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***The Determinants of Foreign Direct Investment: A Regional
Analysis with Focus on Belarus***

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1. INTRODUCTION

The transition from socialism to capitalism in East European transition countries is both a political and economic process. Economic integration into the world economy is an extremely important aspect of economic transformation. In this regard FDI plays a crucial role, in terms of fostering accelerated growth, technical innovation and enterprise restructuring (Bevan and Estrin, 2000).

In this paper I offer a rigorous econometric model of the FDI process in economies from the former Eastern block. The analysis is based on a new constructed dataset containing information on FDI stocks in 16 economies over the period 2002-2006. I develop an empirical model depicting that FDI is determined by host market size, trade relationships, risk factors and human capital. The aim of the paper is to investigate which factors affect FDI stock in the region of interest and to analyse the implication for Belarus's attraction of FDI given the results. The motivation for writing this paper is that this topic is of great importance for many economies in transition. My choice to take Belarus as a reference country for my model analysis is due to the location of Belarus. The country is in close proximity to the actual boarder of the European Union, which could mean a new potential market for European investors. Another motivation behind my special interest in Belarus is that there has been little empirical research done on foreign direct investments in the country. Available reports are mostly done by governmental officials using unrealistically exaggerated data that are provided by the local statistic institutions and differ much from the international data available. In my work I am using recent reliable and accurate data from the recognized international sources.

In this paper, I compare and contrast current approaches in the literature, creating a set of FDI determinants that represent economic country characteristics, relationships with other countries, human capital and risk factors. For my model I choose the most recent data covering years 2002-2006 and compose a set of 16 countries that have geographical (neighbouring countries) and historical (former Soviet Union members) relations with Belarus. An OLS regression analysis provides evidence for the great importance and positive impact on FDI stock of GDP and access to European common market determinants, while corruption, education and trade openness appears to be statistically insignificant. These findings highlight the necessity of using research information to create an attractive investment climate in the country, as well as the importance of examining how substantively

some factors shape investor's choice.

The main contribution of my work is that I use the latest data and compose a new set of data using particular determinants and specific countries from the region. The limitation of my model is that the measure of physical capital stock is not included due to the complexity of obtaining accurate and reliable data for my sample countries.

The remainder of the paper is organized as follows. In the following section I will give an overview of previous research related to this paper, then I will outline the conceptual and theoretical framework. The empirical model and description of variables are presented in detail in the fourth section. The next section of the paper is dedicated to data discussion. In section 6, the regression is conducted and the results of the model are discussed. Section 7 concludes the paper. In this section I provide policy recommendations and outline questions for future research.

2. PREVIOUS RESEARCH

There has been a growing interest in the determinants of FDI in developing countries, as FDI is considered one of the most stable components of capital flows to developing countries and can also be a vehicle for technological progress through the use and dissemination of improved production techniques. Not surprisingly, thus, a number of authors have also studied determinants of FDI because FDI now takes up a very large share of the physical capital formation in developing countries, and as a consequence the FDI-promoting effect might be an important channel of their overall effect on growth and development (Benassy-Quere et al., 2005).

From this perspective, it is not at all surprising that a vast empirical literature has developed around the issue of determining the forces attracting FDI. Most of these studies have used cross-country or country-specific regressions to search for empirical linkages between FDI and a variety of economic variables. In his research Chakrabarti (2001) claims that the literature is not only extensive, but controversial as well. The lack of consensus over the conclusions reached by the wide range of empirical studies as to the relative importance and the direction of impact of the potential determinants of FDI can be explained, to some extent, in terms of the wide differences in perspectives, methodologies, sample-selection and

analytical tools. His contribution is that in his research paper Chakrabarti deeply analyses which coefficients of the explanatory variables studied in the existing cross-country studies on the determinants of FDI are “robust” and which ones are fragile to small changes in the conditioning information set.

Though there has been considerable theoretical framework on FDI there is no agreed model providing the basis for empirical work. Nevertheless, it would be useful to review the key determinants and factors of FDI based on the different theories in international investment. The literature indicates that the key factors determining FDI are host country market size, input costs (labour) and the risk level of investment, both in terms of economic and the political environment (Singh and Jun, 1995). Market size, which is typically measured by host economy GDP has, by far, been the single most widely accepted factor in past empirical studies and economic theory as a significant determinant of FDI flows. The market-size hypothesis suggests that a large market is necessary for the efficient utilization of resources and exploitation of economies of scale: As the market size grows to some critical value, FDI will start to increase thereafter (Scapellato and Mauer 1969). In the transition context, survey evidence suggests that most firms invested in search of new market opportunities (Lankes and Venables (1996)), which can also be related to absolute market size. Schneider and Frey (1985) have econometrically estimated four models explaining the flow of foreign direct investment in 80 less developed countries. He concludes that the higher the real GNP and the lower the balance of payments deficit is, the more foreign direct investment is attracted.

