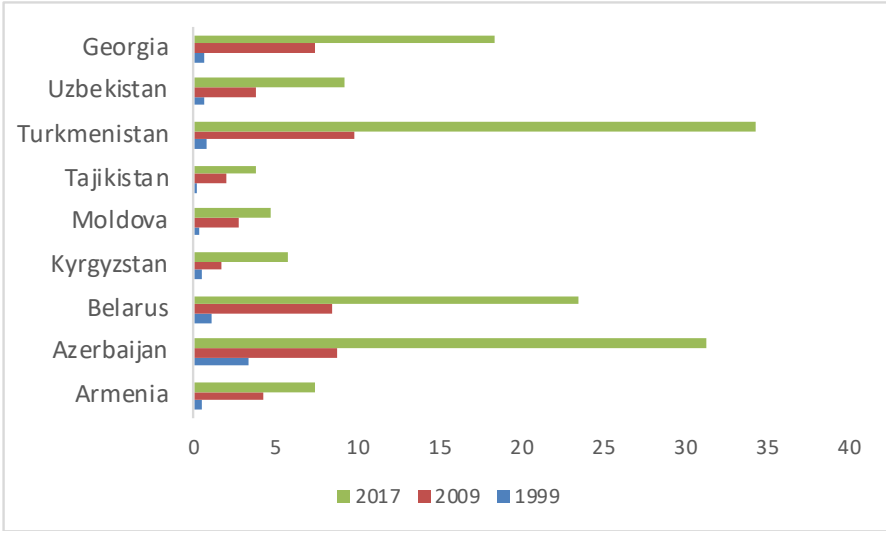
Source: Author's calculations based on UNCTAD data (UNCTADstat).

Looking at the remaining CIS countries, the harshest cut in an annual inward FDI was experienced by Tajikistan, FDI inflows of which decreased more than 80% in 2009. Even though, Tajikistan attracts the smallest share of the inward FDI stock of only US$ 3.7 billion as of 1990-2017 period. Conversely, Turkmenistan and Azerbaijan are the forerunners in terms of accommodating the inward FDI stocks (see Figure 13). Azerbaijan experienced an 8-fold decrease in its inward FDI in 2007

but picked up a continuous growth starting 2009, while performance of the FDI flows into Turkmenistan was relatively stable. The inward FDI flows into these two countries surged after 2009, which can be possibly explained by their focus on gas and oil sectors and the changes in the price of oil (The United States Agency for International Development (USAID), 2011). Namely, the drop in oil prices because of the financial crisis was followed by a considerable recovery of oil prices and boosted the inward FDI flows. In the case of Azerbaijan, a considerable rise of FDI inflows was recorded in 2014. Specifically, the inward FDI flows compared to ones registered in 2013, raised by 68% to US$ 4430 million. The vast majority of the flows (more than 80%) was directed to the energy sector, mainly to construction and maintenance of oil and gas pipelines (United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), 2015).

After about 20% decrease in its annual FDI inflows in 2009, Armenia is on a continuous contraction track in its FDI inflows. As of 2017, the country managed to recover only about 26% of its pre-crisis peak of US$ 944 million reached in 2008. Georgia, on the other hand, was more successful in attracting the inward FDI flows and managed to recover its prior to crisis peak and record a new one of US$ 1,8 billion in 2014. Kyrgyzstan picked up pace in attracting inward FDIs from 2010, as a response to an increase in global prices of commodities, as the FDI flows are mainly directed to the mining sector (UNCTAD, 2015).

Figure 13: FDI stock in CIS countries excluding Russia, Kazakhstan and Ukraine 1990, 2009, 2017 (billion USD)



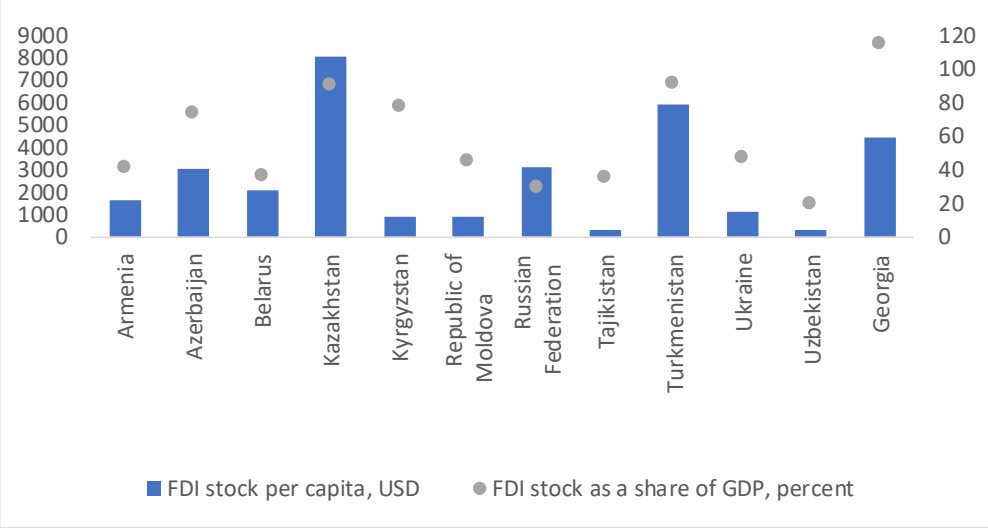
Source: Author's calculations based on UNCTAD data (UNCTADstat).

Belarus is a very interesting case. It managed to attract growing inward FDI flows, while still conserving the state planned model of economy. In particular, the country had 4-fold increase in its inward FDIs in 2007, which was steadily increasing till 2011 and then followed by a decrease of more than 60%. A possible explanation of such FDI dynamics are the close ties with Russian Federation and

therefore the ability of government to sustain preferential prices of oil and gas imports from there, which, nevertheless, started to increase and get aligned to market prices from 2011. Yet, it should be emphasized that the continuity of the success of this model is under a question in the context of the uncertainties in Russia and a consequent raise in energy prices in the country (UNCTAD, 2009).

To account for the differences in magnitude of the countries in CIS, we need to look at the average inward FDI stock distribution among them (see Figure 14). Now Russia has been overtaken by Kazakhstan, Turkmenistan and Georgia. The ranking of other countries remains the same.

Figure 14: FDI stock per capita (USD) and FDI stock as a share of GDP (percent) in CIS, 2017



Source: Author's calculations based on UNCTAD data (UNCTADstat).

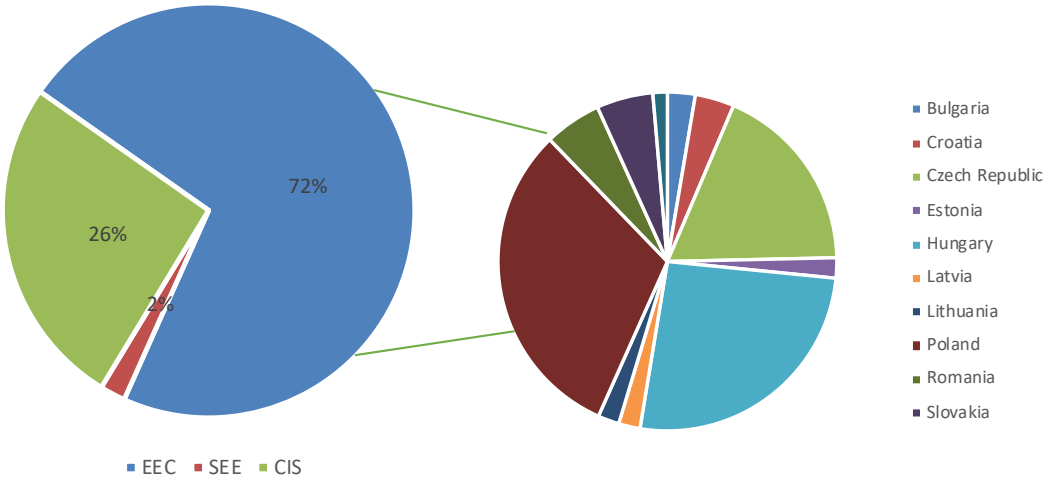
When the FDI stock is scaled by the GDPs of the respective countries, which is generally used to measure the extent of the foreign investment penetration in the host economy, smaller economies gain more weight. As of 2017, the inward FDI stock now accounts for 30% of GDP of Russia, while countries with smaller size of economy, namely Georgia (115%) and Kyrgyzstan (77%) take a lead. Kazakhstan, on the other hand, sustains its position for any indicator considered with the FDI stock of 90% of its GDP.

