Country risk and foreign direct investments. Empirical evidence from Romania

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Abstract

Attracting foreign direct investment for a developing country such as Romania is a key driver for economic growth and, thus, for development. But what factors determinates the FDI in Romania? To answer this question, our paper investigates in which extend the country risk influence the foreign direct investment flows in Romania. We had chosen country risk because it gathers in one composite rating the most important variables that asses the political, economic and financial environment of a country. Using data from UNCTAD for foreign direct investment, economic growth, as control variable, and International Country Risk Guide Composite Rating for a period of 21 years, our study shows that country risk ratings have a strong negative impact on FDI in case of Romania.

Introduction

The long term benefits of foreign direct investment on a recipient country depend on the complexity conjunction of factors, ranging from the ability of the destination economy to absorb new technologies, the educational level of local population, to the stability of the political, macroeconomic and institutional framework. The foreign direct investment determinants are important especially from the point of view of the benefits that this kind of flows brings for the host country: knowledge and technology transfer, innovation diffusion, increase in productivity and competition.

The empirical literature on FDI determinants can be split in half: one part analysis the gravity factors and another policy related factors. In the category of gravity factors are included market size and the proximity of the host country to the source country; many empirical studies showing that theory explain a big part of FDI flows. Policy related factors bring on the table overall macroeconomic stability, trade policy (trade costs, openness degree), fiscal policies (average taxation rate or the fiscal burden, tax incentives), labour policies (labour costs and skills), the degree of regional integration, infrastructure and institutions. All these factors can be found in host country risk levels.

Dunning (2002), identifies three main categories of host country determinants of foreign direct investment:
- The policy framework for FDI, which includes economic and political stability, rules regarding operations and entry, treatment of foreign affiliates, international agreements on FDI and trade policy, privatization, industrial and tax policy;
- Economic determinants, such as market size and growth, market structure and specificities, rental and land costs, prices of raw materials and labour, physical infrastructure, other developed managerial or entrepreneurial competencies;

- Business facilitation, which includes investment promotion schemes and incentives, protection of property rights or infrastructure of support services such as banking, legal and accountancy services.

The aim of our paper is to measure the impact of country risk on foreign direct investments flows in Romania for a period of 21 years. Using principal component analysis we investigate the relation between the variables analyzed

FDI and country risk

Country risk is the potentially adverse impact of a country`s environment on an multinational company cash flows. Especially when we speak about making foreign direct investments it is necessary to take into consideration the risk due to investment being in a foreign country.

The term „country risk" is often used interchangeably with the terms political risk and sovereign risk. However, country risk is really a broader concept than either of the other two including them as specially cases. Country risk involves the possibility of losses due to country-specific economic, political and social events, therefore all political risk is country risk, but not all country risk is political risk. Sovereign risk involves the possibility of losses on claims to foreign governments or government agencies over bonds and is not the primary concern of Multinational Corporation.

A direct investment faces different types of country risk: those related with economic factors, with the possibility of confiscation (government takeover without any compensation) or expropriation (which refers to a government takeover with compensation, which at times can be fairly calculated). As well there are other political/social risks as wars, revolutions and insurrections. Also country risk may materialize in the form of currency inconvertibility and restriction on the repatriation of income.

The country risk analysis is important for a number of reasons. First, the multinational company could use country risk for avoiding investment in countries with excessive risk. Also it can be used to monitor countries in which the multinational companies have already engaged in international activity.

For foreign investors, the primary concern about country risk in host countries is the adverse impact it may have on a firm's profitability. Butler & Joaquin (1998) states that this impact can have as origin the discriminatory policies of governments, the expropriation of assets and other political events that may disrupt business operations, damage assets or endanger employees. Looking at the studies on developing and emerging markets, Faria and Mauro (2004) concludes that institutional quality, sound macroeconomics, natural resources, and educational levels stimulate foreign direct investment. Knack & Keefer (1995), Mauro (1995) and Wei (2000) found also that institutional quality represent a driver of investment and growth. Measuring country risk trough credit risk for sovereign debt, Albuquerque (2000) states that the riskier is the country the higher share of FDI has in total inflows.