Research works by Swedenborg (1979), Dunning (1980) and Papanastassiou and Pearce (1990) have also found strong support for the market-size hypothesis. Sader (1993) in his cross-country regression, using data on 21 developing economies over the period 1988-1992, observed a strong correlation between FDI and market size. Billington (1999) has arrived to the conclusion that a larger market size is associated with a higher level of inward FDI. It is evident that the support for including GDP as a determinant of FDI is generally valid across a variety of countries, periods and specification of variables.

However, there is mixed evidence regarding the significance of trade openness in determining FDI. The maintained hypothesis is that given that most investment projects are directed towards the tradable sector, a country’s degree of openness to international trade should be a

relevant factor in the decision (Chakrabarti, 2001). Singh and Jun (1995) state that FDI and openness of the economy are positively related. This in part proxies the liberality of the trade regime in the host country, and in part the higher propensity for multinational firms to export. Kravis and Lipsey (1982) and Edwards (1990) also reported a strong positive effect of trade openness on FDI. While Schmitz and Bieri (1972) in their analysis of US exports to EEC observe a weak positive link between openness and FDI.

Bevan and Estrin (2000) examines the determinants for FDI inflows to CEE, including country risk, unit labour costs, market size and some additional factors with focus on the country candidates that were to join the EU-15. Analysing the effect of access to common market of the EU they suggest that countries excluded from the EU, typically because of poor progress in transition, will receive lower levels of FDI, which will further limit their relative transition process. The implications are an increasing concentration of FDI into the more successful transition economies, and increasing differentiation in per capita income within the region associated with inclusion or exclusion from the EU. They think that EU membership can be viewed as a determining element of the operating business environment, and this may directly influence the rate of FDI inflows. Baldwin et al (1997) also suggest that prospective EU membership could be an important independent determinant of FDI in transition economies. Cho (2003) in general concludes that with the creation of regional integration frameworks, access to the regional markets supersedes the impact of national market determinants on FDI.

As for the aspect of risks in the economy, Wei (1997, 2000) pointed out corruption as a significant impediment to inward FDI, primarily working through its effect on the risk premium. Habib and Zurawicki (2002) also provide support for the negative impact of corruption on FDI. Many researches concerning the effect of institutions on FDI (for example Benassy-Quere et al, 2005) generally agree that corruption has a negative impact on inward FDI.

For most of the transitional economies, a key resource is labour which is regarded as having relatively high levels of skills and training and a strong scientific base. Relating back to the literature about the effect of human capital on FDI attraction, Noorbakhsh et al (2001) in his empirical work states that human capital is a statistically significant and one of the most important determinants of FDI. By examining how human capital affects FDI and its

distribution Eicher and Kalaitzidakis (1997) also emphasize the necessity of local human capital to absorb FDI and technology that it carries.

In his research Cho (2003) has managed to generalize and extend the previous suggestion of determinants. He divided the variables he is using in the research into several groups: Economic conditions, host country policies and multinational enterprise strategies. Among them are all the variables that I think are of great importance: market size (represented by different determinants among which is GDP), competitiveness (represented by the quality of human and physical capital), macro-policies, trade (relationships with other markets), FDI policies and risk perception. However his results are in other ways different from mine. He concludes, that as a consequence of globalization and economic integration, one of the most important traditional FDI determinants, the size of national markets, has decreased in importance. At the same time, cost differences between locations, the ease of doing business and availability of skills have become more important.

It is obvious that there has been carried out a lot of research concerning factors affecting FDI. However the limitation of the existing literature mostly concerns the fact that there is a lack of recent research using “fresh” data. From this perspective, I contribute to the literature using the latest data covering the period from 2002 to 2006. I sum up the knowledge from the previous research concerning the most important determinants of FDI and construct a dataset based on the specific choice of the countries from the region.

3. BACKGROUND

Nowadays, virtually all countries are actively seeking to attract FDI, because of the expected favourable effect on income generation from capital inflows, advanced technology, management skills and market know-how. Moreover FDI usually represents a long-term commitment to the host country.

Analysis of FDI stock in Eastern Europe and former countries of Soviet block provides an excellent natural experiment for studying the forces behind international capital flows. Before the fall of communism former socialist countries attracted virtually no foreign investment due to the closed political regimes. Since Mikhail Gorbachev's economic reform efforts (“perestroika”) and Boris Yeltsin's aggressive policies toward encouraging privatization and

foreign investments, large numbers of investors have been considering investing in the former Soviet Union. The attractiveness of this market is premised on the assumption that the swift and dramatic ideological, political, and economic changes of the former Soviet republics demonstrate a clear and inevitable, though difficult, transition to a market economy (Randall and Coakley, 1998). After 1989, foreign capital began to flow into the region, but the initial inflows were minimal. With FDI expanding globally, the flows into Eastern Europe and former Soviet Union states skyrocketed, making this part of the world an important FDI host (Bandelj, 2002). UNCTAD World Investment Report 2007 states a significant leap in FDI in Eastern European and countries of the Commonwealth of Independent States (CIS) and considers this region to be the second fastest growing region regarding the percentage of FDI growth. Among top 5 inflow recipients in the region are Russia, Kazakhstan and Ukraine.