4.3. FDI inflows to Eastern European countries of the European Union region

Compared to the abovementioned two transition regions, the 11 Eastern European countries (EEC), which are already members of the European Union (EU), experienced a smoother transition to the market economy, catching attention of MNCs right from the beginning of their economic transformation from 1990s. Having a large market, cheap but a skilled labor force as well as being neighbored by more "advanced" European countries with high purchasing power, made the region a relatively favorable destination for the FDI flows for MNCs (see Figure 15). As of 1999, 72% of the

total FDI stock was accommodated in EEC, while the region constitutes only 25% of the total population in the three transition regions (World Bank).

Figure 15: FDI stock in transition regions, 1990 **FDI stock in EEC countries, 1990**

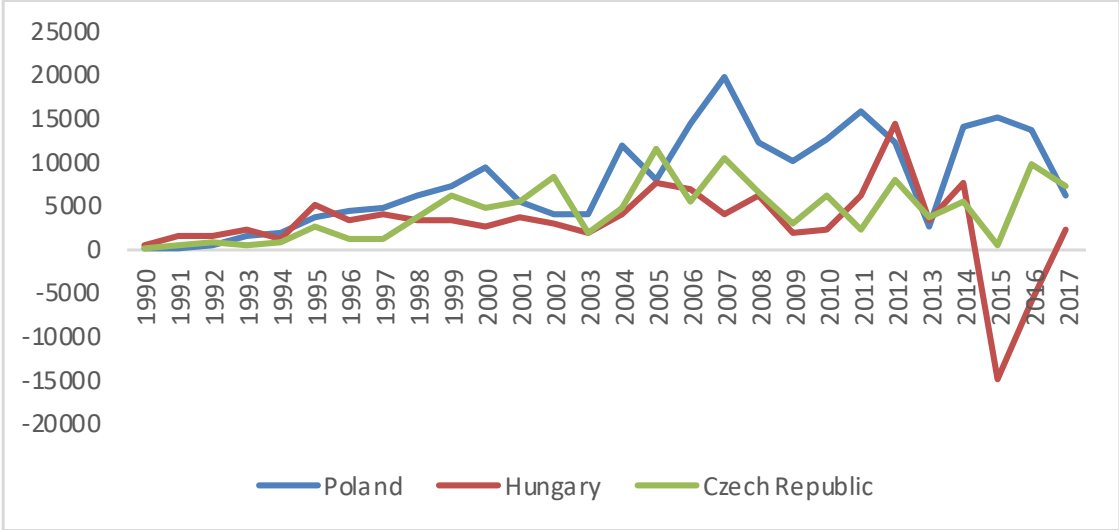


Source: Author's calculations based on UNCTAD data (UNCTADstat).

Eastward extension of the EU starting from 2004, augmented the regional stability and security, which boosted the inflows even further (Igosina, V., 2015). The privatization process of the financial sector and a following development of trade, transportation and communication sectors became the key destinations of the FDIs (Jirasavetakul, L. F., Rahman, J., 2018). It gave an opportunity for the counties in the region to get engaged in a higher value added production compared to the other transition regions. Regarding the intra-regional allocation, 75% of the overall FDI stock in 1999 was concentrated in the three largest economies of the region: Poland (31%), Hungary (26%), and Czech Republic (18%) (see Figure 15).

Poland is the forerunner in enticing the FDI inflows in the region and it promotes these investments into the high-tech sector (UNCTAD, 2014). An increasing inward FDI trend from 1990s, tailed off by 40% in 2001, yet it started to grow again and reached the record-high level of about US $ 20 billion in 2007. The inflows shrunk again in 2013 and after some years of recovery tend to have a declining trend, similar to the FDI performance of both Czech Republic and Hungary (see Figure 16).

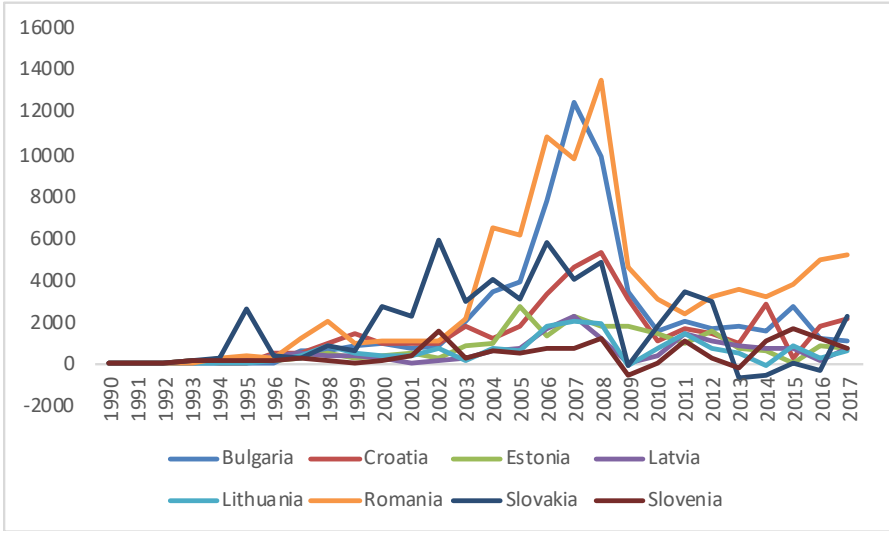
Figure 16: Annual inward FDI flows to Poland, Hungary, Czech Republic, 1990-2017, (million USD)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

Czech Republic, however, witnessed relatively stable FDI inflow dynamics compared to Poland and especially to Hungary, which is on a downward trend since 2012 but recovering for last two years. Having a restrained FDI in 2009, the flows boomed starting 2011 with the highest growth in Slovenia, Slovakia and Latvia, while Czech Republic and Estonia registered a downward trend. Nevertheless, none of the countries in the region managed to regain their pre 2008 crisis records as of 2017 (see Figure 16 and Figure 17).

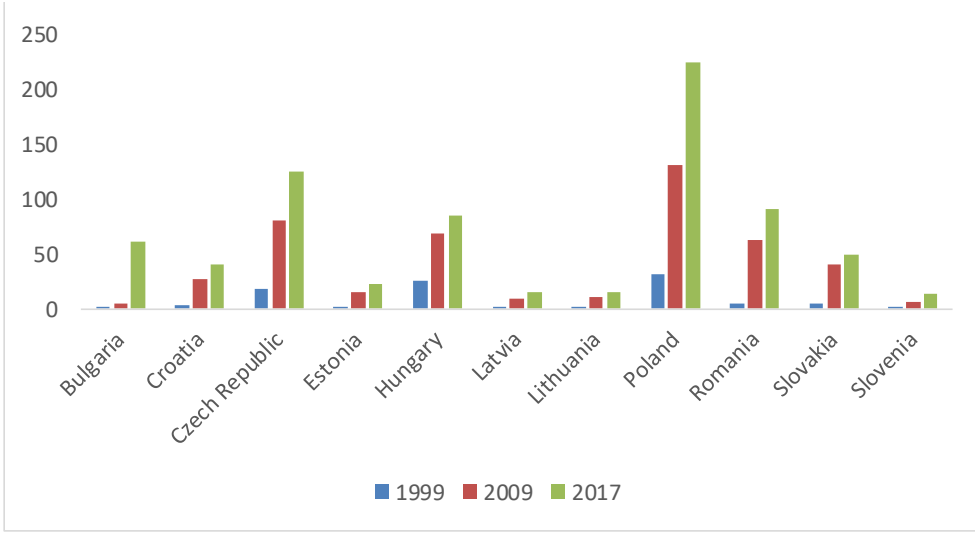
Figure 17: Annual inward FDI flows into EEC, excluding Poland, Hungary and Czech Republic, 1990-2017, (million USD)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

Specifically, Romania and Croatia reached about 40% of their record-high levels of FDI annual flows as of 2017, while Bulgaria did not recover even 10% of it. Nevertheless, the upward FDI inflows trend of 2012 seems hardly to be explained by the economic determinants of FDI, as economic growth of the region shrunk during that period, for example in Czech Republic and Hungary, which had the highest inward FDI growth in 2012, their GDPs decreased by 1.3% and 1.7%, respectively in the same period (Hunya, G., 2015).