FDI and economic growth

When we speak about the effects of economic growth on FDI we must highlight that empirical studies have found conflicting results on this manner. Borensztein et al. (1998) test the effect of FDI on economic growth in a cross-country regression framework, utilizing data on FDI

flows from industrial countries to 69 developing countries over two decades. Their results suggest the following conclusions:

- FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than does domestic investment;
- For FDI to produce higher productivity than domestic investment, the host country must have a minimum threshold stock of human capital.
- FDI has the effect of increasing total investment in the economy more than proportionately, which suggests the predominance of complementarily effects with domestic firms.

At a macroeconomic level, Borensztein, De Gregorio and Lee (1998) argue that FDI has a positive role for FDI in generating economic growth when the country has a highly educated workforce that allows it to exploit FDI spillovers., especially in particular environments. Theories on economic growth and development focus on the increase in real per capita income and relate this increase to certain major factors such as capital accumulation, population growth, technological progress and the discovery of new natural resources.

FDI in Romania

After 1989, the FDI inflows evolution in Romania highly depended on the privatisation process, which was very much delayed. In the early `90, Romanian government avoided to lunch radical reforms, which allowed unprofitable state owned companies to continue their inefficient activities. We may consider these hesitating attitudes a serious barrier for foreign investors searching for business opportunities in Romania. In the late 1990 and especially after 2000, the situation has started to improve, Romania becoming an attractive destination for foreign direct investment.

As figure 1 shows there is a strong correlation between the inflows of foreign direct investment and the registration of foreign companies on National Office of Commerce Register.
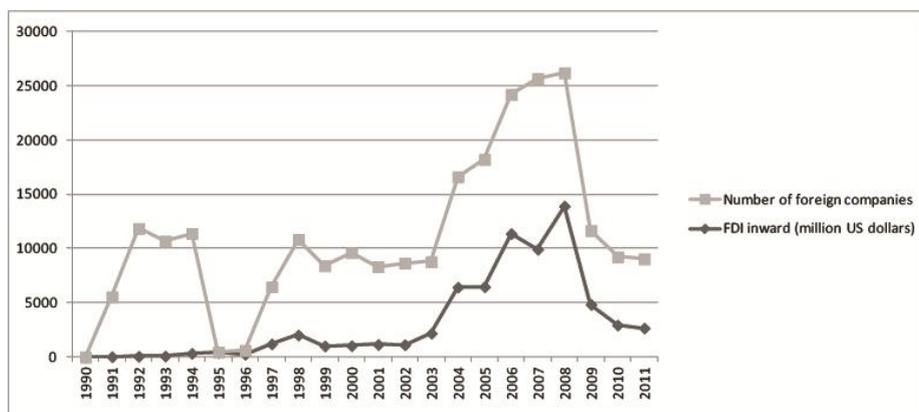
Figure 1. The evolution of FDI and the number of foreign companies in Romania
Source: UNCTAD, Romanian National Office of Commerce Register

Today, the Romanian government policy toward foreign direct investment is very much in favour of these kinds of capital inflows, promoting the country as a destination for Greenfield investment projects. But, despite the government`s encouraging position on FDI and country`s

highly skilled work force and EU membership, Romanian FDI has underperformed the rest of the new EU accession states in recent years.

The main problem, in our opinion, are the frequent changes in the country`s legislative and regulatory framework. The slow approval process for major investment deals, corruption and domestic political ructions are the factors which deter the foreign direct investors from Romania.

Romania ranked 75th of 182 countries in the 2011 Transparency International`s Corruptions Perception Index, placing it third to last among all the EU members and a drop of six places from it results the year before. While the legal framework concerning corrupt practices fits to EU standards, the actual enforcement of anti-corruption legislation remains week. As a result, bribery is still common place, especially at the administrative level. Denmark comes top as the least corrupt nation, with only Greece (80th) and Bulgaria (86th) showing poorer performance than Romania within the EU.

Besides that Romania maintains a favourable tax regime for business operating in the country, the government establishing a flat income tax rate that is applied to both private households and corporations. At 16%, this rate is competitive for the region as a whole, though is above regional peer Bulgaria which has set its flat rate at 10%.

