The impact of the political environment on FDI attractiveness of BRIC countries

Bachelor’s Thesis in Economics
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Abstract

As we have seen in the last century the world has become smaller and globalization plays an important role in the economy nowadays. One of the most important goals of the government is to commit the economic growth, and as it can be seen on the example of BRIC countries one of the ways in order to do so is to attract Foreign Direct Investments. This research takes a closer look at what changed in those countries over the last decade and what the main factors are which could help to attract foreign capital.

This study aims to find out how did developing economies of Brazil, Russia, India and China, managed to attract FDI and which factors were the most important. Did the government play the important role in this process, or was it just natural due to the high amount of resources, like in Russian and Brazil? In order to do so, the paper will analyze the background and previous studies on this topic and help to develop the strategy for the economic growth by attracting FDI. The paper is analyzing impact of changes in certain variables on the change in FDI to the country. Variables are based on the previous researches, but can be changed based on the background in order to find a new view on the topic.
Table of Contents

Contents

Table of Contents ............................................................................................................................................................ 3
Introduction ........................................................................................................................................................................ 4
  1.1 Purpose ................................................................................................................................................................. 5
2. Background ................................................................................................................................................................... 6
  2.1 Foreign Direct Investment ................................................................................................................................. 6
  2.2 Current situation .................................................................................................................................................... 8
  2.3 Economies of BRIC countries .......................................................................................................................... 9
  2.4 Previous studies .................................................................................................................................................. 10
3. Empirical Analysis ....................................................................................................................................................... 11
  3.1 Model Specification ............................................................................................................................................ 12
  3.2 Variable definitions ............................................................................................................................................ 13
4. Empirical Results ......................................................................................................................................................... 15
  4.1 Descriptive statistics and change of FDI over the time .................................................................................... 15
  4.2 Regression Data analysis ................................................................................................................................... 19
5. Conclusion ................................................................................................................................................................. 22
6. References ................................................................................................................................................................. 26
**Introduction**

The main purpose of this paper is to examine what factors that are of most importance with respect to explain variation in FDI in the countries Brazil, Russia, India and China (the BRIC-countries) the past decades. The BRIC-countries are chosen since they have been identified as growing in importance in the world economy and also since the represent countries that develops and have economic growth trends that has been of significant magnitude. FDI:s has also been considered to be one essential factor driving this development.

During last ten years the world has also experienced economic crisis, in particular during 2008 and 2009, and the strongest economies of the world are still recovering from it. During the years of the crisis it became evident how dependent export oriented economies are with respect to the overall performance of the world economy. It has also been revealed how the change in economic power has shifted in the world during the last decades with a new distribution where countries like the BRIC-countries now are more important compared with the situation 30 years ago. Earlier the economic power was more concentrated to Europe and North America, while it now have moved more towards Asia and South America.

Over the last decade, the economic situation in the world changed with the improved economic performance in the BRIC countries. The impact of these countries on the international trade has changed by substantial proportions. Both the real- and monetary sides of the economies are affected. Changes in the international money markets lead to significant changes in the global economic environment. One of the reasons why this change was possible is that these countries introduced a lot of changes in the political regulations. These changes helped national economies to integrate to the international level, which lead to the significant increase of the production and also brought FDI to the BRIC countries.

There are many differences in terms of these countries development, however, BRIC countries also have a lot of common characteristics, including: a significant role in international trade based on the intense growth, intense process of urbanization and industrial development (as well as a high population level), big territory and a large amount of natural resources that allow them to obtain a strategic position on a global level.

The economies of these countries are experiencing a significant change from what they were
before and adapting to the reality and new rules in the world. Over last decades, liberal reforms in these four countries made the integration of the world capital into domestic markets much easier than it was before. According to the Standard Poor’s ranks of countries are: China AA-, Russia – BBB, Brazil and India – BBB-. According to these ranks we can assume that all the countries are experiencing an economic growth and being quite attractive for foreign capital investment. Therefore, the level of interest to these countries is growing due to the high pace of development and the level of integration into the world economy is stable and keeps increasing. Out of these BRIC block countries, governments have different strategies. However, the reason of their attractiveness to international capital can also be described as a difference between these economies and the economies of the developed countries. That’s why it is interesting to analyze their policies and see if they are similar or not and foreign investors behavior depending on the governmental decisions.

