ON THE RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENTS AND ECONOMIC GROWTH. ROMANIA IN TIMES OF CRISIS

Oana-Ramona SOCOLIUC∗
Andreea-Oana IACOBUTA†
Delia-Elena DIACONASU‡

Abstract: Foreign direct investments might be perceived as the engine of growth and economic development for both developed and developing economies. For Romania, a country with a closed regime in the past, their role is even more important in promoting prosperity and social wealth. In the context of EU integration, Romania had benefited from a large amount of foreign direct investments coming especially from the major European economies, but such ascending trend with positive implications towards economic and social areas was all at once interrupted by the recent financial crisis. The deep recession in Romania along with numerous internal disequilibria had a negative impact on those who want to invest in this perimeter. In such circumstances the purpose of this paper is to investigate the effects of the crisis on FDI flows and consequently, on Romania’s development potential using a Granger causality analysis. The results highlight that FDI inflows have a prominent benefic influence on economic growth and that Romanian economic climate is not ready to ensure the bidirectional nexus.

Keywords: foreign direct investment; economic growth; crisis

JEL Classification: F210; G010

INTRODUCTION

The appearance of foreign direct investments overlaps with the period of great geographical discoveries. Being strongly influenced by the expansion of international transactions, in the last decades foreign direct investments followed a prominent upward trend becoming a world-wide phenomenon. The existing body of literature emphasize two conflicting perspectives when the relationship between foreign direct investments and economic growth is approached. On the one hand, there are authors that underline the positive influence of foreign direct investments (FDI) on the economic outcomes of the countries. Given the know-how and permanent focus on technological progress, such investments have an enormous potential to enhance productivity growth in terms of quality and quantity in the host countries. Consequently, they will generate an increase of employment rate and also an improvement of local business enterprises competitiveness, boosting, thus, the entire economy.

∗ PhD and Adjunct Professor in Economics at the Faculty of Economics and Business Administration within Alexandru Ioan Cuza University of Iaşi, Romania; e-mail: oanasocoliuc@gmail.com.
† Lecturer PhD at the Faculty of Economics and Business Administration within Alexandru Ioan Cuza University of Iaşi, Romania, e-mail: andreea_iacobuta@yahoo.com.
‡ PhD and Adjunct Professor in Finance at the Faculty of Economics and Business Administration within Alexandru Ioan Cuza University of Iaşi, Romania; e-mail: delia_diaconasu@yahoo.com.
On the other hand, there are voices that defend a pessimist viewpoint related to the impact of foreign direct investments on the potential of economic growth of a host country. Such positions present the other side of the investment process, nominating the fact that, sometimes, the presence of a foreign company on the local market might promote a harmful competition for the indigenous firms, ruining a part of them. Furthermore, through repatriation of profits the balance of payments of the host country might be highly destabilised, etc.

Undoubtedly, the dominant part of the literature is focusing on the positive implications of FDI on economic growth. Their impact is even more important when developing countries are addressed. Romania, a developing nation member of European Community, has benefited from a large amount of FDI inflows after the moment of accession, in 2007. The membership to European Union (EU) illustrated the necessary stability guarantee for foreign investors. Even though Romania has an enormous investment potential, part of it remained unexplored after the crisis. In fact, this is the main reason why FDI inflows captured in 2007 did not completely enhanced the expected outcomes. The debut of the crisis, in autumn of 2008 detached entire economy from the optimistic growth trend. During 2008-2009 the FDI inflows followed a sharp decline of more than 45%. Unfortunately, some of the crisis repercussions where reflected not only in the economic decline and a lower level of attracted investments, but also in the migration of existing foreign investors outside the country. In such context, the purpose of this paper is to investigate the impact of FDI inflows on Romanian economy, taking into consideration both their advantages and potential disadvantages.

The motivation of study is provided by contradictory researches in this field. Our results generally support the unidirectional causality that comes from FDI to GDP growth. The moment of crisis illustrate a turning point for Romanian economy. After more than six years of crisis and a serious economic recession, Romania need to improve its economic and political climate in order to benefit from new FDI inflows and transform them into a source of further economic expansion.