Table 1. Flat taxe regime

Country	Rate %	Year of enactment
Estonia	21	1994
Latvia	25	1995
Russia	13	2001
Slovakia	19	2004
Ukraine	15	2004
Romania	16	2005
Georgia	12	2005
Macedonia	10	2007
Albania	10	2008
Czech Republic	15	2008
Bulgaria	10	2008

Source: Different national reports

Investments are granted facilities, in accordance with both government policy and community law on state subsidies, if they contribute to the fulfilment of the following objectives:
- Regional development and cohesion;
- Environment protection and depollution;
- Improvements in energy efficiency and/or production and use of renewable energies;
- Research and innovation enhancement;
- Job creation and human resources training.

Method

Our research uses principal component analysis (PCA) as method for analyzing the data. According to Abdi and Lynne (2010, p. 433) PCA is a „multivariate technique that analyzes a data

table in which observations are described by several inter-correlated quantitative dependent variables. Its goal is to extract the important information from the table, to represent it as a set of new orthogonal variables called principal components, and to display the pattern of similarity of the observations and of the variables as points in maps".

The goals of PCA (Abdi and Lynne (2010)) are to (a) extract the most important information from the data table, (b) compress the size of the data set by keeping only this important information, (c) simplify the description of the data set, and (d) analyze the structure of the observations and the variables.

The data will be analyzed through SPSS program.

Empirical model: $ln\ fdi_{i,t} = a + \beta_1\ GDP_{i,t-1} + \beta_2\ country\_risk_{i,t-1} + \mu + \varepsilon_{i,t}$

where i is the country subscript, t is the time subscript, β_s are unknown parameters to be estimated, $\varepsilon_{i,t}$ is the usual random disturbance term. All explanatory variables are lagged one year in order to avoid simultaneity with the dependent variable and taking into account that decisions to invest abroad take time.

The variables used in our research are presented in the table below.

Table 2. Description of the variables

		Definition	Measure	Source	Observed
Dependent variable	*FDI*	*According with OECD definition, Foreign Direct Investment* (FDI) is a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (*direct investor*) in an enterprise (*direct investment enterprise*) that is resident in an economy other than that of the direct investor. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is the statistical evidence of such a relationship	Millions dollars US	UNCTAD FDI statistics database http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx?sRF_ActivePath=P,5,27&sRF_Expanded=,P,5,27	1990-2011
Independent variables	GDP - proxy for market potential	Real growth GDP rate	%	UNCTAD statistics	1990-2011
	Country risk Composite	The *International Country Risk Guide* (*ICRG*) rating comprises 22 variables in three subcategories of risk: political, financial, and economic. A separate index is created for each of the subcategories. The	Scale 0-100 where 0- very high risk, 100 – very low risk	International Country Risk Guide (ICRG)	1990-2011

		Political Risk index is based on 100 points, Financial Risk on 50 points, and Economic Risk on 50 points. The total points from the three indices are divided by two to produce the weights for inclusion in the composite country risk score.		

Results

Looking at the descriptive statistics (table 3), we can observe that the mean GDP growth for the period is 1,12%, while the mean of country risk is approx. 64 of 100 (where 100 – is a very low risk country), Romania being considered, in average, for a period of 21 years, a moderate risk country according with ICRG methodology. Still the mean of foreign direct investment inward is only approx. 1462 millions USD, a very low average for other countries with a moderate risk climate.

Table 3. Descriptive Statistics

	Mean	Std. Deviation	N
FDI	7.1625	1.66950	21
Economic_growth	1.1271	6.45989	21
Country_risk	63.9787	5.69309	21

Source: author calculation

Table 4. Correlation Matrix

		FDI	Economic_growth	Country_risk
Pearson Correlation	FDI	1.000	.597	.851
	Economic_growth	.597	1.000	.752
	Country_risk	.851	.752	1.000
Sig. (1-tailed)	FDI	.	.002	.000
	Economic_growth	.002	.	.000
	Country_risk	.000	.000	.
N	FDI	21	21	21
	Economic_growth	21	21	21
	Country_risk	21	21	21

Source: author calculation

Table 4 shows a strong correlation between the variables analyzed. So, between foreign direct investment and country risk rating is a direct strong correlation (Pearson coefficient is .851 and Sig.<.005). This finding confirm our hypothesis that a higher risk deter inwards of FDI. Also, we can see a moderate and significant correlation between GDP growth and foreign direct investment flows (Pearson coefficient is .597 and Sig.<.005), due to, in our opinion, the frequent periods of crises that Romanian economy gone through in the last 21 years reflected in the insignificant or zero economic growth registered in many of the years submitted to our analysis.

