Do Foreign Direct Investments Increase the Economic Growth of Southeastern European Transition Economies?

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Abstract

There are two important effects of foreign direct investments (FDI) on a host economy: the effect on economic growth and the effect on export performances. Both economic features are important for the transition economies' prospects of European Union (EU) accession. After a short review of relevant research, this paper examines the statistical relationship between FDI inflow and economic growth. Results do not reveal any positive correlation between these two variables. Lack of correlation between FDI inflows and economic development is rather the consequence of methodological imperfections, than the real absence of positive influences of FDI. The problem arises from the fact that the observed countries are in the transition process. Due to structural reforms, there is production and employment decrease in inefficient domestic firms. This can neutralize or even outweigh the positive effect of FDI on economic growth of host sectors.

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1. Introduction

Economic theory has identified several effects of foreign direct investment (FDI) which result in increased growth rate of the host economy:

1. FDI are a form of importing of capital. Thus domestic investment can be higher than domestic accumulation. That should increase the economic growth rate. But in recent years there have been some doubts about this. There is a question as to whether import of foreign accumulation really increases the investment rate or just replaces the role of domestic savings. That enables higher levels of current expenditure and living standards in developing countries. Such a tendency has been observed in many developing countries and is most frequently seen in the least developed countries. The second relevant question is whether a higher investment rate necessarily leads to faster economic growth. In other words, is economic development a result of not just the investment level, but also of efficiency of investments.

2. Import of foreign capital (through FDI or in any other way) enables the financing of the current account deficit. That gives additional time to a country for necessary structural transformation. Restructuring of an economy is, almost without exception, linked with economic recession, growth of unemployment, social disturbances, etc. That could be a reason for foreign investors to avoid such a country. Economic growth and prosperity are among the leading factors in FDI attraction.

3. Opening of foreign companies' affiliation contributes to enhancing of competition level. That improves the consumers' choice and allows domestic producers to engage in the market game more actively, through reducing of costs, quality improvement, innovations, etc. But, there is empirical evidence that foreign competition has destroyed inefficient domestic firms. That creates economic, social and political problems in the country, at least in the short term.

4. Foreign direct investments represent a channel for international technology transfer. Increased technological levels in the FDI host sector can be transmitted to the rest of the domestic economy through a "spillover effect".

    Among all the effects we have mentioned, the most significant is the last. Modern economic theory stresses that FDI foster economic growth primarily through improvement of the technological level of the economy. That effect is much more significant than importing of foreign accumulation.

There are three different forms of international technology transfer:

1. import of high-tech products,
2. learning through export, when domestic producers acquire new knowledge about available technology, and
3. foreign direct investment.

    FDI are the most relevant source of technology transfer in developing countries and transition economies. However, it is not rare for FDI inflows in such countries to result in the so called dual economy, when sectors which are hosts to FDI become

a developed oasis in an underdeveloped economy. In that case, the effect of FDI on economic growth is limited and small. For that reason, economists pay special attention to the so called *spillover effect*, when FDI inflows in one sector of the economy bring a technological boost that spreads through the whole economy. This knowledge diffusion (often referred to as externalities or efficiency spillovers) can lead to improvements in productivity in local firms in several ways. A spillover can occur when a domestic firm copies some technologies used by a multinational corporation (MNC) in the local market. Another type of spillover occurs when local firms are forced to use existing technology and resources more efficiently, or to search for more efficient technologies, because a MNC's entry has increased competitive pressure in the market. A particularly significant channel for spillovers is through the linkages between the MNC affiliate and its local suppliers and customers. Countries should support this effect.

There is strong evidence that FDI improves productivity in host companies. The growth in productivity is the biggest in firms with total foreign ownership, less in joint ventures, while totally domestic firms have the smallest productivity growth.

Although the spreading of technology through other sectors of the economy, as a result of FDI in one particular sector, is considered real, some recent studies have not found such evidence. From the viewpoint of our paper, the most interesting are studies of spillover effect in European transition economies. Negative correlation between FDI inflows and productivity growth in domestic firms was found in the case of the Czech Republic (for example see Djankov Simeon and Bernard Hoekman 1998). Some explanations are:

1. Introduction of new technologies assumes the existence of skilled workers who are trained and capable of using them. If the stock of human capital is low, possibilities of technology transfer within the country are limited.

2. In the case of imperfectly competitive markets, entrance of foreign companies is associated with the losing of market share by domestic firms. That reduces their capability to use scale economies, which has a direct negative impact on productivity.