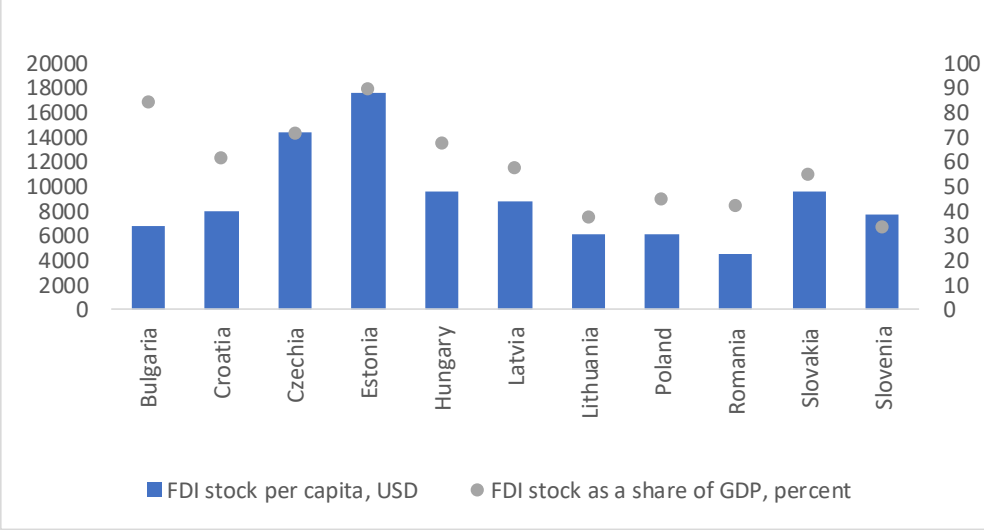
Figure 18: FDI stock in EEC countries, 1999, 2009, 2017 (billion USD)



Source: Author's calculations based on UNCTAD data (UNCTADstat).

Regarding the FDI stock and FDI stock per capita distribution (see Figure 18 and Figure 19), the composition of the leading trio changes. Specifically, Estonia, which has the smallest population among these countries, becomes the forerunner. It is closely followed by Czech Republic and Hungary, which share the third and fourth positions in terms of their populations, respectively. Interestingly, Poland, being the most populous country in the region, loses its prior leading position when the FDI stock per capita is considered. Generally, scaled to their respective GDPs (see Figure 19), the ranking of the countries follows the pattern of the FDI per capita ranking apart from Bulgaria and to a lesser extent Croatia, that have gained more weight with the FDI stock of 84% and 60% of their GDPs, respectively.

Figure 19: FDI stock per capita (USD) and FDI stock as a share of GDP (percent) in EEC, 2017



Source: Author's calculations based on UNCTAD data (UNCTADstat).

4.4. Concluding remarks

The demise of the Soviet Union launched a process of transformation and the series of reforms in the post-communist world. These countries in transition literally rose from ashes and embarked on a journey of opening their economies in the hope of being integrated into the global markets. Even though the starting point was comparatively the same for these twenty-eight countries, because of sharing history under the Soviet rule, however, as time passed by, they followed different development paths. Consequently, they crafted individual post-soviet experience and diverged. Such heterogeneity makes the comparative analysis of these countries even more enriching and essential in understanding how the different interventions and application of policies can lead to the completely diverse results in attracting the inward FDI flows. As the Soviet legacy, all these countries in transition have already been industrialized and they shared common characteristics of highly educated, yet a relatively cheap labor force.

Abundant natural resources made the CIS countries predominantly resource seeking destination for investors, thus FDI inflows to the region were mainly attracted by resource rich countries and reflected volatility in oil and the related sectors. At the same time, the FDI motivation to SEE and EEC was chiefly driven by the market and efficiency seeking intentions resulting in much of the FDI flows being accommodated in larger economies of these regions. EEC and to a lesser extent SEE attract FDIs to services sector and manage to move to a more technology-intensive production compared to the countries in CIS.

CHAPTER V. EMPIRICAL ANALYSIS

The following chapter provides a rationale behind the selected variables and the empirical model used in this study in order to investigate the determinants of the inward FDI flows into 28 transition countries after the collapse of the Soviet Union for the time span of 1994-2014. Starting from a relatively same point, these countries adopted different development paths and diverged. In this regard, with the aim to better capture the specificities of the overall macroeconomic and the institutional environment of these regions and to provide results for each of them separately, these transition countries were clustered into three groups on the basis of their regional position, namely Eastern European countries (EEC), which are members of the European Union, Southeast European countries (SEE) and Commonwealth of Independent States (CIS) countries.

5.1. Variables employed and data sources

Taking into account the existing theoretical grounding proposed by Dunning (1988), as well as the empirical studies discussed in the third chapter of this study, and the availability of data for the period of time under investigation, the following variables were chosen to be included in the sets of the model specifications. In particular, the dependent variable is the log of net inflow of the foreign direct investments per capita in the host country, which is obtained from UNCTAD database.

As for the independent variables, GDP per capita in purchasing power parity (PPP) is used as a proxy for the market size of the host economy and it is sourced from the World Bank World Development Indicators Database (WB WDI). The countries with larger market size, in general, attract more FDI inflows. Thus, this variable is expected to be significant and have a positive sign.

GDP growth rate is another market seeking variable. In general, the higher the growth rate of the host economy, the more inward FDI flows the country manages to attract. The data on an annual percentage change of the GDP in host countries is provided by the WB WDI. Likewise, it is expected to be positively linked to the higher inward FDI flows.

Trade openness is considered to be an important determinant of the inward FDI, which attracts market and efficiency seeking investors. The trade openness of the host country is measured as a sum of its imports and exports divided by the GDP and derived from the WB WDI. Countries, which are better integrated into the world economy tend to attract more investments. Thus, it is expected to have a positive and statistically significant relationship to the inward FDI flows.

Production costs are essential for efficiency seeking FDI, which allow the foreign investing company to take an advantage from relatively cheaper prices in the host country. Therefore, as the labor costs constitute a considerable portion of the production costs, they are expected to have a negative relation to the FDI inflows. The log of the average monthly wages is chosen as a measure of labor costs and it is sourced from the Statistical database of the United Nations Economic Commission for Europe (UNECE).

The quality of the labor force, proxy of which is the education level of population in the host economy is another vital determinant of the inward FDI. Normally, the sign of the relationship between the inward FDI and the education level of the labor force depends on the type of production, which specifies whether an educated or a less educated labor force is required for the operation of the enterprise. It is a tradeoff between the quality of the labor and the possibility to cut the production costs. However, transition countries are characterized with a highly educated but a relatively cheap labor force as a heritage of the Soviet Union. In this vein, the gross enrollment ratio in tertiary education, sourced from the United Nations Educational, Scientific and Cultural Organization's (UNESCO) Institute for Statistics (UIS), is used to measure the human capital in host country and it is expected to be positively linked to the investment inflows.

To take into account the resource seeking FDI motivation of MNCs, which are particularly relevant to the countries in CIS as discussed in Chapter 4, oil rents as a percentage of GDP is reported from WB WDI and it is added to the list of independent variables. It is expected to have a significant and positive relationship to the inward FDI, especially for the CIS region.

As the study covers the countries in transition, along with the conventional FDI macroeconomic determinants mentioned above, those specifically relevant for the context of the transition countries were incorporated into the model specifications. Namely, six transition indicators provided by the European Bank for Reconstruction and Development (EBRD), which are: large scale privatization, small scale privatization, governance and enterprise restructuring, price liberalization, trade and foreign exchange system, competition policy. The scores, ranging from 1 to 4+, provided to each country by the EBRD are used to follow the progress in transition for the period of 1994 to 2014. Higher scores reflect better institutional environment in the country.

To provide more robust results as well as to have a benchmark to compare and address the possible methodological drawbacks of indicators provided by a single institution, we also employ the institutional indicators provided by the Heritage Foundation (HF) in the other set of the model specifications for the period of 1995-2014. The HF indicators incorporated into the model are as follows:

- Freedom from corruption
- Business freedom
- Financial freedom
- Investment freedom
- Tax burden

In addition, the overall Index of Economic Freedom by the HF was employed separately in other specification of the model. The index is composed of 12 quantitative and qualitative sub indicators, which are clustered among 4 main dimensions, which are: rule of law, governance size, regulatory efficiency and open markets. The overall score for each country is computed by averaging the scores

of the 12 indicators using equal weighting for each of them. It is expected that better transition experience and structural reforms captured by the higher-ranking position of the country specific transition indicators should be positively linked to the FDI inflows.

All the variables used in the model specifications, the data sources and the expected variable signs are reported in Table 1.