1.1 Purpose

The purpose of this research is to investigate which factors are the most important for the developing countries to attract Foreign Direct Investments, and how they change with the development of a country, with the example of BRIC countries. While analyzing data, this paper aims to find out which of the variables are significant, and which are not, for the specific countries and to explain it by the previous researches. Also, the purpose of the research is to see the similarities and differences of the FDI attracted by different countries from the BRIC-block. It should be noticed that the empirical analysis in this study focus on the question of which of the selected explanatory variables provide relative most influential power to explain the variation in FDI in the countries. The study does not include political variables.
2. Background

2.1 Foreign Direct Investment

Foreign Direct Investments is a strong factor of the economic growth and additional source of the capital into the economy. Usually, FDI is followed by technologies, new methods of production and innovative management. In times of globalization, while the scale of the international capital mobility is growing, the role of FDI as a factor of the economic growth has increased rapidly, which makes it interesting to study the impact of the international capital on the economy of the nation which imports capital and on the international relations and trade. Even though usually FDI has a really positive effect on the national economy, the competition in order to obtain it is growing as well. Different studies are showing the results, which have the same aim to develop a strategy which will allow the country to attract more Foreign Direct Investment. The study of Méon and Sekkat (2012) named “FDI Waves, Waves of Neglect of Political Risk” states that FDI’s come in waves.

Also, it states that FDI is influenced less by the political risks than by the total amount of the FDI in the world. These means that the amount of the capital imported is more dependent on the economic situation in the world, than on actual political situation in the country. In order to prove this, Meon and Sekkat (2012) provide the statistics by Mody (2004), which states: “Foreign direct investment is also sensitive to global factors, which results in the fluctuation of the global volume of FDI, in spite of a secular upward trend. For instance, it rose from 0.93% of world GDP in 1990 to approximately 4.79% in 2000. However, in 2003, it was down to 1.57% of world GDP, less than its 1997 level”.

Foreign Direct Investment (FDI) finance domestic investment of countries which can enhance creation of jobs. FDI is seen as more stable in terms of changes that occur in the economic environment of the country than portfolio investments and credits that has a short term. These are underlying reasons as to why countries are looking to attract FDI (Hayakawa, Kimura & Lee, 2011).

Furthermore, there are some controversial studies, like for example by Irsova (2013) from Charles University in Prague. Her research is showing that there might not be a real relationship between the actual level of FDI and the productivity of the firm, which means that some of the capital investments are not very efficient, what is directly related to the political and economic situation
of the country studied.

On the other hand, it is important to understand that there are a lot of specifications on the move of the capital from one country to another, and it is hard to develop one unique strategy to attract FDI, for example what could be the effect of the preferential trade agreements on the FDI? Researches on this topic are showing the significant increase of the FDI between the two sides, which have such an agreement. (Medvedev, 2012)

For the last 5 years: 2008-2013, the total amount of the Foreign Direct Investments was over 10 trillion USD, and out of this volume, 14% went to Brazil, Russia, India and China, while from these four countries was invested 7% of the total foreign direct investments. Leader among FDI receivers is China, they receive 6% of the world FDIs or almost half of the incoming investments to BRIC countries, while China and Russia both hold 3% of the world FDI as investors to other countries (Pahomov, 2011).

“Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction” - North (1990, p.3).

It is important to see the difference between institutions and organizations, as they are both being components to support the human’s interaction, however, they are different and if we will try to make interpretation about them, then institutions are making rules for the game and organizations are players. They are strongly connected, but the aim of making rules is to set up the way that the game can be played. As an example of organizations can be considered politic parties, universities, unions, parts of the governmental structure, and all others who is working in order to achieve some result, means they have the same aims. All these organizations can be considered as agents of the institutional change and development due to their position of work with rules. However, as long as institutions are created by humans and their main purpose is to establish and control the processes in the society, it would be essential if the rules of the game are based on the behavior of the players. On the other hand, the theory is not always easy to transfer into real life situation and some questions are still valid nowadays. It would be essential if the society could control institutes, and if some of them were working inefficient it could be eliminated by the group of people. Also, if there is competition only the most successful and competitive institutions can survive. Lastly, a question of how it is possible that the difference between the economies in the long run can be that significant can be raised. However, it is essential that is caused by those who create the system, by players and institutions. The answer is
based on the difference in rules, because players have to adapt their strategy accordingly and in every new environment the strategies which were successful before might just lead to the collapse (North, 1990).