Even though 20 years ago countries included in my research faced similar economic investment conditions, nowadays FDI levels in countries of former Soviet block show great variation. To examine investment opportunities and potential returns investors analyse host country characteristics, such as market size, trade openness, access to other markets, risks, quality and cost of human capital. It is important to mention that the biggest share of investments into transition economies consists of investments made by multinational firms. They are strategic investors that develop long-term plans of conquering new markets of Eastern Europe and CIS. Foreign firms bring in essential experience of international management and marketing, modern technologies and equipment.

Market potential is commonly measured by the size and growth of GDP. Researches prove that the bigger the market size the more attractive is country for foreign firm investments. An important aspect of trade linkages between countries is the actual involvement in free trade agreements and customs unions. Third party countries may invest into such regions to avoid tariffs on exports, while the enhanced growth and trade from the economies of scale of integration provide a demand stimulant to FDI (Bevan and Estrin, 2000). In 2004 Poland, Latvia, Lithuania and Estonia joined the European Union and gained the access to common market that has triggered a large increase in foreign multinational firm activity in these countries. The other countries in my study are members of the Commonwealth of Independent States, CIS, and have signed number of documents concerning economic integration and

cooperation.¹ The most significant issue for the CIS is the establishment of a full-fledged free trade zone / economic union between the member states.

Another key factor for foreign investment is the development of human capital in the host country: Skill and education levels of the workforce (Bandelj, 2002). One of the advantages of transition economies in my region of interest is the availability of skilled (and in some countries such as Poland, Lithuania, Belarus and Russia - highly qualified) and relatively low-cost working force. The heritage of Soviet Union is a well developed and qualitative system of education.

Many of the countries presented in the sample have relatively stable political and economic conditions, which is why the most important factor of risk for an investor in those countries is corruption. As an inheritance of the past Soviet system many governmental institutions remain corrupt, which creates obstacles for investors in terms of uncertainty and extra costs.

Since 1991, the Republic of Belarus has been an independent state in Eastern Europe and has started to develop free-market relations. A top priority of the state economic policy of Belarus is the creation of a favorable investment climate to attract and use foreign direct investments effectively in restructuring the economy. A further improvement of the Belarusian economy depends on the development of its business relations with developed countries, on its integration into the world economic system. Currently, the republic requires sufficient capital investments to increase its export potential and technical know-how (especially in its manufacturing industry), to carry out market economy reforms and to restructure of entire economy. Therefore, today the republic needs large investments provided by foreign governmental institutions, multinational enterprises and private investment.

Belarus lies along the eastern boundary of the European Union and therefore it has the potential of becoming a base for foreign producers seeking to acquire new promising markets

¹ The Commonwealth of Independent States (CIS) is the international organization, or alliance, consisting of eleven former Soviet Republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine, and Uzbekistan. Turkmenistan discontinued permanent membership as of August 26, 2005, and is now an associate member.

of CIS countries. The country has a common customs area with Russia, which ensures free access of any potential investor into the large Russian market. Besides its favourable geographical location close to the European market, Belarus offers foreign producers a relatively highly skilled and, in comparison with Poland, Latvia, Lithuania, Estonia and Russia, inexpensive manpower. The educational level in Belarus is among the highest (before come only Estonia and Lithuania) in the region. It is at approximately the same level as Russia, Poland, Latvia and Kazakhstan while the lowest level of education in the region is reported by Moldova, Turkmenistan and Azerbaijan. In terms of corruption the situation in Belarus has worsened over the last 5 years and now the country is reported among the countries with the most corrupt governments in the region such as Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan. All its neighboring countries withstand corruption much better.

4. EMPIRICAL MODEL AND DESCRIPTION OF VARIABLES

As described in the description of the related previous research it is impossible to find a common pattern in choosing the variables determining the level of foreign direct investment in the host economy. Some scientists focus on macroeconomic determinants, some - on institutional analysis, some – on determinants of risks including political stability and legislative basis, some – on determinants representing costs. Several scientists as Chakrabarti (2001) and Bevan and Estrin (2000) divide different factors into groups and conduct cross-country regressions. In my model, I have picked determinants that each represents an important factor from a macro economic and trade perspective. I have chosen this approach taking into account the investor's way of rationalisation: The foreign company will allocate its money in a country with a relatively big market size, trade relationships with other countries, good quality of human and physical capital and low risk factor.