Table 1: Variables used and their expected signs		
Name of the variable	**Data Source**	**Expected sign**
Dependent variable		
Net inflow of FDI per capita	UNCTAD	
Macroeconomic variables		
GDP per capita (PPP)	WB WDI	+
GDP growth rate	WB WDI	+
Trade openness	WB WDI	+
Oil rents as a percentage of GDP	WB WDI	+
Average monthly wages	UNECE	-
Gross enrollment ratio in tertiary education	UNESCO UIS	+
EBRD transition specific institutional variables		
Large-scale privatization	EBRD	+
Small-scale privatization	EBRD	+
Governance and enterprise restructuring	EBRD	+
Price liberalization	EBRD	+
Trade and foreign exchange system	EBRD	+
Competition policy	EBRD	+
Heritage Foundation institutional indicators		
Freedom from corruption	HF	+
Business freedom	HF	+
Financial freedom	HF	+
Investment freedom	HF	+
Tax burden	HF	-
Index of Economic Freedom	HF	+

5.2. Methodology

For the empirical analysis, a panel data is being estimated by employing the ordinary least squares (OLS) method using a secondary annual data. The combination of inter-individual differences and intra-individual dynamics of the panel data grants it some advantages over the time-series or the cross-sectional data. In particular, having time series for each cross-sectional unit expands the number of the available observations and leads to better estimates of the model parameters (Hsiao C., 2006). In

addition, panel data may allow to address the problem of missing or unobserved variables, which could lead to biased estimates (Hsiao C., 2006) (Asteriou, D., Hall, S., 2011). There are three methods of linear panel data estimation: common constant method, fixed and random effects methods.

For this analysis, we employed the fixed effects estimator as the study covers particular grouping of the countries and, in the case of the fixed effects estimator, the model applies different constants for each of them addressing the heterogeneity between the countries. In addition, the choice of the fixed effects estimator was augmented by the results of the Hausmann specification test, which, in fact, compares the differences between the estimates of fixes effects and random effects estimators. Based on the results of the test, the null hypothesis of using random effects model, is rejected when the difference between the estimates appears to be significant. In that case, the fixed effects estimator suits data better (Asteriou, D., Hall, S., 2011). We obtained significant p-values very close to zero for the sample incorporating all the countries, CIS countries and the CEE region. Although for the SEE region the p-values were above 0.05, but we decided to use the fixed effects estimator for the countries in SEE as the fixed effects estimator is always consistent even if the estimators may be correlated with the individual characteristics (Asteriou, D., Hall, S., 2011). Therefore, we proceed the interpretation of results for the model specifications using the fixed effects estimator.

As the OLS method is very sensitive to outliers, to take into account the non-normality of the data, we used natural logarithms of the skewed variables in the model, where appropriate, namely the inwards FDI flows per capita, GDP per capita as well as the average monthly wages. Moreover, considering that the foreign investors generally need time to respond to policy changes in the country, the potential endogeneity problem was addressed by lagging the relevant variables of the macroeconomic environment and the transition related institutional setup. In addition, in line with the literature reviewed in Chapter 3, the first differences of the transition specific institutional variables were taken to account for the autocorrelation issues as suggested by Donu and Janíčko (2015). As for the heteroskedasticity, which was attested by the results of the Breusch-Pagan test, all the specifications of the model incorporated the corrected standard errors. Eventually, the model to be estimated has the following form:

$$LFDI\_cap_{it} = \alpha + \beta_1 GDP_{it} + \beta_2 GDPGR_{it} + \beta_3 OPEN_{it} + \beta_4 LWAGE_{it} + \beta_5 EDUC_{it} + \beta_6 OIL_{it} + \beta_7 INSTIT_{it} + \varepsilon_{it}$$

(equation 1)

Where:

α is the entity specific slope coefficient

β is the coefficient for the independent variables

i denotes to the host transition country of the inward FDI flows

t is the year when the FDI inflows were received (ranging from 1994-2014)

$LFDI\_cap_{it}$ is the log of the net inflows of FDI per capita in the host *i* country for the *t* year

GDP_{it} is the GDP per capita in purchasing power parity (PPP) terms in the host *i* country at the *t* year

$GDPGR_{it}$ stands for the annual percentage change in the GDP value of the FDI accommodating *i* country for the *t* year

$OPEN_{it}$ is the trade openness in the host *i* country in the *t* year and it is computed as a sum of the imports and exports of the country divided by its GDP

$LWAGE_{it}$ denotes for the log of the average monthly wages in the host *i* country for the *t* year

$EDUC_{it}$ is the proxy for the labor quality and it is the gross enrollment ration of the population in the *i* host country in tertiary education for the *t* year

OIL_{it} is the variable for the oil rents as a percentage of the value of GDP in the *i* country in the year of *t*

$INSTIT_{it}$ denotes two sets of the institutional indicators in the host *i* country for the *t* year. The indicators are singly added to the model specifications.

ε is the error term

Thus, the model expresses the inward FDI flows as a function of the main macroeconomic environment in the country, including variables such as the GDP, GDP growth rate, trade openness, labor costs, level of education, quality of labor force and the oil rents received by the host country. In addition, the model incorporates two alternate sets of institutional indicators to account for the institutional framework and the progress in transition of the FDI host country.

CHAPTER VI. RESULTS AND INTERPRETATION

6.1. Results for model specifications using EBRD transition specific indicators

The first set of the specifications of the model incorporates the macroeconomic variables and the transition specific EBRD variables, which appear to be highly correlated as it is indicated in Table 2. Therefore, six specifications of the regressions are employed and reported with a separate choice of institutional variable for each of them.

Table 2: Correlation matrix between EBRD transition specific institutional variables

	lrgpri~d	smpriv~d	govent~d	pricel~d	trade_~d	policy~d
lrgpriv_ebrd	**1.0000**					
smpriv_ebrd	**0.8044**	**1.0000**				
govent_ebrd	**0.8183**	**0.7753**	**1.0000**			
pricelib_e~d	**0.7504**	**0.7246**	**0.6730**	**1.0000**		
trade_ebrd	**0.7873**	**0.8091**	**0.7282**	**0.8606**	**1.0000**	
policy_ebrd	**0.7066**	**0.6523**	**0.8177**	**0.5563**	**0.5937**	**1.0000**

Source: Author's calculations in Stata.

In such a way, each specification includes only one institutional variable in order to address the collinearity between the independent transition specific variables.[3] The results related to the determinants of the inward FDI flows for each of the specified transition regions for the period 1994-2014 are presented in the sub chapters below.

6.1.1. Southeast European region

As it can be seen in Table 3.1, that the obtained results are mainly in line with the expected signs of the independent variables as it was stated in Table 1, Sub chapter 5.1. above. Nevertheless, some of the explanatory variables are not statistically significant for the SEE region.

Considering the macroeconomic variables, we find that the GDP per capita, which is the proxy for the market size of the host country, is a statistically significant determinant of the inward FDI flows and that it is positively associated with higher investment inflows into the SEE region.

[3] Descriptive statistics of variables as well as the correlation between the macroeconomic variables are presented in Annex II and Annex III, respectively.

Table 3.1: Determinants of inward FDI flows into SEE using EBRD indicators, 1994-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1see	m2see	m3see	m4see	m5see	m6see
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.govent_ebrd	1.358					
	(0.645)					
L.lgdp	4.064***	4.650**	4.855**	4.662**	4.343**	5.116**
	(0.843)	(1.282)	(1.146)	(1.363)	(1.114)	(1.353)
L.gdpgr	0.00744	0.00926	0.00604	0.00843	0.00460	0.00272
	(0.00991)	(0.0114)	(0.0169)	(0.0120)	(0.0122)	(0.0108)
L.educ	-0.00432	-0.0167	-0.0162	-0.0150	-0.00371	-0.0172
	(0.0276)	(0.0398)	(0.0366)	(0.0369)	(0.0364)	(0.0376)
L.lwage	-0.399***	-0.496**	-0.555***	-0.497*	-0.461***	-0.608**
	(0.0503)	(0.150)	(0.114)	(0.198)	(0.0736)	(0.169)
LD.open	0.00868*	0.00880	0.00799*	0.00806*	0.00930*	0.00891**
	(0.00326)	(0.00472)	(0.00288)	(0.00299)	(0.00400)	(0.00312)
L.oil	0.101	0.231	0.207	0.203	0.0296	0.172
	(0.364)	(0.513)	(0.496)	(0.466)	(0.478)	(0.495)
LD.pricelib_ebrd		-0.323				
		(0.956)				
LD.lrgpriv_ebrd			0.209			
			(0.689)			
LD.trade_ebrd				0.489		
				(0.400)		
LD.policy_ebrd					0.686	
					(0.714)	
LD.smpriv_ebrd						0.511
						(0.385)
Constant	-28.86**	-33.09**	-34.58**	-33.26**	-30.97**	-36.53**
	(6.525)	(9.448)	(8.640)	(10.02)	(8.455)	(10.05)
Observations	59	59	59	59	59	59
R-squared	0.739	0.718	0.718	0.720	0.735	0.722
Number of idc	5	5	5	5	5	5

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.
Source: Author's calculations in Stata.