According to table 5, the chosen method is adequate taking into consideration the results of KMO test (>.600) and significant (Sig.<.005).

Table 5. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.666
	Approx. Chi-Square	22.520
Bartlett's Test of Sphericity	Df	3
	Sig.	.000
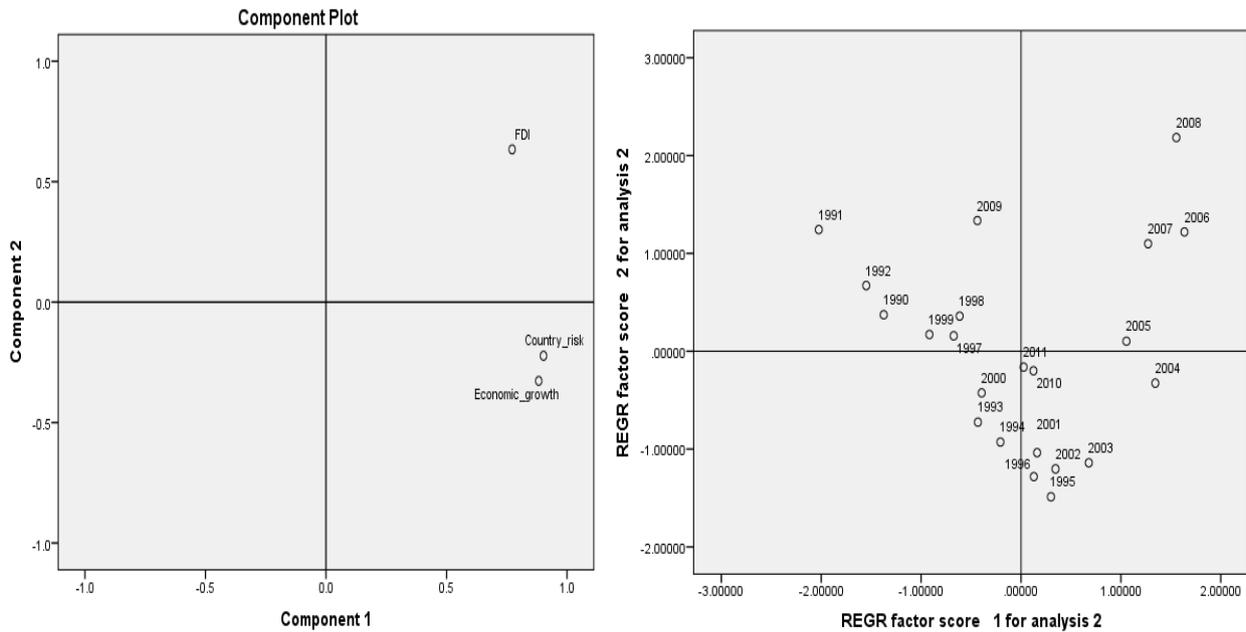
Figure 2. Results of principal component analysis
Source: author calculation using SPSS 17 program

The result shows a direct relation between foreign direct investment and country risk (meaning a negative influence of country risk (0 – high risk and 100 – low risk) on foreign direct investment). So, we are looking at three distinct period of evolution of our variables: 1990-1992, 1997-1999 and 2009; 1993-1996, 2000-2003, 2010-2011; 2005-2008

Period 1990-1992, 1997-1999 and 2009 was characterized by major economic crises in Romanian activity. Political problems, the perceived corruption and always changing legislative environment reflected in the country risk ratings; all had a major influence on the foreign direct investment inflows.