The rest of paper proceeds as follows. Section 2 offers a description of the literature review. Section 3 presents the nexus FDI – economic growth for the particular case of Romanian economy in hard times of crises and afterwards. Section 4 emphasizes the hypothesis, the data and the methodology used. Section 5 reports our empirical results. Section 6 concludes.

1. LITERATURE REVIEW

Despite numerous contributions of economists oriented towards defining the concept of foreign direct investment, it definitely remains a gravity centre of economic analyses. The World Bank
offered a generally agreed description, according to which FDI illustrates a form of investment which allows investor to obtain a minimum share of 10% of voting stock of the host country firm (World Bank, 1996). Moreover, there are definitions which highlight the idea of capital or assets transfer (Jones and Wren, 2006). Authors such as Paul Krugman and Edward Graham emphasize the idea of ownership of certain assets which allows control over them (Graham and Krugman, 1989). OECD points out another interesting perspective of interpreting foreign direct investments according to which this category of investments is projected on a long period of time given the main objective of satisfying the long-term interests of the direct investor (OECD, 1996, p.7).

From a formal perspective, as economic theory emphasizes, foreign direct investments might be classified in three separate forms, illustrated in Figure 1, below:

![Figure 1 – Foreign direct investment typology](source)

The first category, greenfield investments, refers to the case in which the investor establishes the production or the distribution system in the host country. Such activities are welcome by recipient state given the fact that it generate new work places and increase the added value of the final products. Theory also nominates another category, the brownfield investments, referring to the acquisition of an existing enterprise which will be significantly improved in terms of equipment and production lines, in order to make it part of the entire production process. These practices offer to investor the major advantage of rapid market access and to the host country a support for the economic prosperity.

Regarding the second type of FDI, studies in this field point out that acquisitions are encouraged especially when the investor is facing with an industry that is recording a slow pace growth and the economic climate is characterised by market imperfections, even financial crises. Usually, those multinational companies which already have subsidiaries in the host country prefer to do local
acquisitions because they have the advantage of knowing the market (Mezer, and Estrin, 1998). In this case investors overcome the crisis barriers and enhance an upward productivity trend.

The last form of FDI implies a partnership between a foreign company and a local enterprise, even governmental institutions of the host nation. Obviously, the foreign partner offers the technical expertise and capital, while the local partner contributes with useful knowledge related to bureaucracy, local laws or regulations. Some authors argue that strategic alliances are favoured by market dimension, the pace of technological progress, the interest rate of the host country, cultural discrepancies, scale economies, or the degree of economic freedom, etc (Buckley and Casson, 2000). Regardless of investment type, each of the three categories generates a common outcome, economic and social benefits created both at the firm and also at the regional level of the host country. Most often, companies prefer to relocate production when external environment conditions are more favourable than those of the resident country. We might therefore admit that FDI illustrate a way of territorial expansion of the firms (Dunning, 2001).

When addressing the relationship between foreign direct investments and economic growth of the nations, the existing body of literature provides two antagonistic perspectives. On the one hand, there are studies underlying the positive impact of attracted FDI flows on economic outcome of the host country. Furthermore, we might say that given the numerous generated advantages at the level of the host country, among researchers, even policymakers exist a widespread belief that such inflows have the power to boost national economy. According to Richard Caves, the activity of a multinational company creates several advantages, such as: a higher degree of employment, and thus, a higher productivity level, an increase of the capital stock, technological transfer and know-how (Caves, 1996). On the same wavelength we find Findlay (1978), De Mello (1999) Rappaport (2000) or De Gregorio (2003), that also highlights the positive impact of FDI on economic growth. They point out the general improvement of firm’s productivity, from a general perspective which includes both: companies which benefit from FDI and the rest of the local enterprises. Furthermore, as stressed by Shan (2002), if these foreign investment flows are oriented towards production sectors, industrial sector mainly, they have an outstanding contribution to exports expansion. Such investments also have a positive effect on local business enterprises, helping them to access international markets (Aitken, Hanson and Harrison, 1997).