I would also have liked to include the variable to represent physical capital stock in my analysis but it was impossible to get compatible and reliable data for the countries that I have in my sample for several reasons: first of all, the countries have shifted from a Soviet way of calculating the stock to a more modern way with all the complications involved; secondly, there are different ways to estimate the stock and the individual country observations (in the cases when they are available) will therefore typically be available from different studies and sources and will not be comparable.

Taking into consideration the discussion above the regression equation explaining a country's foreign direct investment equals:

$$FDI = \beta_1(GDP) + \beta_2(trade\ openness) + \beta_3(corruption) + \beta_4(education) + \beta_5(access\ to\ ECM) + \varepsilon,$$

where *GDP* is host country's gross domestic product in current prices; *trade openness* is an indicator of how open to trade the economy is; *corruption* is a corruption perception index (capturing the investment risk); *education* is an education index; *access to ECM* is access to European common market, and ε , is the error component. In order to see if there are country- or year-specific explanations in the model I add 15 country dummies and 4 year dummies at the outset and test whether they should be included in the model using Wald tests. I use the Ordinary Least Squares (OLS) method to estimate the parameters of my multiple linear regression. The estimations were performed in STATA.

I have chosen *Inward FDI stock* to be the dependent variable in my model. Data represents stock in host economy, calculated in millions of US dollars and provided by UNCTAD. I have chosen to analyse particularly FDI stock instead of flow because I am interested in long-term investment levels and would like to investigate how much FDI have attracted in total the countries of interest over the years.

The annual *Corruption Perceptions Index* (CPI) from Transparency International, first released in 1995, is a standard measure of corruption at the international level. The CPI ranks 180 countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. I have chosen this index to represent the risk factor on FDI in my model and would expect a negative impact. I am using the inverse measure of corruption that decreases with increasing corruption.

Education index is one of the three indices on which the human development index is built. It measures a country's relative achievement in both adult literacy and the combined gross enrolment ratio for primary, secondary and tertiary schools. First an index for adult literacy and one for combined gross enrolment are calculated. Then these two indices are combined to create an education index, with two-thirds weight given to adult literacy and one-third weight to combined gross enrolment. Based on previous empirical results, a larger amount of human

capital is expected to attract more FDI.

The Gross Domestic Product (GDP) measured in million US Dollars is the way of measuring the size of country's economy. GDP is defined as the total market value of all final goods and services produced within a given country in a given period of time (usually a calendar year). It is also considered the sum of value added at every stage of production (the intermediate stages) of all final goods and services produced within a country in a given period of time, and it is given a money value. In consideration of previous research results, the FDI level is expected to be positively affected by the domestic market size.

Trade openness is calculated as a ratio of the sum of exports and imports to GDP and is an overall measure of how open the country is to trade. I would assume that in an FDI sense it is an important determinant since multinational firms are often more interested in entering into open markets mostly because they tend to use it as an export platform. I am expecting positive impact of this variable on the level of foreign investment.

Access to the European common market is captured by a dummy variable taking the value one if the country has access to the common market and zero otherwise. I would expect a positive sign of this variable with the motivation that foreign enterprises will have a direct access to the large common market that will induce them to invest in the country that has such an access.

5. DATA

I have assembled a dataset based on data that includes observations for the 16 chosen countries over the period from 2002 to 2006 covering the 5 main explanatory variables of the regression equation. The data used is extracted from the United Nations Statistics Division, the UNCTAD Handbook of Statistics 2007 (specifically, the data was obtained from the WIR Annex Tables), the World Economic Outlook Database provided by the International Monetary Fund, the United Nation's Human development reports from 2004 to 2008 and the Corruption Price Index Statistics from Transparency International CPI. I have decided to choose data from these international sources because it is accurate, complete, compatible and available for many countries and time periods. It is also highly reliable and unbiased. One of the problems I have faced when collecting data from this research was that data collected and

presented by different local statistical agencies was over exaggerated and unreliable. The cause can be the difference in definitions and methods used in collecting data, or in some cases the data can be used as governmental propaganda and exaggeration of real economic activities.

For year 2006, there is no available education index because the latest report 2007/2008 covers only year 2005. I have solved this problem by using the previous years observation as an approximation of the education index in 2006, which I think is reasonable given that general education improvements typically is a slow process. This is a judgement that I share with the UNCTAD organisation, which reports the education level of the previous time period if the data of the current year is not available. Another problem is that for some countries corruption data are missing for 2002 and sometimes for 2003. In these cases, I have approximated the missing data with the observation of the following year. I motivate my choice with the fact that institutional change is a slow process and that it takes some time for the bureaucratic system to change.