2.2 Current situation

Even though it is essential, it is difficult to bring investors to undeveloped areas with unstable politic regimes. It is still of great importance as it leads to significant area developments. In this thesis, the researcher will conduct a research about Foreign Direct Investments (FDI) in BRIC countries. Lately, these countries are taking leading positions in the recovering of the world economy and this process is strongly supported by the growing of the domestic demand (Chen, Wang, 2012). In these days, the biggest challenge for the BRIC countries is to develop domestic economic growth institutions and their policies, and if they will manage to do so, then the gap between the Western world and so-called “developing countries” will decrease significantly (Wilson & Purushothaman, 2003).

The first time “BRIC” was used as a term was by Jim O’Neill in 2001 in his paper “Building Better Global Economic BRIC”, who was working as an analyst for a full-service global investment banking and securities firm Goldman Sachs at that time. Since that time, BRIC is being used widely and often associated with the movement of the global economic power from the west to the new developing markets. Also, by forecasts made by Goldman Sachs, BRIC will leave G7 economies behind by the 2027. In 2013, the total GDP of Brazil, Russia, China and India makes up about 19% of the total world GDP (Goldman Sachs BRIC Fund, 2010).

However, Goldman Sachs did not expect BRIC countries to create a union. On the other hand, lately there have been some indicators showing that it might actually happen and these four countries may create a trade association like European Union. Even though the governments played a significant role in bringing FDI into these countries, it is important to underline that BRIC has a lot of its own resources; Brazil is rich in agricultural aspects, India has cheap intellectual resources, Russia is the world’s biggest exporter of mineral resources, and China has cheap labor. Also, together these countries have 25% of all the earth territory and 40% of the world population. According to the Goldman Sachs forecast, China and India will be the biggest producers of the industrial products and services, while Russia and Brazil will become biggest exporters of the natural resources. Therefore, the alliance can be logically
created as long as Russia and Brazil will be the suppliers of China and India. In 2004, the research department of Goldman Sachs released a new report about BRIC, where they studied the main tendencies in the society of these countries and their domestic markets (Goldman Sachs Annual Report, 2003, 2007). The paper showed that the number of people with annual earnings over 3000 USD will double in three years and will be over 800 million by 2014. Nowadays, this forecast seems to be true even though the countries were impacted by the global economic crisis, but the fact that the middle class in the BRIC countries is growing fast is still true. According to the new forecast, by 2025 over 2 billion people out of these four countries will be earning over 15 000 USD annually (Goldman Sachs Annual Report, 2003, 2007).

The change in the earnings of the population will reflect on the demand on the markets, and besides basic group of goods the supply for the more expensive products will grow rapidly in order to satisfy the market needs. However, population plays a big role in the success of the BRIC countries, and at the same time, in the six most populated countries of the European Union the GDP per capita will be 35 000 USD by 2025, while in the BRIC countries it will only be 24 million people with such a level of income. The report also underlines some facts such as inefficient use of electricity in India and that economies of these countries are still represented rather low in the world market of high quality goods (Goldman Sachs Annual Report, 2003, 2007).

\[2.3\text{ Economies of BRIC countries}\]

The economies of these countries are experiencing a significant change from what they were before and adapting to the reality and new rules in the world. Over last decades, liberal reforms in these four countries made the integration of the world capital into domestic markets much easier than it was before. According to the Standard Poor’s ranks of countries are: China AA-, Russia – BBB, Brazil and India – BBB-. According to these ranks we can assume that all the countries are experiencing an economic growth and being quite attractive for foreign capital investment. Therefore, the level of interest to these countries is growing due to the high pace of development and the level of integration into the world economy is stable and keeps increasing.

Out of these BRIC block countries, governments have different strategies. However, the reason of their attractiveness to international capital can also be described as a difference between these economies and the economies of the developed countries. That’s why
It is interesting to analyze their policies and see if they are similar or not and foreign investors behavior depending on the governmental decisions.

2.4 Previous studies


They tested their hypothesis of the variables impact and got results which satisfy their purposes and which will be compared in the conclusion section with the results obtained in this research. The difference between these two studies is in using new variables, which was suggested by the Ranjan, Agrawal paper in the conclusion section. In this paper I will study the impact of these variables on each of the countries independently, while in the paper mentioned above they studied the impact of them on the BRIC countries FDI inflow together.
3. Empirical Analysis

Foreign direct investment (FDI) can be explained by a number of factors. Foreign investors are assumed to make their decision of investments both from the perspective of the demand side they are meeting for the products they sell and from the conditions for production and costs they have. Since transportation costs has been declining over time it is possible to locate production at places that have advantage with respect to low cost for the production, close to natural resources, etc. Comparative advantages tied to places may, hence, serve as strong source for localization of industries.