However, the FDI-economic growth nexus is not unanimous supported by economic researchers. Some of them offer an antagonistic perspective, according to which there are also some adverse economic and social effects when such topic is approached. In the view of Stephen Hymer (1993), multinational corporations take advantage of their higher technologies, know-how and
abundant financial resources in order to acquire a monopoly position. This illustrates the so-called theory of monopoly or oligopoly advantage (Hymer, 1993). Moreover, as Kindlerberger point out, the monopoly advantages of foreign investors are generated by several imperfections, such as: goods market imperfections illustrated by products differentiation and marketing techniques, production factors market imperfections, translated by know-how, access to the capital market and management practices, and the mass production which supports vertical integration and enhance efficiency (Kindlerberger, 1969).

Razin, Sadka and Yuen (1999) bring into the light an interesting aspect related to informational asymmetry which definitely favours multinational companies and encourages, thus, the process of over-investment. In such circumstances, as Stiglitz stresses, even though FDI inflows are not that harmful to the economic growth potential of the host nation, there is a profound need for a clear and transparent regulatory framework in order to limit speculative activities and consequently, the instability and the higher uncertainty (Stiglitz, 2000).

Other studies provided by Blomstrom, Lipsey and Zejan (1992) and Balasubramanyam, Salisu and Sapsford (1996) suggest that the effects of FDI inflows are different from a country to another. On the one hand, the former group of scholars point out that foreign direct investment enhance a higher rate of economic growth in developed economies than in developing ones. On the other hand, the latter authors emphasize that the same positive influence seem to be more prominent in nations focused on export promotion, than in countries oriented towards import substitution (Balasubramanyam, Salisu and Sapsford, 1996).

The same perspective of heterogeneous results of FDI on economic growth is also highlighted by researches which take into consideration the institutional quality of the host country. From such viewpoint, FDI ability to generate positive economic outcomes is conditioned by the effectiveness of the institutional framework. As Douglass North emphasize, the quality of the rules of the game might be perceived as a sort of filter which multiplies or, on the contrary, blocks the beneficial contribution of wealth determinants (North, 1990). According to Dani Rodrik or Daron Acemoglu, countries dominated by a poor institutional quality, illustrated by bureaucracy, higher corruption, unclear framework of property rights, frequent regulation changes and so on, are confronted with a lower capacity to attract investments. Usually, these nations are characterised by a lower productivity level, as well as a modest rate of economic growth (Rodrik, Subramanian and Trebbi, 2002, Acemoglu, Johnson and Robinson, 2001). Furthermore, as highlighted by Buchanan, Le and Rishi (2012), the quality of institutional framework really matters to foreign direct investments. The quality of governance and the rules of the game which guide human behaviour within the host country have a
great influence of FDI volatility. In other terms, when institutions are not functioning well, uncertainty intensifies and deeply harms the investment relations, including FDI inflows. Obviously, in such unfavourable circumstances, the volume of attracted foreign direct investments will be lower; production will decrease limiting, thus, the potential of economic growth.

Most developing countries suffer from the so-called “institutional disease”. For the particular case of transition economies this is the determinant of poor economic performances. Unfortunately, Romania is not an exception to the rule, even though it is an EU member. A detailed analysis of Romania’s economic dynamics in times of crisis and afterwards and FDI contribution in this respect will be presented in the following section.

2. THE FDI – ECONOMIC GROWTH NEXUS IN ROMANIA

2.1. The situation before the debut of the crisis

As an ex-soviet country, Romania suffered a gradual metamorphosis from the centrally-planned to the market oriented economic system. The transformation period was long and difficult. Consequently, the FDI inflows followed the same path. From the debut of transition process, Romanian economy was confronted with numerous internal disequilibria which delayed the attraction of foreign capital, a necessary resource and support for internal reorganisation and the enhancement of economic expansion. Within Central and Eastern European region, nations like Poland, the Czech Republic or Hungary always acquired the highest volumes of FDI inflows. On the contrary, Romania and Bulgaria remained at the end of the list (UNCTAD, 1995).