Likewise, the variable of trade openness has a statistically significant positive link to the higher inward FDI flows. Higher costs of labor for MNCs in the host country, which is measured by the average monthly wages, shows a negative and a statistically significant association with the FDI inflows in accordance to our expectations. This, in line with the OLI paradigm, entails that the investment decisions made by MNCs seek to benefit from the relocation of their production by cutting the labor costs in the host countries of FDI. A higher share of a skilled labor force, captured by the gross

enrollment ratio in tertiary education, although being statistically insignificant, demonstrates a negative association with the FDI inflows indicating that for the SEE region MNCs prefer to employ a less skilled labor force. The obtained results for the macroeconomic variables, with respect to their signs and significance, remain the same across all the seven specifications of the model, when we singly add different institutional variables for each one of the specifications.

In regard to the expected sign of the institutional variables, only the transition specific EBRD indicator of the price liberalization does not meet our sign expectation. Although being insignificant, it is negatively linked to the inward FDI flows into the SEE region. We did not find any statistically significant institutional variables for any specification of the model for the SEE region, but we confirmed the findings of the available literature concerning the importance of the market size, trade openness and the labor costs in attracting the FDI inflows into this transition region.

In addition, these findings are in accordance to our conclusion that the MNCs base their investment decisions mainly on the market and efficiency seeking FDI intentions in the SEE region, which is derived from the analysis of the stocks and flows of inward FDI as presented in Chapter 4. The R-squared across all the seven specifications of the model is almost the same without any major changes and it suggests that the model is a relatively appropriate fit to the data describing around the 70% of the variability of the dependent variable.

6.1.2. Commonwealth of Independent States region

The findings for the CIS region are also mainly in conformity with respect to the expected signs of the macroeconomic independent variables (see Table 3.2). Market size of the host countries in this region seems to have a strong and a significant linkage to higher FDI inflows. On the contrary to the countries in the SEE region, a higher share of a skilled labor force, the proxy of which is the gross enrollment ratio in tertiary education, is a statistically significant determinant of the inward FDI flows and has a positive association with the investment inflows. This finding indicates that foreign investors are inclined to seek for a higher skilled and more qualified domestic labor force in the counties of the region. This reasoning is also supported by the results of the obtained wage coefficient estimate. Even though being statistically insignificant, the average monthly wages are positively linked with the FDI inflows. The macroeconomic variable that does not meet our sign expectation is the oil rent as a percentage of GDP, which has a statistically significant but surprisingly negative association to FDI inflows into the CIS countries. These findings, in relation to the macroeconomic explanatory variables, are robust across all the seven specifications of the model employed in our analysis.

Table 3.2: Determinants of inward FDI flows into CIS using EBRD indicators, 1994-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1cis	m2cis	m3cis	m4cis	m5cis	m6cis
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.govent_ebrd	-0.00842					
	(0.282)					
L.lgdp	1.749***	1.746***	1.725***	1.727***	1.773***	1.861***
	(0.386)	(0.382)	(0.374)	(0.388)	(0.399)	(0.381)
L.gdpgr	0.00826	0.00663	0.00839	0.00706	0.00809	0.00707
	(0.0157)	(0.0162)	(0.0140)	(0.0157)	(0.0144)	(0.0169)
L.educ	0.0355**	0.0352**	0.0351**	0.0357**	0.0349**	0.0344***
	(0.0116)	(0.0115)	(0.0115)	(0.0117)	(0.0120)	(0.0104)
L.lwage	0.106	0.102	0.0952	0.103	0.108	0.116
	(0.0692)	(0.0690)	(0.0669)	(0.0690)	(0.0651)	(0.0671)
LD.open	0.00585	0.00571	0.00590	0.00570	0.00587	0.00732
	(0.00549)	(0.00529)	(0.00520)	(0.00543)	(0.00540)	(0.00656)
L.oil	-0.125*	-0.124*	-0.128*	-0.124*	-0.123*	-0.117*
	(0.0610)	(0.0605)	(0.0614)	(0.0604)	(0.0623)	(0.0581)
LD.pricelib_ebrd		-0.141				
		(0.311)				
LD.lrgpriv_ebrd			-0.296			
			(0.184)			
LD.trade_ebrd				-0.0846		
				(0.200)		
LD.policy_ebrd					0.210	
					(0.310)	
LD.smpriv_ebrd						0.527
						(0.426)
Constant	-12.71***	-12.64***	-12.40***	-12.51***	-12.91***	-13.73***
	(2.933)	(2.881)	(2.828)	(2.968)	(3.008)	(2.943)
Observations	165	165	165	165	165	165
R-squared	0.551	0.552	0.554	0.552	0.552	0.556
Number of idc	11	11	11	11	11	11

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.

Source: Author's calculations in Stata.

With respect to the institutional variables, we fail to detect any statistically significant association with the FDI inflows in these transition countries. Moreover, the EBRD transition specific indicators of price liberalization, large-scale privatization, trade and foreign exchange system as well as governance and enterprise restructuring are negatively linked to the inward FDI flows into the CIS region. As in the case of the SEE region, we arrive at similar conclusion for the CIS countries that were presented previously in Chapter 4. Specifically, natural resources appear to be an important determinant

to attract the FDI inflows into these countries. Nevertheless, the sign of the association between the oil rents and the inward FDI flows does not meet our expectations. It is worth mentioning that looking at the R-squared value, all the seven specifications of the model describe approximately the 55% of the variability of the dependent variable.

6.1.3. Eastern European countries of the European Union region

Regarding the sign of the macroeconomic variables in the model, the estimation results suggest that all of them except for the average monthly wages and the oil rents as a share of GDP have the expected sign (see Table 3.3). Similar to the CIS region, both the education variable and the variable for the labor costs appear to show a positive association with the inward FDI flows, yet none of them is statistically significant in the EEC region. The findings suggest that from macroeconomic variables only the GDP growth rate of the host county is statistically significant and determines the inward FDI flows into the counties of the region. The obtained results do not change in any of the six model specifications, which employ the EBRD transition indicators separately.

The majority of the institutional variables, on the other hand, do not demonstrate the expected positive sign in the EEC region. In particular, price liberalization, large scale privatization, trade and foreign exchange system and small scale privatization. Only the indicator of small scale privatization has a statistically significant association with the FDI inflows. It should be mentioned, however, that the explanatory power of the model is very low. Compared to other two transition regions, the model describes only around 35% of the of the variability of the dependent variable as reported by the R-squared coefficient, which again demonstrated a similar score for each of the specifications. Therefore, the obtained results should be regarded and interpreted with a high level of caution.

Table 3.3: Determinants of inward FDI flows into EEC using EBRD indicators, 1994-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1eec	m2eec	m3eec	m4eec	m5eec	m6eec
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.govent_ebrd	0.0472					
	(0.509)					
L.lgdp	0.949	0.954	0.952	0.935	0.961	0.886
	(1.036)	(1.016)	(1.018)	(1.014)	(1.012)	(0.856)
L.gdpgr	0.0411**	0.0405**	0.0411**	0.0410**	0.0423**	0.0392**
	(0.0168)	(0.0165)	(0.0167)	(0.0172)	(0.0174)	(0.0154)
L.educ	0.00419	0.00407	0.00421	0.00425	0.00363	-9.78e-05
	(0.0127)	(0.0126)	(0.0128)	(0.0125)	(0.0123)	(0.0117)
L.lwage	0.391	0.381	0.378	0.389	0.408	0.407
	(0.279)	(0.247)	(0.271)	(0.265)	(0.265)	(0.262)
LD.open	0.00906	0.00923	0.00928	0.00905	0.00848	0.00884
	(0.00623)	(0.00608)	(0.00636)	(0.00611)	(0.00670)	(0.00590)
L.oil	-0.207	-0.219	-0.192	-0.211	-0.194	-0.189
	(0.176)	(0.160)	(0.189)	(0.192)	(0.189)	(0.158)
LD.pricelib_ebrd		-0.406				
		(0.864)				
LD.lrgpriv_ebrd			-0.127			
			(0.184)			
LD.trade_ebrd				-0.0910		
				(0.471)		
LD.policy_ebrd					0.195	
					(0.232)	
LD.smpriv_ebrd						-1.587**
						(0.685)
Constant	-6.416	-6.384	-6.369	-6.276	-6.636	-5.641
	(8.759)	(8.721)	(8.691)	(8.573)	(8.518)	(7.391)
Observations	162	162	162	162	162	162
R-squared	0.374	0.375	0.374	0.374	0.376	0.401
Number of idc	11	11	11	11	11	11

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.