The choice of model for the empirical analysis with the purpose to explain FDI on national level is motivated from the background in the previous studies in this thesis. From an economic perspective the choice of variables is made in order to mirror accessibility (air transportation), access to energy (electric power), performance of the national industry (industry, value added), macroeconomic conditions influencing price and cost competition on the world market (inflation) and access to natural resources (total natural resources). The variables used in the empirical analysis are the one mentioned above in brackets. Accordingly, the choice of variables have been made in order to both characterize the most important types of conditions previous studies are pointing out, and springs also from trade theory and the role of comparative advantages that is a cornerstone in this field of studies. The ex-ante expectations for how the different variables should correlate with FDI in general positive meaning that higher quality in air transportation, electric power, industry performance and access to natural resources should be likely to have a positive influence on FDI. Inflation, on the other hand, can be assumed to have the opposite sign and it may also be a limitation for an economy if there is a very high variation in inflation over time. In particular, in the empirical analysis that follows in this study we are particularly interested in the question of which of the selected explanatory variables that support with relative most influential power to explain the variation in FDI in the countries.

It should also be mentioned that other types of circumstances may have influence on FDI. For example corruption, political risk, cultural and language differences, etc. However, in this study, a choice has been made to limit the empirical analysis and focus on the variable identified above.
3.1 Model Specification

In order to process the empirical analysis, linear regression has been used, which estimates the coefficients of the linear equation. Also, that will allow seeing the potential correlation. The main purpose of the correlation is to see how the change in different factors impacts the level of the FDI. In this model for the regression, different variables will be used which have direct or indirect impact on the Foreign Direct Investments Inflow, which will be the dependent variable. Below is an explanation of linear regression, which estimates the coefficients of the linear equation:

Foreign Direct Investments = C + \beta_1 \times \text{Registered carrier departures worldwide} + \beta_2 \times \text{Electric power consumption} + \beta_3 \times \text{Industry, value added} + \beta_4 \times \text{Inflation, GDP deflator} + \beta_5 \times \text{Total natural resources rents (\% of GDP)} + \epsilon,

This type of regression will estimates \beta coefficients for each of independent variables, which together indicate how the different variables are related with the dependent variable.
3.2 Variable definitions

Considering the background of the topic and previous studies on it, where for the research were used next variables: Market size, Economic stability and Growth prospects, Trade openness, Infrastructure facilities, Labor cost and Gross capital formation, I decided to pick variables that can be compared to the variables that been used in the previous studies, so it will be correct to compare results as well.

Market size variable I will connect with Total natural resources rents (% of GDP) in my paper, due to the impact that both variables have on the perspectives of the international investments. It can be explained by the fact that investments in the countries with a big domestic market are more likely to have a good ROI, as a perfect example here we can talk about Russian, where big International companies open own manufacturing, due to the lower taxes that they have to pay in that case and a great possibility to increase their share on the domestic market. Also developed economies of the world are interested in investments into natural resources, what has a great impact on economy of Russia. At the same time China attracted a lot of international manufacturers to build their factories in the country by introducing the law that puts restrictions on export of some natural resources in a raw form, however there were no restrictions on manufacturing final goods inside the country. Economic stability in my research will be represented with Inflation. FDI in a country means that from now on investor will have to deal with countries domestic currency, and inflation is one of the key indicators to see how stable economy of the country is. Trade openness and access to world markets will be represented as registered carrier departures worldwide, because this number represents how logistic background of the country allows it to reach worldwide market. Infrastructure facilities will be connected to Electric power consumption in my paper, because both variables are aiming to show how the change in infrastructure is impacting FDI to the country.

The dependent variable is Foreign Direct Investments (FDI). FDI shows the amount of the net inflows investments into the country.

Independent variables:
Registered carrier departures worldwide.
This variable represents the amount of domestic and abroad flights made by the air service, which are registered in the specific country. Developed infrastructure of the country is reflected in the example of air transport possibilities (The data was collected from The World Bank Group's Official Website (2013)).

*Electric power consumption.*

This variable represents the amount of electric power produced in the specific country. It aims to show how the production of the electricity changes over time with the development of the country and to investigate how it is related to the FDI attractiveness (The data was collected from The World Bank Group's Official Website (2013)).

*Industry, value added.*

This variable represents “the value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water, and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.” (The World Bank Group's Official Website (2013)).

*Inflation, GDP deflator.*

This variable represents what the annual growth rate of the Gross Domestic Product is, and due to the deflator shows how the price changes into the whole economy, using the equation between the current prices in the local currency and the constant prices in local currency. It is measured annually in percentage (The data was collected from The World Bank Group's Official Website (2013)).