As results of Romania’s accession to NATO in 2004 and the improvement of prospects related to a further EU membership, the FDI attracted flows almost doubled compared to 2003, reaching a maximum level of 4.2 billion € (Romanian Agency for Foreign Direct Investments, 2004). After 2004 the trend remained positive with a significant improvement. National privatisation of some important companies like Distrigaz Sud, Distrigaz Nord, Electrica Oltenia and Electrica Moldova, respectively, brought significant amount of foreign capital. According to Ernst & Young (2006), during 2001-2005, Romania was the leader of South-East Europe, with a share of 40% the total FDI amount. Gradually, Romania’s advantages in terms of FDI attractiveness ability have become increasingly prominent. There are multiple factors which encouraged the expansion of FDI in 2006 at a level of 9.1 billion € (Romanian Agency for Foreign Investments, 2006), as illustrated in Figure 2 below:
The record value of attracted foreign investments for 2006 might be explained in the light of Erste Bank acquisition of 36.8% of Romanian Commercial Bank shares, estimated at 2.2 billion €. Regarding the binomial relationship between FDI and economic growth during the analysed period, facts highlight that it was a positive one, as revealed in Figure 3 below:

As we might observe, the increasing share of FDI in GDP during 2004-2006 followed the same trend with the one of GDP growth rate, highlighting their benefic contribution in this regard. The trend remained positive during 2007, when the moment of EU accession illustrated an additional guarantee for foreign investors. The enactment of the acquis communautaire provided the certainty
that practices of Romanian business will improve by ameliorating the performance of their policies oriented towards FDI attractiveness. From this perspective the liberalisation of the capital market had an important contribution in increasing the FDI inflows. Consequently, in 2007, Romania attracted FDI estimated at 7.1 billion € (National Bank of Romania, 2007). As highlighted in Figure 4, the evolution of FDI inflows after Romania’s accession to NATO was positive.

Figure 4 – The evolution of FDI in Romania between 2004-2007 (billion €)

Despite such optimistic trend, Romania illustrates a country in which the positive impact of FDI inflows on economic development is often blurred. Unfortunately, the unpredictable market fluctuations but especially institutional fragility remains responsible for the situation (Rodrik, 1999). In such context the higher FDI inflows attracted in 2007 and 2008 did not have the necessary time to generate a positive contribution to local economic outcomes.

2.2. The situation after the moment of crisis

The outstanding expansion from 2007-2008 was going to announce the major decline of the coming period. The collapse of real estate and stock markets, the severe contraction of the trade flows and foreign direct investments, respectively, become general characteristics of the main part of the world economy. In such inauspicious conditions, Romania was also severely affected. The volume of attracted FDI followed a sharp reduction of more than 50% in 2009 (Poulsen and Hufbauer, 2011). Attempting to find reasonable explanation to such massive decline, we might nominate two elements.
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First, the immediate effects of global turbulences manifested through a significant reduction of the liquidity available to multinational corporations. The situation of these companies was worsened by the new credit conditions which tightened drastically. Therefore, their investment capacity was considerably reduced.

Second, taking into consideration that the economic situation of developed economies from where these foreign investors are coming from worsened noticeably, the interest of multinational companies to invest mainly in emerging nations has profoundly declined.

The crisis generated numerous distortions within economic and social area. From the perspective of attracted FDI volumes, the situation is more than illustrative. A detailed perspective related to the FDI evolution in hard times of crisis is provided in Figure 5.

Figure 5 – FDI inflows evolution during 2009-2013 (billion €)

As pointed out, during 2009 – 2011 the evolution of FDI inflows was negative, in the sense of a massive reduction. This was the critical period accentuated by internal economic disequilibria and the lack of resources in order to temper the recession. As a consequence, in 2008 – 2009 mergers and acquisitions were affected the most, suffering a reduction of 66% (World Trade Organization, 2009). Greenfield projects have been delayed and subsidiaries financing of foreign companies has been reduced to the minimum. Thus, in 2009 the FDI suffered a severe contraction from 9.496 tp 3.488 billion € (Business Monitor International, 2009). In such circumstances, their capacity to encourage economic growth was almost inexistent. National economic was deeply harmed by the crisis, and FDI alone, without a substantial support came from the government were insufficient to restore equilibrium.
The situation remained unchanged even for 2010, when Romania’s indicators of investment attractiveness were deeply affected. The 9% current account deficit, associated with external debt of more than 8.27%, the budgetary deficit or inflation rate of almost 7% illustrated meaningful criteria which determined foreign investor to avoid Romania. Given the situation of 2011, when FDI inflows continued to decrease, reaching a minimum level of 1.815 billion €, their potential impact on economic growth was also significantly reduced. Considering the general economic framework and low FDI inflows, in particular, during this period, national production decreased. Exports were highly affected determining the worsening of trade balance account. People were fired and unemployment rate rose significantly.