In my research I am particularly interested in the effect of different determinants of FDI in Belarus but in order to make a thorough and impartial analysis it is important to look at the development of neighbouring countries and countries with the same historical past. If a potential investor is going to invest money he will consider different countries in the region of interest and choose the one with the best investment opportunities. The investor will analyse the country's location in the region, its historical and current political and economic connections with other countries, the size of its economy, and the risks and costs involved. Following this motivation I have chosen 5 neighbouring countries to my country of interest; Russia, Ukraine, Poland, Latvia and Lithuania. The potential investor might choose between the countries that have trade agreements in order to have access to other markets. That's why I have chosen to analyse Belarus together with 11 other countries of the Commonwealth of Independent States, that are Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Moreover all CIS countries were a part of the Soviet Union and their structure and the organization of their economies are therefore very similar. They are also inter-connected by old trade linkages and are part of different free trade areas between each other: First, they are all part of the Eurasian Economic Community (EurAsEC), which includes Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Uzbekistan as full members and Armenia, Moldova and Ukraine as observers.

Second, they partake in the regional Organization for Democracy and Economic Development (GUAM), which includes Georgia, Ukraine, Azerbaijan, and Moldova. Third, Russia and Belarus have created a custom union that is called the United State of Russia and Belarus.

To sum up, I have included the 16 chosen countries because all of them have political and economic connections, they are located in the same region, they had common history and the start-up conditions for attracting FDI were approximately the same.

5. ESTIMATION RESULTS

In order to check if country and year dummies are reasonably included in the model I have conducted a Wald test. The results show that country dummies should be included (the null hypothesis that the country dummies have no effect on the FDI level in our regression can be rejected at the one percent level of significance) while year dummies should be left out of the regression. Since my Wald statistics could provide no evidence of that time dummies should be included in the model, I have estimated the regression model where specific time periods are not taken into account. The regression results are presented in Table 1.

Table 1. Regression results for model including country dummy variables

| Variable name / parameter estimate | Dependent variable: FDI stock | | |
|------------------------------------|-------------------------------|-----------|---------|
| | Coefficient | Std. Err. | p-value |
| GDP | .205 | .007 | 0.000* |
| Trade openness | 5294.43 | 6190.641 | 0.396 |
| Corruption | -199.075 | 1201.967 | 0.869 |
| Education | -21426.19 | 52239.67 | 0.683 |
| Access to ECM | 6039.578 | 1973.568 | 0.003* |
| Adj R-squared | 0.9918 | | |
| Number of observations | 81 | | |

*Indicates significance at 1 % level

The explanatory power of the regression is very high, with an adjusted R-squared value of 99 percent, which indicates that the model provides a good description of the determination of the FDI level for my country sample. I find that the variables *GDP* and *access to the European common market* are positive and statistically significant at less than 1% level. This is a predictable result taking into consideration the previous research literature. The enlargement of market size tends to stimulate the attraction of FDI to the economy. The larger the market size of the host country, the larger is the FDI because a main driving force behind multinational activity in the country is the direct market access to consumer and producer demand in that location. The significance and the positive sign of *access to European common market* is also an expected result because it implies that access to common market gives the investing firms a great opportunity to be present at several markets and export to several countries. The *corruption* and *education* variables have negative parameter coefficients while *trade openness* is positive but neither of these variables is statistically significant from zero. However it is a surprising result that *education* has no impact on the *FDI* level for my country sample. For most transition economies, in comparison with the developed countries, the key resource to attract the investments is labour, which is regarded as having relatively high levels of skills and training at relatively low cost.

In examining the country dummies, the ones for Poland and Kazakhstan are positive and highly statistically significant, illustrating that there are additional country-specific factors explaining the determination of *FDI* that is not picked up by explicit factors through the explanatory variables.

It is possible that some variables are highly correlated with each other, which can affect the parameter estimates of the model. In order to examine whether the estimation is affected by multicollinearity problems, I have analysed the simple correlation coefficients between all variables in the model. (A correlation matrix is included in the appendix). As can be seen from the correlation coefficients in the matrix, the corruption variable has a high correlation with the education and access to European common market variables. Despite the high correlation, I have decided to keep the corruption variable because I think that it is an important explanatory determinant of *FDI* representing the risk factor in the model. For other combinations of independent variables, the correlation coefficients are relatively low.

To provide a sensitivity analysis of that the regression results are not affected by the inclusion of country dummy variables, I rerun the regression without country dummies. The results from this regression are presented in Table 2.