*Total natural resources rents (% of GDP).*

This variable represents the total amount of “oil rents, natural gas rents, coal rents (all types), mineral rents, and forest rents.” (The World Bank Group's Official Website (2013)).

The error, $\epsilon$, is a random variable with a mean of zero conditional on the explanatory variables.
4. Empirical Results

4.1 Descriptive statistics and change of FDI over the time

In order to make it easier to understand the results of the paper and review the empirical analysis here will be presented descriptive statistics with visual representation of results in form of plots and Table 1, which will include mail statistical indicators. The list of indicators is standard for such papers and available below.

Table 1, Descriptive statistics and change of FDI over the time (different number of years for each country, last year is 2012).

<table>
<thead>
<tr>
<th></th>
<th>Brazil</th>
<th>Russia</th>
<th>India</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15631812381</td>
<td>2E+10</td>
<td>6,25E+09</td>
<td>6,47E+10</td>
</tr>
<tr>
<td>Standard Error</td>
<td>3305692878</td>
<td>5,16E+09</td>
<td>1,88E+09</td>
<td>1,44E+10</td>
</tr>
<tr>
<td>Median</td>
<td>2991000000</td>
<td>4,86E+09</td>
<td>5,5E+08</td>
<td>3,88E+10</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>20377659465</td>
<td>2,36E+10</td>
<td>1,14E+10</td>
<td>8E+10</td>
</tr>
<tr>
<td>Sample Variance</td>
<td>4,15249E+20</td>
<td>5,58E+20</td>
<td>1,31E+20</td>
<td>6,4E+21</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1,977420038</td>
<td>-0,34608</td>
<td>3,405737</td>
<td>1,491005</td>
</tr>
<tr>
<td>Skewness</td>
<td>1,610291832</td>
<td>1,018912</td>
<td>2,106782</td>
<td>1,54547</td>
</tr>
<tr>
<td>Range</td>
<td>75765663189</td>
<td>7,41E+10</td>
<td>4,34E+10</td>
<td>2,8E+11</td>
</tr>
<tr>
<td>Minimum</td>
<td>345000000</td>
<td>6,9E+08</td>
<td>-3,6E+07</td>
<td>4,3E+08</td>
</tr>
<tr>
<td>Maximum</td>
<td>76110663189</td>
<td>7,48E+10</td>
<td>4,34E+10</td>
<td>2,8E+11</td>
</tr>
<tr>
<td>Sum</td>
<td>5,94009E+11</td>
<td>4,21E+11</td>
<td>2,31E+11</td>
<td>2,01E+12</td>
</tr>
<tr>
<td>Count</td>
<td>38</td>
<td>21</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>Confidence Level(95,0%)</td>
<td>6697969994</td>
<td>1,08E+10</td>
<td>3,81E+09</td>
<td>2,94E+10</td>
</tr>
</tbody>
</table>


The information in the table above reveal some characteristics with respect to how FDI differs between the four countries in the study. As we can see from the table, there are significant differences over time (compare minimum and maximum, standard variation, etc.) and also between the countries (compare mean and median).

Looking at figures № 1, 2, 3, 4 below, we can see the change of the Foreign Direct Investments into Brazil, Russia, India and China over the time. The time periods vary a bit due to the data
availability and other reasons. One such reason is linked to openness and as in the case of Russia, the collapse of the Soviet Union, which imply that there is no data for Russia before 1992.

As we can see it is possible to divide the graphs for each country into a few sections. Significant growth of the FDI into China started in 1991 and in Brazil and India a bit later around 1995. As for Russia, it took about 10 years for the country (after the collapse of the Soviet Union in 1991) to develop a renewed restructure the economy and attract foreign Investors making them interested in doing business in the country.

Since 1990 and during the 1990s, trade became one of the most important factors in the developing economies structural transformation of the economy into import oriented countries of Brazil, India and China and a few years later Russian joined them as well. This is supported by numbers as during the thirty years from 1980 till 2010 the share of the world exports of BRIC counties grew from 4 to 13 percent.

It is also easy to identify the impact of the 2008 crisis on the FDI inflow in BRIC countries, but in the next years BRIC countries have managed to decrease those impacts by showing significant growth of economies again, and as China announced in 2012 it’s economy grew up by 10,7%, while the rest of the countries from this block also reported strong results.