The first significant FDI inflows in the Romanian economy are registered in 1992, doubling the previous year level. If FDI flows were almost inexistent in 1990, the positive change was brought by the launch in 1992 of the small scale privatization projects. The evolution of FDI flows in this period was influenced by: the insignificant or zero economic growth, the non-investment grade that Romania received from country risk specialized institutions, the high inflation rate, the regulatory and fiscal system volatility, the inefficient and non-transparent administrative structures and the insufficient promotion of Romania as investment destination.

If the previous period analyzed represented the years of economic crises, the second period 1993-1996, 2000-2003 and 2010-2011 is characterized by the reforms taken by the government to ensure getting the country out of the crises and by the improvement of country risk ratings.
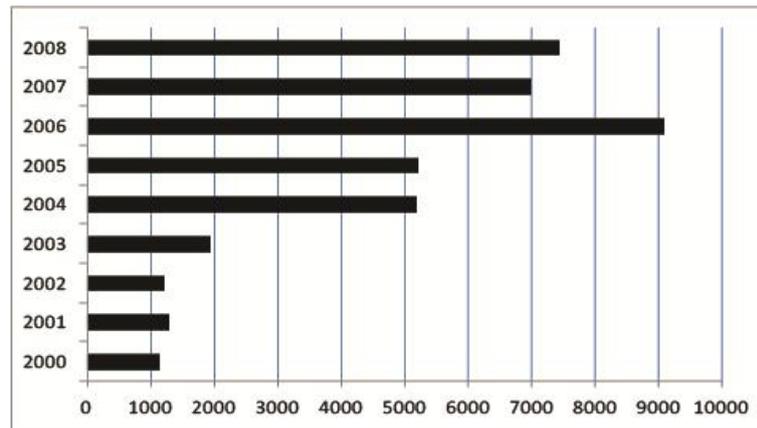
Figure 3. Foreign direct investment inflows in Romania in 2000-2008
Source: UNCTADstat

As figure 3 shows after 2002 the FDI pattern changed substantially. This is due to the improvement in the business environment, GDP growth, the decreasing inflation, the accelerated privatization process and the consolidation of capital markets and banking sector.

Thereby, the effects of these reforms are present in the period 2005-2008. In this period, the GDP growth rate was greater than 5%, the political environment was stable and FDI flows reached the highest value in the post-1990 history (see figure 3). It must be mentioned that Romania became a member of the European Union on January 1, 2007. Romania benefits from the EU accession that offers a harmonization of capital market regulations, taxation and accounting rules that attracted the foreign direct investors.

The levels of foreign direct investment registered in this period are due to the conclusion of several privatization contracts. Thereby, the Romanian Government has privatized most of the sectors of the economy. The largest privatization deals concluded are: Banca Comercială Română (sold to Erste Bank at the end of 2005), Petrom (the national oil company, sold to OMV in 2004), The signing of the privatization contracts for carmaker Automobile Craiova – with Ford, and for Electroputere Craiova - with Saudi Arabia's Al Arrab Contracting Company Limited respectively, were major events in the economy in 2007.

Conclusions

We examine whether additional FDI inflows are triggered by improving the level of country risk, while we use proxy for market potential the rate of economic growth as a control variable. The results obtained from our principal component analyze show that country risk has an important negative role in attracting more foreign direct investments, meaning that a rise in the perceived level of country risk determinates a suppression of FDI.

Therefore, it can be concluded that Romanian government should follow a range of interrelated policies in order to attract greater inflows of foreign direct investment, which is of relevance when it comes to economic development.

Looking at the strengths of Romania in attracting foreign direct investments we can mention the relatively large domestic market and a still competitive labour force corroborated with the integration in the European Union witch improved the economic outlook of the country. Also, in terms of country risk, the low level of public sector debt has limited sovereign risk.

Main weaknesses are grouped around the political environment, respectively in the levels of political risk. Here, we mention the government`s pro-cyclical economic policy that raised the current account deficit which has reflected also in high inflation rates. Also, the political context has not been conducive to progress on reforms at any level, the relation between the private sector and the government departments remains difficult. While the overall business environment is improving, it is still subject to slow and incoherent administrative and judicial problems.

Acknowledgements

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