Table 2. Regression results for model excluding country dummy variables.

| Variable name / parameter estimate | Dependent variable: FDI stock | | |
|------------------------------------|-------------------------------|-----------|---------|
| | Coefficient | Std. Err. | p-value |
| GDP | .207 | .006 | 0.000* |
| Trade openness | 6638.586 | 5868.814 | 0.263 |
| Corruption | -287.875 | 1135.93 | 0.801 |
| Education | -7205.502 | 49157.24 | 0.884 |
| Access to ECM | 6529.829 | 1738.503 | 0.000* |
| Adj. R-squared | 0.992 | | |
| Number of observations | 81 | | |

*Indicates significance at 1 % level

As can be seen from table 2, the regression results remain similar to those obtained for the original regression and it can thereby be concluded that the parameter estimates are unaffected by the inclusion of country dummies.

7. CONCLUSION

Understanding FDI flows into East European post-socialist countries is important because of the alleged importance of foreign capital as well as managerial and technological know-how in these countries' economic transformation after socialism (Bandelj, 2002).

The analysis in this paper has enabled the identification of several key determinants of the

FDI level in the transition economies of Eastern Europe and CIS countries. By selecting a suitable country sample for our region of interest and compiling a recent dataset, I have found that the FDI level is positively and significantly influenced by the market size of the host country and access to European markets. This result supports the previous theoretical and empirical research on foreign direct investment, emphasising the importance of market size and economic integration in attracting multinational firm activity. I cannot provide any empirical evidence of that trade openness, education and corruption affect the FDI level for our country sample.

Overall, the results illustrate that, as one would expect, that GDP and access to European common market are important determinants of the foreign direct investment level in the transition economies. These results highlight that countries with a large own market size and/or direct access to large markets can attract more multinational firm activity and thereby insure the inflow of capital, technologies and managerial skills in its economy. The results of my research should encourage policy makers with the intent to increase foreign direct investments into the country, to focus predominantly on their regional integration with other countries. As a consequence, the further economic growth in Belarus depends on the development of its business relations with rich, industrialized countries and, in particular, on its participation in the European common market. The results are encouraging in the sense that efforts towards enlarging the market size and integrating markets with other countries may help countries of Eastern Europe and CIS to receive more FDI and therefore to foster their transition into market economy.

The results of my research differ from previous studies on determinants of FDI in that education, trade openness and corruption cannot be shown to impact on foreign direct investment in the region. Education has been widely recognized by many scientists to be a positive and significant determinant of FDI (see f.ex. Noorbakhsh et al, 2001). The difference in my research can be explained by the fact that the level of education is already on the same relatively high level in all countries from the sample. In the FDI literature the maintained hypothesis regarding trade openness is: Given that most investments projects are directed towards the tradable sector, a country's degree of openness to international trade should be a relevant factor in this decision. My research has shown that trade openness doesn't affect FDI stock in the countries of my region of interest. This may partly be due to the fact that these countries already are relatively well integrated because of their close trade links inherited

from the Soviet times on one hand and the strong cooperation in different regional economic integration agreements within the region on the other hand. Many researches generally agree that corruption has a negative impact on FDI level in the economy and Wei (1997) claims corruption to be the most important factor that affects FDI. For my country sample, it is clearly surprising that corruption does not appear to affect the results given that these are countries that typically have inherited relatively corrupt government organisations from the past. One possible explanation is that corruption levels are bound to be measured with large errors.

Realizing the necessity of attracting multinational firm investments, the government of Belarus has started to implement policies that try to attract FDI, f.ex by strengthening the standards of treatment for foreign companies. It has adopted an Investment Code to protect the rights of investors and continues to develop infrastructure and promote Free Economic Zones with privileges for multinational firms that invest into Belarusian economy. Unfortunately, little attention has so far been directed towards working for obtaining EU membership.

One important aim for future research is to find a compatible accurate measure for physical stock and analyse its impact on foreign direct investment in our model frame. Another interesting analysis to pursue further would be to examine why Poland and Kazakhstan have positive country-specific effects on multinational firm activity that cannot be captured by our current model.