Significant change in the investments inflow has been experienced by each country, which is something that supports the underlying assumption or hypothesis of this paper research concerning how countries from the BRIC-block managed to get the economic environment in the countries to develop and change in way that makes them more attractive for international investments. In the next chapter we will analyze the independent variables with respect to the question if they contribute to explain the changes in FDI flow in a significant way and, hence, can be assumed to have had an impact on the FDI.
Figure 1: FDI Inflows to Brazil from 1975 to 2012


Figure 2: FDI Inflows to Russian Federation from 1992 to 2012

Figure 3: FDI Inflows to India from 1975 to 2011


Figure 4: FDI Inflows to China from 1982 to 2012

4.2 Regression Data analysis

As long as using the aggregate values for an ordinary least square estimation in the empirical analysis in this paper would not be sufficient enough due to a possibility of the autocorrelation. In order to solve this problem, we are using the first-difference estimation model. Below is a representation of regression output for all countries and key factors. The empirical analysis is using Foreign Direct Investments (FDI) as dependent variable (net inflow of investments that are published in the balance of payment for each country). The independent variables are air transports (number of departures that are registered), electric power consumption (kWh), industry performance (value added in current US$), inflation rate (GDP-deflator), total natural resources (rent in % of GDP).

Empirical analysis using time-series data are presented for the four countries in table 2 below. The estimation is made using OLS-procedure. The total time-periods are presented in the head of table 2 and differs between the countries. This means that also the number of observations differs between the countries (Brazil=38, Russia=21, India=37 and China=31). It should be notified that in this study we focus on the question of significance for the particular variables chosen.

The results presented in table 2 shows the standardized beta-coefficients, and below each of these coefficients the unstandardized and standardized standard errors are reported. The choice of reporting the standardized beta coefficients has been made since, in this analysis, we are interested in order to find out which of the independent variables that have the relative greatest influence on the dependent variable FDI. This is also motivated since the different variables are reported in different units of measurement. The independent variables are standardized in the ordinary way which means there variance are 1. Because of reporting standardized beta-coefficients it is motivated to report both the standardized and unstandardized standard errors in order to both reveal information of the unstandardized and standardized distributions.
Table 2, FDI in Brazil, Russia, India and China

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Air transport</td>
<td>0.321**</td>
<td>-1.275</td>
<td>0.779***</td>
<td>-0.267</td>
</tr>
<tr>
<td></td>
<td>19684.69</td>
<td>43278.03</td>
<td>15992.66</td>
<td>55518.13</td>
</tr>
<tr>
<td></td>
<td>51802.68</td>
<td>-68426</td>
<td>103123.6</td>
<td>-69747.4</td>
</tr>
<tr>
<td>Electric power</td>
<td>0.327**</td>
<td>0.6</td>
<td>0.206**</td>
<td>0.474</td>
</tr>
<tr>
<td></td>
<td>0.143</td>
<td>0.042</td>
<td>0.035</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>0.304</td>
<td>0.035</td>
<td>0.064</td>
<td>0.097</td>
</tr>
<tr>
<td>Industry, value add</td>
<td>0.373**</td>
<td>1.219**</td>
<td>-0.719***</td>
<td>0.367</td>
</tr>
<tr>
<td></td>
<td>0.035</td>
<td>0.031</td>
<td>0.027</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>0.085</td>
<td>0.197</td>
<td>-0.153</td>
<td>0.056</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.008</td>
<td>0.025</td>
<td>-0.063</td>
<td>0.328**</td>
</tr>
<tr>
<td></td>
<td>1542535</td>
<td>11982823</td>
<td>1.14E+08</td>
<td>8.17E+08</td>
</tr>
<tr>
<td></td>
<td>106326.5</td>
<td>772846.2</td>
<td>-8.4E+07</td>
<td>1.86E+09</td>
</tr>
<tr>
<td>Total natural resources</td>
<td>0.186</td>
<td>-0.093</td>
<td>0.536***</td>
<td>-0.113</td>
</tr>
<tr>
<td></td>
<td>1.33E+09</td>
<td>2.43E+08</td>
<td>3.35E+08</td>
<td>7.42E+08</td>
</tr>
<tr>
<td></td>
<td>2E+09</td>
<td>-1.4E+08</td>
<td>2.04E+09</td>
<td>-5.4E+08</td>
</tr>
</tbody>
</table>

*** - Significant at 1% level  
** - Significant at 5% level  
* - Significant at 10% level

As long as for example for Russia it is not possible to find the same data as for other countries due to the collapse of the Soviet Union in 1991, we had to use different time period for each county, as it is stated in the head of the table.