2. Factors in FDI influx into Central and East European countries

Flows of private capital depend on many factors: terms of demand, earning capacity, openness of the market, development of the financial sector, privatization, credit capability, investment risk, etc. Inflow of FDI into the region of CE (Central and East) Europe was negligible until 1990. The development of transition and with it the development of the privatization process created new opportunities for foreign capital owners which resulted in an increase of FDI into the region. The most important factors in FDI inflows into the region of CE Europe are as follows:

1. The availability of natural resources has played a substantial role in attracting FDI into some countries in the region, at the very beginning of the transition. FDI in the extractive sector do not depend greatly on other economic and business policies in a given country, and consequently not on the achieved level of the economic reform process. Therefore, substantial amounts of FDI have arrived in Azerbaijan and Kazakhstan even though poor results were shown in terms of transformation of the economic system.

2. Development and the achieved level of the reforms in the transitional economies are important factors in FDI influx. Liberalization of the trade regime and the price system, as well as support in terms of tax-breaks and importation fees, have played an important role in attracting FDI into the CE Europe region. At the same time, development of the reforms represents a factor of decreased share of public capital in the overall financial influx.

3. Privatization also plays an important role in attracting FDI. The countries which allowed participation of foreign capital in the privatization process, are the countries with the highest rates of influx of FDI per capita. The greatest portion of FDI went into the industrial sector, where privatization first took off. Liberalization and privatization of the services sector followed in all countries in the region in the last phase of transition. Influx of FDI into companies which were publicly or privately owned speeded up the process of their restructuring, significantly improved productivity and brought in new technologies, managerial skills and additional capital.

4. Finally, we should mention maybe the most important factor in attracting FDI into the region of the CE Europe – access to the EU market. During the 1990s all European countries in transition (except the region of the "Western Balkans") signed the agreement on accession to the EU, the so called "European Agreements". Its main characteristic is establishing a free trade zone among the signatory countries and the EU countries. Agreement involved step-by-step introduction of the free trade zone on a non-reciprocal basis, with exclusion of "sensitive" economic sectors. This arrangement in fact represents an intermediary phase toward complete accession to the EU. The desire of the European countries in the transition to become members of the EU influenced the influx of FDI into the region in two ways. First, by lowering investment risks through improvement of the business climate, dedication to the reforms, harmonization of the legislative regulations with the regulations that exist in the EU. Second, the agreement on accession allowed free access to the markets of the developed countries, allowing the investors to avoid trade barriers to the EU and to increase scale economies through larger quantities of goods sold. Simultaneously, the low paid work force in transitional countries has become more available to the multinational companies from more developed countries. The proximity of the EU market, as well as the prospect of future accession, resulted in geographical direction of the FDI, so that countries that are closer to the EU (in all aspects) received higher levels of FDI.

3. Previous research

Researchers have found no consistent correlation of FDI inflows and economic growth. Positive correlation was found in some cases, in other it was not.

Dees (1998) finds that FDI have been important in explaining China's economic growth. De Mello (1996) finds a positive correlation for some countries in Latin America. Bosworth and Collins (1999) also find that FDI inflows tend to raise a country's economic growth rate through their positive impact on total factor productivity (TFP).

Some research has stressed that the impact of FDI on economic growth varies depending on a country's capability to absorb the new technology. Blomstrom, Lipsey and Zejan (1994) find that FDI has a significant positive influence on growth rate but the influence seems to be confined to higher-income developing countries. But the level of development is not the only factor in a country's absorbing capability. Some research emphasizes the significant role of human capital. Using panel data for 69 developing countries, Boremzstein, De Gregorio and Lee (1995) find that while FDI is an important vehicle for the transfer of technologies and a positive contributor to economic growth, its impact is greater the higher the level of human capital stock in the host economy.

However, Rodrik (1999) argues that the effect of FDI on economic growth tends to be weak and suggests that much if not most of the correlation between FDI and superior economic performance is driven by reverse causality: MNCs tend to locate in the more productive, faster growing and profitable economies.

Impact of FDI on economic growth of transition economies has been the object of only a few studies. Campos and Kinoshita (2002) researched the period 1990-1998. Their study includes 25 Central and East Europe countries. In that period, FDI inflows contributed to technological development of the economies studied. The result of the study confirms the hypothesis that FDI have a significant positive effect on the economic growth of each selected country.