Source: Author's calculations in Stata.

The results of the empirical assessment indicated above revealed that the overall macroeconomic stability is positively associated with higher inward FDI flows explaining the variation of those flows among the countries in all the three transition regions for the period from 1994 to 2014, while the institutional framework of those countries seems to have a less influence in attracting the FDI inflows. Nevertheless, it is important to emphasize that it cannot be assumed that the institutional variables do not play any role in stimulating the FDI inflows into the host countries in transition.

It is possible that the available information about the EBRD transition specific institutional variables might be incorporated into the macroeconomic variables. If this is the case, then the macroeconomic variables might mask the influence of the transition specific institutional determinants on the inward FDI flows. As a result, the model specifications might not detect their statistically significant effect. In order to check it, in line with the procedure applied by Donu (2012), we estimated the effect of these institutional variables on the macroeconomic ones for all observations. Each of the macroeconomic variables was regressed on the institutional EBRD indicators. Afterwards, those institutional variables that turned not to be statistically significant were taken out from the specifications of the model. In the end, only the institutional variables, which found to have a significant association to the macroeconomic variables were kept. The results are presented in Table 3.4. below[4].

Table 3.4: The effect of the EBRD indicators on the macroeconomic variables

Variables	Constant	Pricelib	Lrgpriv	Smpriv	R-aquared
LGDP	9.171***	-0.182***	-0.208***	-0.394**	0.136
	(0.00823)	(0.0501)	(0.0536)	(0.153)	
EDUC	46.24***	-4.496**	-9.903***	-13.46**	0.091
	(0.458)	(1.9)	(3.336)	(5.325)	
LWAGE	5.713***	-0.722***	-0.652***	-1.348***	0.123
	(0.014)	(0.108)	(0.192)	(0.181)	
OPEN	1.831***			-14.29*	0.036
	(0.41)			(7.737)	

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Source: Authors calculations in Stata

The obtained results suggest that the EBRD indicators of price liberalization, large scale privatization and small scale privatization report the most significant effects across the macroeconomic variables. Yet, contrary to what was expected all these indicators are strongly and negatively associated with the macroeconomic variables. It was believed that due to the privatization process in the host economies, the foreign investors have an opportunity to take an advantage from the beneficial policies of the host countries, such as the preferential taxation policy and the subsidies offered by the respective governments in the transition countries. This, in turn, may lead to stimulated inward FDI flows towards these countries. Yet, the obtained results imply that while making their investment decisions the MNCs might be distracted the most by the privatization process in the countries in transition. Nevertheless, the rationale behind this finding can be the fact that in many transition countries the transformation of their economies from the socialist to a market-oriented economic model was accompanied with the "seizure"

[4] The results for the macroeconomic variables of the GDP growth rate and the oil rents as a percentage of GDP are not reported, as none of the EBRD transition specific variables was found to have a statistically significant link with them.

of the state-owned enterprises by the local influential groups as well as the creation of the private sector by them. As a result, the private sector in these countries might be centralized in the hands of the few. Therefore, the MNCs might be discouraged by the low level of a credibility of these businesses while making their investment decisions. This finding is in line with the results attained by Garibaldi et al. (2002) and Azizov (2007), who suggested that the privatization process in the countries in transition (especially in the case of the CIS countries) were localized and driven by "gifts" and sales of the state-owned enterprises.

The institutional indicators of trade and foreign exchange system as well as the indicator of the competition policy do not have any significant relation with the macroeconomic variables. It should be noted that the institutional indicator of governance and enterprise restructuring, which is related to the corporate governance in the transition countries, incorporates also a condition of tight subsidy policies undertaken by the host county. Thus, the fact that this particular institutional indicator is not statistically significant is in line with the results obtained above. Specifically, the importance of privatization process and the channels (including subsidies) through which the direct investors may benefit from it.

Based on the attained results, it can be concluded that the assumption stating that the institutional framework in the countries in transition do play a significant role in attracting the FDI inflows into the host countries is confirmed. However, their effect on the inward FDI flows is indirect and can be observed mainly through the macroeconomic variables. In this vein, we can also add that the positive developments in the overall macroeconomic framework of the FDI host country go along with the economic transformation to the market-oriented economy in these countries.

Nevertheless, to enrich the analysis and have a benchmark for comparison to reach more robust results, the other set of model specifications employing alternate institutional variables provided by the Heritage Foundation are observed. The results are presented below.

6.2. Results for model specifications using Heritage Foundation institutional indicators

The second set of the specifications of the model incorporates the overall framework of the first set of specifications. In particular, it employs the same macroeconomic variables but uses alternate institutional indicators sourced from the Heritage Foundation (HF) in order to provide more robust results and address the possible methodological drawbacks of indicators compiled by a single institution. Similar to the EBRD transition specific indicators, the HF indicators are mostly highly correlated (see Table 4). As a result, these variables are included one by resulting in 6 model specifications.

Table 4: Correlation matrix between Heritage Foundation institutional variables

	corrup~t	busfre~t	invest~t	finfre~t	taxbrd~t	overal~t
corrupt_he~t	1.0000					
busfree_he~t	0.5209	1.0000				
investfree~t	0.6347	0.6535	1.0000			
finfree_he~t	0.6245	0.5296	0.7292	1.0000		
taxbrd_herit	-0.1946	0.0086	-0.0958	-0.0207	1.0000	
overall_he~t	0.6506	0.7250	0.7590	0.7927	0.3005	1.0000

Source: Author's calculations in Stata

The OLS estimates of the FDI inflow determinants for the three transition regions for the period 1994-2014 are presented below.

6.2.1. Southeast European region

The findings of the second set of the model specifications in the SEE region indicate similar performance of macroeconomic variables to attract FDI flows compared to the expected results and the findings obtained employing EBRD indicators (see Table 5.1).

Likewise, GDP per capita and trade openness have a positive statistically significant association with inward FDI flows, while average monthly wages are statistically significant and negatively linked to FDI inflows. The differences arise in regard to the sign of the GDP growth rate and oil rents coefficients, which are, even though insignificant, both negatively related to investment inflows.

With respect to the institutional variables, lower level of corruption seems to be an important determinant of inward FDI. Interestingly, all the other institutional variables (except for the business freedom indicator) are statistically insignificant and negatively associated to investment flows into the

SEE region. These results, as well as the R-squared coefficients, are maintained through all the specifications of the model.

Table 5.1. Determinants of inward FDI flows into SEE using Heritage Foundation indicators, 1995-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1seeh	m2seeh	m3seeh	m4seeh	m5seeh	m6seeh
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.corrupt_herit	-0.0105**					
	(0.00352)					
L.lgdp	4.635***	4.616**	4.564***	5.104***	4.711***	4.615***
	(0.986)	(1.190)	(0.874)	(1.064)	(0.849)	(0.896)
L.gdpgr	-0.0152	-0.00874	-0.0162	-0.0131	-0.0156	-0.0136
	(0.0109)	(0.00745)	(0.0152)	(0.0132)	(0.0110)	(0.0115)
L.educ	0.00227	-0.00287	0.00147	-0.00391	0.00143	0.00140
	(0.0331)	(0.0327)	(0.0318)	(0.0347)	(0.0319)	(0.0317)
L.lwage	-0.518***	-0.520**	-0.491***	-0.645***	-0.553***	-0.521**
	(0.0830)	(0.141)	(0.0766)	(0.111)	(0.0638)	(0.118)
LD.open	0.0188**	0.0154**	0.0191**	0.0161**	0.0181**	0.0178**
	(0.00443)	(0.00541)	(0.00476)	(0.00398)	(0.00468)	(0.00479)
L.oil	-0.148	-0.0551	-0.126	-0.0851	-0.131	-0.115
	(0.451)	(0.445)	(0.455)	(0.472)	(0.445)	(0.451)
LD.busfree_herit		0.0135				
		(0.00838)				
LD.investfree_herit			-0.0107			
			(0.0111)			
LD.finfree_herit				-0.00832		
				(0.00573)		
LD.taxbrd_herit					-0.0108	
					(0.00590)	
LD.overall_herit						-0.00778
						(0.0112)
Constant	-33.09**	-32.83**	-32.60***	-36.33**	-33.54***	-32.89***
	(7.562)	(9.099)	(6.761)	(7.988)	(6.596)	(6.977)
Observations	52	52	52	52	52	52
R-squared	0.752	0.754	0.752	0.753	0.756	0.750
Number of idc	5	5	5	5	5	5

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.

Source: Author's calculations in Stata.