For Brazil we can see that among significant variables are: Air transport, registered carrier departures worldwide with coefficient 0.321, Industry, value added (current US$) with coefficient 0.373 and Electric power consumption with a coefficient 0.327. So as we can see from these coefficients the most important factors for Brazil are Transport Infrastructure, Industry value added and Electric power consumption, also it is interesting to see that the values of the coefficients are quite similar.

For Russia we can see that among significant variables are: Industry, value added (current US$) with coefficient 1.219. This is not much, however due to the problems with data collection for Russia in terms of the Soviet Union collapse and small sample it can be explained by the small number degrees of freedom compare to other regressions. At the same time big impact of Industry, value added factor makes sense for Russia, because this country is a big exporter of the energy resources. Also after the Soviet Union collapse the country got a significant demand for
the construction works, what plays a role and the increase of this variable as well?

As for India we can see that among significant variables are: Air transport, registered carrier departures worldwide with coefficient 0.779, Industry, value added (current US$) with coefficient -0.719 and Total natural resources rents (% of GDP) with coefficient 0.536. So they are the most important factors for India.

Here we can see the anomaly with the negative sign of Industry, value added (current US$) variable. This can be explained by the number of factors, among which is the significant development of the chemical industry in India, while this not accounted by this coefficient. Also even though we can see that both FDI and Industry, value added (current US$) experienced the growth since 1975, the growth of the independent variable was not that high. One more reason is the limitations of the model, and positive coefficient for all the other factors in this specific case.

For China we can see that among significant variables are: Inflation with coefficient 0.328. Accordingly, the other explanatory variables does not yield significant results for China and therefore I choose to not make any further interpretations. It is possibly that other factors compared to the chosen variables should be considered in order to explain the variation in FDI over time in China.
5. Conclusion

Based on our findings we can see that during last years the attractiveness of the BRIC countries for the FDI is growing again, after the minor decrease during the crisis 2008. From the data that is used for the OLS regressions we can see that FDI to India and Brazil grow faster than the same numbers for Russia and China. That can be explained both by smaller involvement of the alliance into the crisis events of the world economy and other factors which helped them to keep the attractiveness during the world crisis. Most important out of these factors are strong domestic markets, quality and low price of the labor, natural resources. At the same time the environment for small and medium businesses is these countries is not as friendly as in developed countries, what might be a problem in the future if growing economy will require restructuring.

It is important to underline that even though BRIC countries are having a positive balance of the international investments, the number of investments from BRIC countries into the world is growing rapidly. In some cases the balance is almost zero (Russia). Analysis of the net investments in BRIC countries and its effects on the world and domestic economies shows mostly positive picture of things for the BRIC countries. The common scenario for the alliance is when factory is sold to the international company with a desire of the development and as for the out coming investments, it is usually strategic and expensive assets with an intellectual value and existing markets.

As we had a look at the current situation and background of the problem in chapter 2, it is possible to say that Goldman Sachs with the forecast that has been made a number of years ago is most probably correct with a small fluctuations in terms of the similarity of the growth of the BRIC countries and new members, like South Africa (BRICS). But this can lead to future researches on this topic.

At the same time Goldman Sachs reports did not forecast that countries will become a Union that could be considered as a new economics force at the world map. At the moment the areas of the collaboration are spreading, and Union can officially take in new members. There also were other forecasts as for the volume of the economies of BRIC countries and it’s comparison to the G7 with an assumption that the first one will be able to take the lead no longer then 2025, however as results of this research showing, growth during last years did not exactly match the one that’s been forecasted and so we cannot accept or reject this yet, but this could also be a good topic for the future researches.
Looking back at the question in the abstract which this paper was aiming to answer – “This study aims to find out how did developing economies of Brazil, Russia, India and China, managed to attract FDI and which factors were the most important. Did the government play the important role in this process, or was it just natural due to the high amount of resources, like in Russian and Brazil?” The answer can be found just below, where we make our conclusions based on the results achieved. Paper also analyzed the background and includes the comparison of the results to the previous studies on this topic. Talking about strategy, we can develop it for each special case having a look at the background of the country and finding out is it similar to any of the BRIC countries analyzed above. Variables are based on the previous researches, but can be changed based on the background in order to find a new view on the topic.

Putting together the results achieved we can make the conclusion that for Brazil the most important out of the factors which were included in the paper are: Air transport, registered carrier departures worldwide with coefficient 0.321, Industry, value added (current US$) with coefficient 0.373 and Electric power consumption with a coefficient 0.327. So as we can see from these coefficients the most important factors for Brazil are Transport Infrastructure, Industry value added and Electric power consumption. It is also interesting to see that the values of the coefficients are quite similar. By looking at these we can say that the country’s development is well diversified what can have positive outcomes later, and will not require and emergency decisions on changing the course of the development from one area to a completely different one.