The situation has improved in 2012 and 2013, as a benefic consequence of foreign aid came from IMF and EU. In this time span, FDI attracted volumes increased to 2.138 billion € in 2012, reaching a maximum level of 2.7 billion € in 2013. Taking into consideration the upward trend followed by FDI inflows, there are signals of a notable improvement in the future. If such growth of foreign investments will be accompanied by a healthy and stable economic climate, deprived of uncertainty higher transaction costs and institutional fragility, Romania will definitely have the opportunity to experiment the economic progress and social prosperity.

For now, the economic area is not sufficiently well recovered as to enhance new waves of FDI inflows. Furthermore, it is not ready to provide the auspicious background for those investments as to attain economic and social benefits on long-term perspective.

3. DATA AND METHODOLOGY

The variables taken into consideration for the analysis are:

- GDP growth rate;
- the volume of attracted FDI;
- GDP in absolute value.

Using the latter two variables we calculated the quarterly FDI share in GDP for the entire period. The motivation for choosing this sample might be explained in the light of several challenges brought by the crisis. Our purpose was to investigate the nexus between attracted FDI and economic growth of Romania after EU accession, but particularly, in the context of the crisis phenomenon.

We use quarterly frequency data expressed in European currency, €. The data was collected from Eurostat, for GDP growth rate and GDP in absolute values and National Bank of Romania for FDI inflows, the sample period being from January 2007 to December 2013.
Numerous papers investigate the existence of a causality relationship among FDI share in GDP and the level of economic growth of the host country. In such circumstances the present study formulates and tests the following hypotheses concerning the causality between the selected variables:

- **“Unidirectional causality” hypothesis**: increasing FDI share in GDP is positively associated with higher level of GDP growth rate. According to this view, there exist a nexus from the FDI to the economic growth of the host country.

- **“Bidirectional causality” hypothesis**: increasing FDI share in GDP is positively associated with higher level of GDP growth rate and vice versa, an increasing GDP growth rate is positively associated with higher level of FDI share in GDP.

In order to examine the relationship between FDI share in GDP and economic growth we use Granger causality method. In order to employ a Granger-causality test data series must be stationary. In this respect, we perform the Augmented Dickey-Fuller (ADF) tests on the transformed series. For making them stationary a first difference was applied for both series.

Granger causality analysis offers the possibility to investigate if there is any causal relationship between two selected time series. Generally, such causality assumes that a time series $X_t$ Granger-causes another time series $Y_t$ if this latter time series, $Y_t$, can be better predicted on the basis of past values of $X_t$ than historical values of $Y_t$. In this article, we suppose that $Y_t$ and $X_t$ are FDI share in GDP and GDP growth rate, respectively. In order to test the causal relations between the two series, the following bivariate autoregression is used:

$$
\begin{align*}
\text{GDP}_t &= \alpha_0 + \sum_{k=1}^{n} \alpha_k \text{GDP}_{t-k} + \sum_{k=1}^{n} \beta_k \text{FDI}_{t-k} + u_t \\
\text{FDI}_t &= \gamma_0 + \sum_{k=1}^{n} \gamma_k \text{FDI}_{t-k} + \sum_{k=1}^{n} \theta_k \text{GDP}_{t-k} + u_t
\end{align*}
$$

where: $\alpha_0$ and $\gamma_0$ are constants, $\alpha_k, \beta_k, \gamma_k, \theta_k$ are parameters, and $u_t$ are uncorrelated disturbance terms with zero means and finite variances.

We reject the null hypothesis according to which GDP$_t$ does not Granger-cause FDI$_t$ if coefficients from the former equation significantly differ from zero. There is a bi-directional causality relation when both, $\alpha_k$ and $\beta_k$ coefficients are significantly different from zero.
4. EMPIRICAL RESULTS

Table 1 below displays the results for Granger-causality test. The empirical results from Granger-causality tests highlight, a unidirectional relation between FDI share in GDP and economic growth rate of Romania.