6.2.2. Commonwealth of Independent States region

The second set of the model specifications result in almost identical findings for the macroeconomic variables in the CIS region compared to the ones identified using the first set of specifications. As reported in Table 5.2, the GDP per capita and the gross enrollment ration in tertiary education are statistically significant and positively associated to investment flows into the CIS region, which supports the assumption that foreign investors look for more educated and skilled labor force in the region.

Table 5.2. Determinants of inward FDI flows into CIS using Heritage Foundation indicators, 1995-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1cish	m2cish	m3cish	m4cish	m5cish	m6cish
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.corrupt_herit	-0.0147					
	(0.0134)					
L.lgdp	2.060***	2.014***	2.044***	2.057***	2.061***	2.066***
	(0.364)	(0.380)	(0.383)	(0.382)	(0.388)	(0.379)
L.gdpgr	-0.000608	-9.49e-05	0.00205	0.00229	0.00247	0.00268
	(0.0183)	(0.0193)	(0.0186)	(0.0182)	(0.0184)	(0.0187)
L.educ	0.0273**	0.0270**	0.0287**	0.0282**	0.0286**	0.0286**
	(0.0104)	(0.00892)	(0.0101)	(0.0103)	(0.0100)	(0.0100)
L.lwage	0.100	0.103	0.100	0.103	0.105	0.106
	(0.0607)	(0.0642)	(0.0636)	(0.0640)	(0.0643)	(0.0683)
LD.open	0.00992	0.00951	0.00885	0.00898	0.00864	0.00853
	(0.00715)	(0.00768)	(0.00751)	(0.00746)	(0.00727)	(0.00729)
L.oil	-0.118*	-0.116*	-0.121*	-0.121*	-0.122*	-0.122*
	(0.0635)	(0.0611)	(0.0641)	(0.0646)	(0.0630)	(0.0636)
LD.busfree_herit		0.0164				
		(0.0112)				
LD.investfree_herit			-0.00162			
			(0.00423)			
LD.finfree_herit				0.00514		
				(0.00475)		
LD.taxbrd_herit					0.00835	
					(0.00875)	
LD.overall_herit						0.0121
						(0.0183)
Constant	-15.02***	-14.66***	-14.96***	-15.07***	-15.13***	-15.19***
	(2.904)	(3.028)	(3.050)	(3.042)	(3.085)	(3.044)
Observations	154	154	154	154	154	154
R-squared	0.545	0.546	0.541	0.542	0.542	0.541
Number of idc	11	11	11	11	11	11

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.

Source: Author's calculations in Stata.

The coefficient of the oil rents is in conformity with the finding of the specifications employing the EBRD indicators, and being negative, it is against our sign expectation of the coefficient estimate.

Although all the HF institutional variables have the expected sign of their respective coefficient estimates (except for investment freedom indicator, which is negatively associated to FDI inflows), none of them appear to be statistically significant in the second set of the model specifications. The R-squared coefficients are similar through all the specifications and they are in line with the ones observed for the first set of specifications.

6.2.3. Eastern European countries of the European Union region

For the EEC region, the obtained results are in accordance to the findings of the first set of specifications (see Table 5.3).

As in the previous case, the GDP growth rate remains an important determinant to attract inward FDI flows into the region. In addition, the coefficient estimates of the oil rents which is negative and does not meet our sign expectation, also becomes statistically significant in some specifications of the model. As in the CIS region, this finding suggests that the countries, which are less endowed with natural resources tended to attract more FDI inflows for the period of 1994-2014.

In relation to the institutional variables, the level of corruption, as anticipated, has a strong and negative relation to inward investment flows, while the model did not find statistically significant results for the remaining institutional variables. It is important to highlight that as in the case of the first set of the specifications for the EEC region, these model specifications report a very low level of the explanatory power of the model with only around 34% value of the R-squared coefficient, which is consistent among the set of specifications.

Table 5.3: Determinants of inward FDI flows into EEC using Heritage Foundation indicators, 1995-2014

Dependent variable: Net inflow of foreign direct investments per capita

	(1)	(2)	(3)	(4)	(5)	(6)
	m1eech	m2eech	m3eech	m4eech	m5eech	m6eech
VARIABLES	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap	lfdi_cap
LD.corrupt_herit	-0.0138***					
	(0.00297)					
L.lgdp	1.426	1.406	1.471	1.443	1.399	1.450
	(0.976)	(0.997)	(1.000)	(1.012)	(0.988)	(1.001)
L.gdpgr	0.0437**	0.0431**	0.0432**	0.0426**	0.0432**	0.0426**
	(0.0182)	(0.0183)	(0.0181)	(0.0182)	(0.0183)	(0.0180)
L.educ	-0.00573	-0.00439	-0.00390	-0.00441	-0.00439	-0.00373
	(0.0114)	(0.0103)	(0.0109)	(0.0109)	(0.0109)	(0.0116)
L.lwage	0.320	0.286	0.228	0.281	0.290	0.256
	(0.286)	(0.291)	(0.317)	(0.295)	(0.284)	(0.327)
LD.open	0.00798	0.00828	0.00747	0.00822	0.00826	0.00802
	(0.00552)	(0.00545)	(0.00537)	(0.00556)	(0.00556)	(0.00559)
L.oil	-0.240**	-0.194*	-0.157	-0.186	-0.196**	-0.172
	(0.0880)	(0.0900)	(0.0960)	(0.103)	(0.0852)	(0.111)
LD.busfree_herit		0.000352				
		(0.0177)				
LD.investfree_herit			0.00995			
			(0.00958)			
LD.finfree_herit				0.00488		
				(0.00847)		
LD.taxbrd_herit					0.000795	
					(0.00953)	
LD.overall_herit						0.0140
						(0.0325)
Constant	-10.10	-9.775	-10.08	-10.10	-9.728	-10.06
	(8.169)	(8.225)	(8.244)	(8.370)	(8.194)	(8.220)
Observations	162	162	162	162	162	162
R-squared	0.346	0.335	0.340	0.336	0.335	0.336
Number of idc	11	11	11	11	11	11

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: "LD" in front of the variable indicates the one year lag combined with the first difference of the variable, while "L" in front of the variable refers to one year lagged value of the specified variable.
Source: Author's calculations in Stata.

The findings indicated above, which are based on the model specifications using the institutional variables sourced from the Heritage Foundation, are in line with the results of the first set of the model specifications. Particularly, the results suggest that the overall macroeconomic stability in these transition countries tend to have a more important role in attracting the inward FDI flows compared to the institutional indicators in these countries. However, to see whether there is any indirect effect of the institutional setup of the country on the investment inflows, we perform the exercise employed with the previous set of specifications and estimate the effect of the HF institutional indicators on the macroeconomic variables for all observations (see Table 5.4).

Table 5.4: The effect of the HF indicators on the macroeconomic variables							
Variables	**Constant**	**Corrupt**	**Busfree**	**Investfree**	**Taxbrd**	**Overall Herit**	**R-squared**
GDP	9.242*** (0.00715)		0.0122*** (0.00227)	0.00541*** (0.00180)		-0.0369*** (0.00877)	0.120
GDPGR	4.663*** (0.00838)			-0.0587** (0.0241)			0.006
EDUC	47.89*** (0.24)		0.493*** (0.126)	0.197* (0.104)		-1.191*** (0.307)	0.078
WAGE	5.777*** (0.0196)	0.0131* (0.00692)	0.0210** (0.00975)	0.0182** (0.00721)		-0.105*** (0.0231)	0.067
OPEN	1.121*** (0.114)				0.222** (0.0909)		0.01

Source: Author's calculations in Stata.
Note: Robust standard errors in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

In this way, we reveal that the most significant institutional HF indicators across the macroeconomic variables are the indicators of business freedom, investment freedom and the index of economic freedom, which is a weighted average of the overall HF indicators. The indicators of the business freedom and investment freedom have the expected signs. As for the sign of the coefficient of the economic freedom, it is contrary to our expectation and appears to be negative. This finding might be connected to the results obtained above concerning the possibility of "internalized" privatization process in the transition countries and seizure of private sector by some local groups. In this way, even a higher level of the economic freedom may be accompanied with higher level of caution by the investors when making their FDI decisions.

CHAPTER VII. CONCLUSION

This thesis aimed at analyzing the inward FDI flows into the 28 countries in transition after the collapse of the Soviet system and identifying the main FDI determinants that stimulated these flows into the host economies. We looked at the topic from the analytical as well as the empirical perspectives.