However, Russian data in this model was not as clear as it was for other countries due to the collapse of the Soviet Union. Therefore, the data for Russia was available just since 1992. This changes the degree of freedom in the regression for Russia compare to other countries studied, which impacts the number of significant variables. But in this case it was impossible to collect the data before due to the existence of the Soviet Union. Also the share of exports of commodities increased at a faster pace in the Russia, with less dynamic manufacturing exports.

For India the most important out of the factors which were included in the paper are: Air transport, registered carrier departures worldwide with coefficient 0.779, Industry, value added (current US$) with coefficient -0.719 and Total natural resources rents (% of GDP) with coefficient 0.536.
Here we can see the anomaly with the negative sign of industry, value added (current US$) variable. This can be explained by the number of factors, among which is the significant development of the chemical industry in India, while this is not taken into account by this coefficient. Furthermore, even though we can see that both FDI and industry, value added (current US$) experienced growth since 1975, the growth of the independent variable was not that high. One more reason is the limitations of the model, and positive coefficient for all the other factors in this specific case. India is famous for the IT software services and electronics exports, and this area was well developed there during last decades, so even though the added value might be not high, world’s biggest companies still must have Research and development center over there.

It’s also important to point out some government decisions in India that leaded to the significant development of the IT and electronics sector. ESC is the institute that is responsible for the cooperation and collaboration between different companies and now includes over 2500 of businesses in India.

Great growth of China’s exports is well known, and it was one of the reasons how BRIC countries increased their share in the world’s export market. China and India have managed to change the nature of the production of goods. Previously, the industry has been focused primarily on the production of low-tech products, and now production is focused on high-tech products.

For China we can see that the most important factor in the FDI growth was inflation with coefficient 0.328.

Here it might seem strange to see the positive sign of the inflation coefficient, because that could be interpreted as the positive impact of the inflation on the FDI. However, looking at the data, which we used for the analysis, we can see that we used the difference between each year. As long as a small positive inflation is essential for the economies, that is what we have got in our table and that is why the sign is positive for this coefficient. We can also refer here to the prices for food in China, that were growing quite quickly compare to the other goods, but as long as food is one of the basics needs for all the citizens in a country with the highest population in the world, inflation here plays an important role with connection to the growth of an income in the country and development of the economics.

Comparing the results to the study made by Vinit Ranjan and Gaurav Agrawal in 2011, we can see that both of them show that infrastructure and the stable macroeconomic condition lead to the
increase of the FDI inflow. In my paper we can relate air transport, registered carrier departures worldwide and electric power consumption (kWh) as for the infrastructure factors and inflation as the factor of the macroeconomic stability. As we could see from the results mentioned above, these factors are playing a significant role for each of the BRIC countries, but in this research we can see more detailed analysis of the impact of the specific factor on the countries FDI inflow due to the coming an independent study for each of them.

BRIC alliance showed the world the importance of the development of democracy in the country and setting up suitable environment for the international trade. As a support of this we can consider the result of our regression, where Brazil and India got significant improvement in the infrastructure and significant variables for the registered carrier departures worldwide.

Focusing on cooperation rather than competition, four new world powers have proved that they are capable of changing the paradigm of international relations. In recent years the attitude towards BRIC countries has changed dramatically. This is due to the transformation of the group members from a source of cheap labor and natural resources to the biggest new markets. Also while before export was dominated by cheap and easy to make goods, now it is swapping to the high tech goods.

The favorable geographical position of BRIC gives it additional advantage due to the access to the world's market of resources. Russia - the world's largest exporter of mineral resources (primarily - oil and gas), coal, iron, cobalt, gold and silver. India has strengthened its presence in the information technology sector. China has become a leading manufacturer of mass consumer goods, especially electronic goods. Russia is famous for a variety of fossil and mineral resources such as diamonds, gold, manganese and iron ore. Brazil, today, is one of the leading providers of food and minerals, as well as the country's traditional agriculture.

As for the future researches the results of this paper can be used in terms of comparison of the FDI attractiveness by the change of 5 indicators, that are represented by the independent variables, as it has been done above while talking about the research made by Vinit Ranjan and Gaurav Agrawal in 2011.
It would be also interesting the change of the results, in case of partial substitution of the independent variables, to see if their impact will remain the same as it appeared in this paper.
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27