**Table 1 - Granger Causality Results**

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGDP does not Granger Cause NFdi</td>
<td>1.02560</td>
</tr>
<tr>
<td>NFdi does not Granger Cause NGDP</td>
<td>3.69862*</td>
</tr>
</tbody>
</table>

Note: statistically significant at 5%.
Source: Own processing data in EViews 7.

As results emphasise, we validate the unidirectional causality coming from FDI share of GDP to GDP growth rate. Furthermore, we invalidate our second hypothesis of bidirectional linkage. Even though the bidirectional relationship was validated by the economic theory, for the particular case of Romania, such fact might be explained in the light of institutional fragility and especially the higher uncertainty and general instability which governed Romanian economy in the last period of time. Crisis consequences were significant and hard to remove. Romanian economy was severely detached from the optimistic growth trend at the end of 2008, and since then the revival of economic activity remained a permanent challenge. The loans provided by the International Monetary Fund (IMF), the World Bank or European Union had repercussions in terms of a higher tax burden and salary reduction. As economic analysts pointed out, economic recovery for Romania followed the form of the L letter, highlighting that a relatively long period of time will be needed in order to restore the economic activity on an upward trend (European Commission, n.d.).

Another reason for the unexpected result, the lack of a bidirectional relationship between the FDI share in GDP and real GDP growth rate, can be the limited number of observations taken into account. Our analysis was based on quarterly frequency data and the time span selected for the analysis was a short one, 2007-2013, precisely for emphasising the negative crisis effects. This illustrates, in our perspective, a limitation of our study.
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CONCLUSIONS

Foreign direct investments are an important ally of developing nations, in which capital accumulation is not sufficient in order to boost production, national competitiveness and thus, economic growth. Their role becomes even more important when transition economies are addressed. Here, past collectivist experiences within a closed economic regime illustrate a major obstacle to economic prosperity and wealth. For Romania, as a representative country for emerging nations with a soviet experience, one of the greatest challenges, so far, under capitalism was the reconstruction of the institutional framework. In absence of clear property rights, an effective rule of law able to provide stability and transparency, foreign direct investors usually avoid placing their capital in such nations. This was also Romania’s problem during transition period.

Several improvements in this respect were made after 1996, when the so-called “rules of the game” started to take a concise shape, but mainly after NATO’s accession in 2004 and EU membership in 2007. Aspects such as: geographical proximity to European developed countries, the endowments with natural resources, low costs with the labour force, the friendly investment climate, or increasing consumption expectations illustrated real attraction poles of FDI inflows. Unfortunately, their positive impact on economic growth was annihilated by the severe financial crisis which hit national economy in 2008. The sharp decline of FDI during the crisis period was also reflected by the prominent contraction of production, the increase rate of business insolvency among resident companies and of unemployment rate. On the one hand, the higher uncertainty and the worsened economic conditions eliminated Romania from the list of potential countries for placing investments. On the other hand, major investors leaved the country in such difficult moment, deepening internal economic recession.

Institutional fragility associated with economic and political instability discouraged FDI inflows and consequently deprived Romanian economy from the positive evolution trend. Given the lower level of attracted FDI in 2009-2013 and general economic and social conditions, their capacity to generate an increase of economic growth rate was limited. Our study validates this assertion, taken into consideration the unidirectional nexus, coming from FDI to economic growth rate. Unfortunately we cannot certify the vice versa relationship, coming from the economic results to FDI share in GDP. In our perspective this situation becomes understandable in the light of latest years reality. Given the slow economic recovery and also the slow increase of FDI inflows after the enormous decline from 2010-2011, maybe it is a little bit too early to talk about the performance of the economic climate in determining higher shares of FDI in GDP. A certain period of time will be needed!
Even though Romania’s capacity to absorb net inflows of FDI remains limited, there are encouraging perspectives for the future which emphasise that the situation is redressing. As a developing economy Romania needs FDI in order to promote development, but first an internal stability and institutional efficiency is required.

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Oana-Ramona SOCOLIUC, Andreea-Oana IACOBUTA, Delia-Elena DIACONASU


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