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9. APPENDIX

Data Table

| FDI | Country | Year | GDP | Trade openness | Corrup. | Educ. | Access to ECM |
|---------|------------|------|--------|-------------------|---------|-------|------------------|
| 1 646 | Belarus | 2002 | 14595 | 1,313 | 4,8 | 0,95 | 0 |
| 1 899 | Belarus | 2003 | 17825 | 1,341 | 4,2 | 0,95 | 0 |
| 2 057 | Belarus | 2004 | 23142 | 1,421 | 3,3 | 0,95 | 0 |
| 2 383 | Belarus | 2005 | 30210 | 1,189 | 2,6 | 0,96 | 0 |
| 2 734 | Belarus | 2006 | 36945 | 1,241 | 2,1 | 0,96* | 0 |
| 70 884 | Russia | 2002 | 345488 | 0,596 | 2,7 | 0,95 | 0 |
| 96 729 | Russia | 2003 | 431488 | 0,59 | 2,7 | 0,96 | 0 |
| 122 295 | Russia | 2004 | 591666 | 0,565 | 2,8 | 0,95 | 0 |
| 168 950 | Russia | 2005 | 764382 | 0,567 | 2,4 | 0,96 | 0 |
| 197 682 | Russia | 2006 | 984927 | 0,551 | 2,5 | 0,96* | 0 |
| 5 924 | Ukraine | 2002 | 42393 | 1,058 | 2,4 | 0,94 | 0 |
| 7 566 | Ukraine | 2003 | 50133 | 1,129 | 2,3 | 0,95 | 0 |
| 9 606 | Ukraine | 2004 | 64881 | 1,196 | 2,2 | 0,94 | 0 |
| 17 311 | Ukraine | 2005 | 86142 | 1,021 | 2,6 | 0,95 | 0 |
| 22 514 | Ukraine | 2006 | 106469 | 0,972 | 2,8 | 0,95* | 0 |
| 3 981 | Lithuania | 2002 | 14134 | 1,113 | 4,8 | 0,96 | 0 |
| 4 959 | Lithuania | 2003 | 18558 | 1,084 | 4,7 | 0,97 | 0 |
| 6 388 | Lithuania | 2004 | 22508 | 1,114 | 4,6 | 0,97 | 1 |
| 8 211 | Lithuania | 2005 | 25667 | 1,236 | 4,8 | 0,97 | 1 |
| 10 938 | Lithuania | 2006 | 29283 | 1,354 | 4,8 | 0,97* | 1 |
| 2 751 | Latvia | 2002 | 9315 | 0,915 | 3,7 | 0,95 | 0 |
| 3 276 | Latvia | 2003 | 11186 | 0,967 | 3,8 | 0,96 | 0 |
| 4 517 | Latvia | 2004 | 13762 | 1,035 | 4 | 0,96 | 1 |
| 4 993 | Latvia | 2005 | 16042 | 1,101 | 4,2 | 0,96 | 1 |
| 7 532 | Latvia | 2006 | 20101 | 1,086 | 4,7 | 0,96* | 1 |
| 4 226 | Estonia | 2002 | 7306 | 1,496 | 5,6 | 0,98 | 0 |
| 7 001 | Estonia | 2003 | 9592 | 1,498 | 5,5 | 0,97 | 0 |
| 10 064 | Estonia | 2004 | 11646 | 1,598 | 6 | 0,97 | 1 |
| 11 290 | Estonia | 2005 | 13753 | 1,66 | 6,4 | 0,97 | 1 |
| 12 664 | Estonia | 2006 | 16089 | 1,759 | 6,7 | 0,97* | 1 |
| 48 320 | Poland | 2002 | 198003 | 0,607 | 4 | 0,96 | 0 |
| 57 877 | Poland | 2003 | 216535 | 0,693 | 3,6 | 0,96 | 0 |
| 86 366 | Poland | 2004 | 252118 | 0,772 | 3,5 | 0,95 | 1 |
| 89 694 | Poland | 2005 | 302641 | 0,744 | 3,4 | 0,95 | 1 |
| 103 616 | Poland | 2006 | 335675 | 0,825 | 3,7 | 0,95* | 1 |
| 5 355 | Azerbaijan | 2002 | 6236 | 0,928 | 2 | 0,88 | 0 |
| 8 640 | Azerbaijan | 2003 | 7276 | 1,076 | 1,8 | 0,89 | 0 |
| 12 196 | Azerbaijan | 2004 | 8680 | 1,215 | 1,9 | 0,89 | 0 |
| 13 876 | Azerbaijan | 2005 | 13245 | 1,158 | 2,2 | 0,88 | 0 |
| 13 275 | Azerbaijan | 2006 | 19851 | 1,113 | 2,4 | 0,88* | 0 |
| 763 | Armenia | 2002 | 2376 | 0,76 | 3* | 0,9 | 0 |
| 884 | Armenia | 2003 | 2807 | 0,822 | 3 | 0,9 | 0 |
| 1 103 | Armenia | 2004 | 3577 | 0,695 | 3,1 | 0,91 | 0 |
| 1 361 | Armenia | 2005 | 4903 | 0,669 | 2,9 | 0,9 | 0 |
| 1 704 | Armenia | 2006 | 6406 | 0,56 | 2,9 | 0,9* | 0 |
| 1 002 | Georgia | 2002 | 3396 | 0,716 | 2,4 | 0,89 | 0 |
| 1 342 | Georgia | 2003 | 3991 | 0,783 | 1,8 | 0,9 | 0 |
| 1 841 | Georgia | 2004 | 5126 | 0,797 | 2 | 0,91 | 0 |
| 2 291 | Georgia | 2005 | 6411 | 0,853 | 2,3 | 0,91 | 0 |
| 3 367 | Georgia | 2006 | 7742 | 0,898 | 2,8 | 0,91* | 0 |
| 470 | Kyrgystan | 2002 | 1606 | 0,829 | 2,1* | 0,92 | 0 |
| 502 | Kyrgystan | 2003 | 1922 | 0,839 | 2,1 | 0,93 | 0 |