According to the United Nations Secretariat of the Economic Commission for Europe (2001), the countries that attract large amounts of FDI are those with good economic performances, favorable investment environment and political stability. European Union accession perspective is stressed as significant factor in FDI attraction in transition economies. In this respect their report made a distinction between those countries which are candidates for 2004 EU enlargement, and those that will follow in the next "wave". The first group received almost 60% of the total FDI inflows in the region. The report emphasized that the countries of the so called West Balkans (Croatia, Bosnia and Herzegovina, Serbia and Montenegro, FYR Macedonia and Albania) have not been able to attract FDI, owing to slow economic reforms and political instability. Also, it was found that although there were significant technology transfers through FDI, there were negative intra-industry spillovers (Czech Republic, Slovenia, Estonia).

Lyroudi, Papanastasiou and Vamuakidis (2004) examined the relationship between FDI inflows and economic growth in 17 transition economies for the period 1996-1998. The evidence from the statistical analysis suggests that FDI does not have any significant relationship with economic growth of transition countries (see Lyroudi, Katerina, Papanastasiou, John and Athanasios Vamuakidis, 2004).

Every empirical study of the economic performances of transition countries in Southeastern Europe has one specific problem – collection of relevant and uniform data. Methodology of data calculations is not the same across the region, and varies by countries. Furthermore, even when data are available, the time period is too short for serious statistical examination.

4. Data and methodology

The hypothesis of positive influence of FDI on economic growth will be tested in this paper on the basis of World Bank data on influx of FDI in the region of Southeastern Europe, the growth rate of these economies, and their GDP and GDP per capita. In comparison with previously mentioned studies, this research is based on newer data and longer time series, from 1997 to 2006. Also, a unique feature of this paper is that correlation between FDI inflows and economic growth will be tested in three different ways, in order to achieve more profound results:

   •*Correlation between FDI inflows and economic growth rates,*
   •*Correlation between FDI inflows per capita and economic growth rates,*
   •*Correlation between FDI participation in GDP and economic growth rates.*

The study examines the relation between FDI inflows and economic growth in seven countries of Southeast Europe (Romania, Bulgaria, Serbia and Montenegro, Croatia, FRY Macedonia, Bosnia and Herzegovina and Albania). Relevant data are given in the tables 1, 2, 3 and 4.

Table 1. FDI inflows for selected countries during the period 1997-2005 (millions $)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	49	45	41	143	207	135	178	424	260
Bosnia and Herzegovina	1	100	90	146	118	268	38	612	295
Bulgaria	504	537	802	1001	813	904	1419	2005	1907
Croatia	380	835	1420	1089	1558	1124	1998	1242	1518
Macedonia FYR	23	128	32	174	441	77	94	157	97
Romania	1250	2040	1025	1037	1157	1144	1844	5440	6375
Serbia and Montenegro	740	113	112	25	165	475	1360	966	1481

Table 2. Economic growth rates for selected countries during the period 1998-2006 (%)

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Albania	8	7	7	8	5	6	6	6	5
Bosnia and Herzegovina	na	na	6	4	4	3	5	5	5
Bulgaria	4	2	5	4	5	4	6	6	6
Croatia	3	0	3	4	5	4	4	4	4
Macedonia FYR	3	3	5	-5	1	3	3	4	4
Romania	-5	-3	1	5	4	5	8	4	6
Serbia and Montenegro	3	-19	5	6	4	3	7	6	6

na: not available

Table 3. FDI inflows per capita for selected countries during the period 1997-2005 ($)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	15.74	14.46	13.17	45.94	66.20	42.85	56.18	133.62	81.55
Bosnia and Herzegovina	0.26	26.45	23.80	38.63	31.20	69.95	99.63	159.73	76.90
Bulgaria	62.63	66.63	99.50	124.26	102.77	114.97	181.44	257.75	245.12
Croatia	86.76	190.64	324.20	248.72	351.06	253.15	449.57	275.69	336.75
Macedonia FYR	11.35	63.18	15.79	86.13	216.95	38.19	46.15	76.14	47.04
Romania	55.70	90.90	45.67	46.21	52.28	52.47	84.81	248.88	291.65
Serbia and Montenegro	69.57	10.62	10.53	2.35	15.49	58.43	167.16	118.49	181.67

Table 4. FDI/GDP ratio for selected countries during the period 1997-2005

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	2.26	1.64	1.1	3.87	5.05	3.00	3.12	5.61	3.14
Bosnia and Herzegovina	0.03	2.17	3.6	3.21	2.36	4.78	5.48	7.54	3.14
Bulgaria	4.87	4.18	6.2	7.94	5.98	5.81	7.12	8.31	7.16
Croatia	1.89	3.86	7	5.91	7.85	4.93	6.94	3.63	4.05
Macedonia FYR	0.62	3.57	0.8	4.86	12.85	2.05	2.03	2.99	1.68
Romania	3.56	4.25	2.8	2.80	2.88	2.50	3.24	7.43	6.46
Serbia and Montenegro	7.85	1.17	1.1	0.29	1.43	3.06	6.58	4.02	5.47