In order to provide more informative results and fill in the gap in the available literature, these countries in transition were grouped according to their regional position, which resulted in identification of three transition groupings of countries: Southeast European countries (SEE), Commonwealth of Independent States (CIS) countries, including Georgia, and Eastern European countries (EEC), which are currently members of the EU.

Taking the OLI paradigm as the basis of the analysis, the stylized facts regarding the inward FDI flows and stocks for each of three specified groupings of the countries for the time span of 1990-2017 was discussed. Having inherited a relatively high level of industrialization as well as a cheap but a highly educated labor force, the expectations to become the most favorable FDI destination in the early stages of their transition process were not met. Each of the identified groups had a different transition experience, which also played a role in their ability to captivate and sustain the inward FDI flows. After a thorough analysis of the inward FDI flows and stocks for each of these three groups, it was concluded that the countries in CIS mainly attracted the investors interested in the natural resources of the hosting countries. On the other hand, the countries in SEE and EEC managed to accommodate FDI flows in a higher value-added production as they mainly attracted market and efficiency seeking FDI inflows.

Regarding the empirical part of this thesis it covered the three groupings of the countries for a time period of 1994-2014 using a panel fixed effects estimator. As the sample consisted of the transition countries, the overall macroeconomic determinants of the FDI were complemented with the transition specific EBRD institutional variables to account for the transition specific institutional architecture in these countries. Moreover, not to limit the empirical assessment to variables sourced from one institution, we also employed alternate set of model specifications with institutional variables of another organization. The obtained results from both sets of the model specifications resulted in similar findings. For all the three groupings of the transition countries the stable overall macroeconomic environment appeared to be an important determinant in attracting the FDI inflows. As for the institutional indicators, they mainly appeared to be insignificant in all the three transition regions. Yet, we found that the institutional variables have an indirect relation to the inward FDI flows, which is exerted through the macroeconomic environment in the FDI hosting country.

An interesting finding which was observed is the negative association of the privatization process of the hosting economies and the inward FDI flows. A possible explanation to these phenomena is suggested by Garibaldi et al. (2002) and Azizov (2007). They propose that the "localized" privatization led to a lower level of credibility of the investors towards the private sector of some of the

transition countries and distracted the FDI inflows. To address this issue, the governments of the respective countries may focus more on developing an accountability framework to enhance the credibility of the private as well as the public sectors of their countries for the foreign investors. An application of the e-governance, which standardizes also the functioning of the private sector may be a possible strategy to start with.

In the end, we concluded that based on the obtained results the macroeconomic environment appeared to be a more influential determinant in attracting the inward FDI flows compared to the institutional framework in these countries in transition. Moreover, our findings are in line with the recent results obtained from an investor survey conducted by the World Bank (2018). It is suggested that the investors tend to give more preference to the overall macroeconomic stability of the host developing countries rather than to the financial incentives provided by the host countries to attract more FDI inflows. Nevertheless, the governments of the developing countries tend to overestimate the impact of these policies and currently about 50% of the developing countries provide different types of preferential financial incentives, including a favorable taxation policies and subsidies to the foreign investors.

In this regard, the governments of the FDI hosting countries in transition should be extremely careful in providing favorable policies to the foreign investors. Although the potential benefits from the FDI inflows to the host countries are well-recognized but it should be noted that these gains are never guaranteed to the host economies, while the provision of sizeable subsidies and favorable taxation policies to attract more FDI inflows may lead to substantial cuts in the government budget. Considering that the overall macroeconomic environment of the FDI host country tends to be a more influential FDI determinant, it would have been a safer option to pay more attention to upgrading the macroeconomic situation in the country.

In addition, the governments of the hosting countries, instead of making some preferential policies for the investors, may try to "push" for some preconditions to be fulfilled by the investors in order to grant them the possibility of the investments in their respective countries. Such preconditions may include the employment of the fixed percentage of local labor force at different levels of the organizational hierarchy, including the managerial positions, or the number of trainings run by the international experts for the local employees in order to increase the likeliness of gaining FDI benefits for the host country. Yet, it should be emphasized that in order to attract rather to distract the inward FDI flows into the country, such an action should be taken as a collective decision of countries at regional level and not a decision of a one specific country.

At the same time, it is essential to mention about the limitations of the analysis and its implications. The lack or unavailability of data to cover all the countries in transition after the fall of the Soviet Union for a long time span partially influenced the choice of the variables employed in the model and the time period investigated in this thesis. For example, the literature reviews and the empirical studies revealed that the corporate tax rates coupled with the average monthly wages constitute the highest share of the

productions costs faced by the foreign direct investor and can be an essential FDI determinant. However, the unavailability of the panel data series of the corporate tax rates especially in the Central Asian countries in transition made it impossible to incorporate that variable into the model. Thus, we proceeded the analysis with using only the gross average monthly wages as the proxy for the production costs. As the focus of the thesis was to look at FDI determinants of the countries in transition after the fall of the Soviet Union, the rationale behind the choice of the specific time period under investigation was mainly guided by the availability of the data.

Although the dissolution of the Soviet Union took place in 1991, some period of time was required for the countries to declare their independence and have stable institutions with required statistical capacity to track their macroeconomic environment. 1994 was identified as a year from which all these countries in transition started to have consistent and available statistical data for the variables chosen in this study marking it as a starting period for the analysis of the inward FDI determinants. Moreover, as the focus of the analysis are the countries in transition, the EBRD transition specific institutional indicators, which tracked the transition developments at the county level, were chosen to be incorporated into the first set of the model specifications. However, those indicators are available until 2014. Therefore, this study looks at the FDI determinants in the transition countries for the period from 1994 to 2014. Another important point to mention is that clustering the countries in three transition regions resulted in having small number of cross-sections in the panel, specifically having only 5 countries in the SEE region, which hinders the scope of variation of the explanatory variables and the subsequent results. As a result, taking all the above-mentioned points into account, all the findings of this thesis should be taken and be interpreted with caution.

For the further research, it would be interesting to look at the analysis of the sectoral level determinants of the inward FDI flows into these countries in transition. The determinants of the FDI flows may vary depending on the sector where the enterprise operates. In this way, the identification of the main FDI determinants for each specific sector may lead to more concrete and targeted policy recommendations for the governments of the FDI host countries. In addition, the period under investigation could be split to see whether the process of privatization in these countries in transition has a varying influence throughout the time on the investment decisions of the MNC.

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ANNEXES

Annex I: Grouping of 28 transition countries based on their regional position		
SEE	**CIS**	**EEC**
Albania	Armenia	Bulgaria
Bosnia and Herzegovina	Azerbaijan	Croatia
Montenegro	Belarus	Czech Republic
North Macedonia	Kazakhstan	Estonia
Serbia	Kyrgyzstan	Hungary
	Russian Federation	Latvia
	Republic of Moldova	Lithuania
	Tajikistan	Poland
	Turkmenistan	Romania
	Ukraine	Slovakia
	Uzbekistan	Slovenia
	Georgia	

Annex II: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lfdi_cap	542	4.615115	1.579637	-0.0674857	7.804677
lgdp	578	9.143501	0.7934317	6.953782	10.34618
gdpgr	568	4.065819	7.031139	-22.93405	88.95766
open	571	96.49801	31.3132	8.0777	183.4055
educ	499	44.61206	20.40329	2.67	92.51175
oil	570	2.756157	6.587758	0	39.55802
wage	514	1291.809	8368.9	0.5	100486.2
lrgpriv_ebrd	581	2.930172	0.8745755	1	4
smpriv_ebrd	581	3.672788	0.7323391	1	4.33
govent_ebrd	581	2.295146	0.7143281	1	3.67
pricelib_e~d	581	3.906936	0.5598795	1	4.33
trade_ebrd	581	3.63821	1.002574	1	4.33
policy_ebrd	581	2.208373	0.720799	1	3.67
overall_he~t	503	57.22724	9.715845	29.4	78
corrupt_he~t	504	32.7373	14.42465	10	75.7
busfree_he~t	504	64.02956	13.36892	0	100
investfree~t	504	52.46032	20.98704	0	90
finfree_he~t	504	51.42917	20.72228	10	90.3
taxbrd_herit	504	76.62202	12.80124	37.3	98.4

Source: Author's calculations in Stata.

Annex III: Correlation matrix between macroeconomic variables

	gdp	gdpgr	educ	lwage	open	oil
gdp	1.0000					
gdpgr	-0.0799	1.0000				
educ	0.6140	-0.1070	1.0000			
lwage	0.7042	-0.0757	0.5226	1.0000		
open	0.2752	-0.0021	0.3408	0.1957	1.0000	
oil	-0.0320	0.1758	-0.1215	-0.1205	-0.1437	1.0000

Source: Author's calculations in Stata.