| | | | | | | | |
|--------|--------------|------|-------|-------|------|-------|---|
| 505 | Kyrgyzstan | 2004 | 2212 | 0,938 | 2,2 | 0,92 | 0 |
| 518 | Kyrgyzstan | 2005 | 2460 | 0,951 | 2,3 | 0,92 | 0 |
| 593 | Kyrgyzstan | 2006 | 2819 | 1,157 | 2,2 | 0,92* | 0 |
| 15 464 | Kazakhstan | 2002 | 24637 | 0,94 | 2,3 | 0,93 | 0 |
| 17 587 | Kazakhstan | 2003 | 30834 | 0,915 | 2,4 | 0,94 | 0 |
| 22 376 | Kazakhstan | 2004 | 43152 | 0,964 | 2,2 | 0,96 | 0 |
| 25 614 | Kazakhstan | 2005 | 57124 | 0,983 | 2,6 | 0,97 | 0 |
| 32 476 | Kazakhstan | 2006 | 77237 | 0,96 | 2,6 | 0,97* | 0 |
| 639 | Moldova | 2002 | 1662 | 1,298 | 2,1 | 0,87 | 0 |
| 715 | Moldova | 2003 | 1981 | 1,4 | 2,4 | 0,85 | 0 |
| 870 | Moldova | 2004 | 2598 | 1,327 | 2,3 | 0,89 | 0 |
| 1 060 | Moldova | 2005 | 2988 | 1,43 | 2,9 | 0,89 | 0 |
| 1 284 | Moldova | 2006 | 3356 | 1,411 | 3,2 | 0,89* | 0 |
| 182 | Tajikistan | 2002 | 1221 | 1,389 | 1,8* | 0,9 | 0 |
| 195 | Tajikistan | 2003 | 1555 | 1,377 | 1,8 | 0,91 | 0 |
| 251 | Tajikistan | 2004 | 2076 | 1,284 | 2 | 0,9 | 0 |
| 306 | Tajikistan | 2005 | 2312 | 1,271 | 2,1 | 0,9 | 0 |
| 645 | Tajikistan | 2006 | 2813 | 1,311 | 2,2 | 0,9* | 0 |
| 847 | Uzbekistan | 2002 | 9877 | 0,626 | 2,4* | 0,91 | 0 |
| 917 | Uzbekistan | 2003 | 10155 | 0,677 | 2,4 | 0,91 | 0 |
| 1 104 | Uzbekistan | 2004 | 12016 | 0,739 | 2,3 | 0,91 | 0 |
| 1 192 | Uzbekistan | 2005 | 13751 | 0,696 | 2,2 | 0,91 | 0 |
| 1 356 | Uzbekistan | 2006 | 16137 | 0,704 | 2,1 | 0,91* | 0 |
| 1 395 | Turkmenistan | 2002 | 4531 | 0,682 | 2* | 0,93 | 0 |
| 1 621 | Turkmenistan | 2003 | 4779 | 0,648 | 2* | 0,91 | 0 |
| 1 975 | Turkmenistan | 2004 | 5160 | 0,652 | 2 | 0,91 | 0 |
| 2 393 | Turkmenistan | 2005 | 5795 | 0,583 | 1,8 | 0,9 | 0 |
| 3 124 | Turkmenistan | 2006 | 6500 | 0,592 | 2,2 | 0,9* | 0 |

* Data refer to a year other than that specified.

Correlation Matrix

| | FDI | GDP | Trade | Corrupt. | Educat. | Access |
|----------------|---------|---------|--------|----------|---------|--------|
| FDI | 1.0000 | | | | | |
| GDP | 0.9812 | 1.0000 | | | | |
| Trade openness | -0.3865 | -0.3995 | 1.0000 | | | |
| Corruption | 0.0159 | -0.0246 | 0.4627 | 1.0000 | | |
| Education | 0.3484 | 0.3244 | 0.1148 | 0.6436 | 1.0000 | |
| Access to ECM | 0.1352 | 0.0463 | 0.2648 | 0.6349 | 0.4437 | 1.0000 |

Descriptive Statistics

| Variable | Mean | Std. Dev. | Min | Max |
|----------------|----------|-----------|------|--------|
| FDI | 17825.25 | 37106.07 | 182 | 197682 |
| GDP | 69898.61 | 167734.9 | 1221 | 984927 |
| Trade openness | 1.000287 | .3033519 | .551 | 1.759 |
| Corruption | 2.9825 | 1.16584 | 1.8 | 6.7 |
| Education | .929625 | .0313188 | .85 | .98 |
| Access to ECM | .15 | .3593243 | 0 | 1 |