The relation is tested using the Pearson correlation coefficient and coefficient of determination (r^2). The r-squared value (coefficient of determination) can be interpreted as the proportion of the variance in y attributable to the variance in x. In this case, the independent variable is FDI inflow while economic growth rate is the dependent variable. The high result of coefficient of determination is the statistical evidence of positive relation between FDI and economic growth.

5. Results

First, the correlation of FDI inflows and economic growth rates is tested. Knowing that any investment has impact on production only after some time, I have tested the correlation between FDI inflow in one year and growth rate in the next year. **Time lag is necessary in every statistical study of the influence of investments.**[1] Results are given in the following table:

	Pearson coefficient	Coefficient of determination
Albania	-0.584	0.341
Bosnia and Herzegovina	0.101	0.010
Bulgaria	0.784	0.615
Croatia	0.495	0.245
Macedonia FYR	-0.385	0.148
Romania	0.280	0.078
Serbia and Montenegro	0.394	0.155

As is obvious, there is a wide variability of coefficient of determination by countries. Thus, we can conclude that there are no significant statistical relationships between influxes of FDI and growth rates for the selected countries. Further statistical analyses confirm this attitude, but are not included in this paper.

However, the method presented has a serious defect. The same value of FDI has a different effect in different size economies. Because of that, the method of testing is improved by examining not the value of FDI inflow but FDI per capita inflow. The advantage of this approach, in comparison with the previous one, is in considering not only the value of FDI, but also the size of the country.

In this case, results are:

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1. Testing was done also with two and three years time lag, but results was not different. These results are not presented in this paper.

	Pearson coefficient	**Coefficient of determination**
Albania	-0.584	0.341
Bosnia and Herzegovina	0.101	0.010
Bulgaria	0.784	0.615
Croatia	0.487	0.237
Macedonia FYR	-0.389	0.151
Romania	0.287	0.082
Serbia and Montenegro	0.397	0.157

Again, the variability of coefficients of determination shows that there is no statistical relationship between FDI inflows per capita and economic growth rates.

Taking into account the size of economy in analyzing the effect of FDI on economic growth is necessary and useful. But, using the population as the measure of country size is not reasonable in economic studies. Economic size should be measured by GDP value. That's why the GDP of the country will be now used as a measure of economic size of country. The relationship between FDI/GDP ratio and economic growth rates is the next relation that will be tested. Resulting coefficients of determination are given in the following table:

	Pearson coefficient	**Coefficient of determination**
Albania	-0.447	0.200
Bosnia and Herzegovina	0.131	0.017
Bulgaria	0.733	0.533
Croatia	0.410	0.168
Macedonia FYR	-0.420	0.177
Romania	0.024	0.001
Serbia and Montenegro	0.308	0.095

This is the most correct method of all three approaches used in determination of effect of FDI on economic growth. FDI/GDP ratio represents the most appropriate measure of FDI inflow's significance for economic activity of the host country. But no statistical correlation between these two variables is found. Once again, there are wide variations in results.

6. Conclusion

Recent empirical studies confirm the positive effect of FDI inflows on economic growth in developing countries. FDI is recognized as an important channel of international technology transfer. However, studies of the same relation in European transition economies do not show such a consistent result. Our study, based on more recent data and longer time series, also failed to reveal any positive correlation between FDI inflows and economic growth rate. However, this paper offers one possible explanation. There is no doubt that foreign direct investments have a positive

influence on economic activity in Southeastern European transition countries, but we must keep in mind that this particular region is in the middle of the transitional process. Branches of transnational companies (TNC) in transition economies contribute to increased production, productivity and employment. At the same time, TNC affiliations are among the most successful exporters in these countries. They are responsible for export increase, increase of export/GDP ratio, better structure of exports etc. Why then is there no positive correlation between FDI inflows and growth? The cause can be found in the transition process itself. Due to structural reforms in these countries, there is a decline in production and employment in inefficient domestic firms. This can neutralize or even outweigh the positive effect of FDI on economic growth. That is the reason why no statistical correlation between influx of FDI and economic growth was found. Further research should try to isolate this effect.

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