

Foreign direct investment, employment creation and economic growth in CEE countries. An open issue

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Abstract— *The economic crisis has raised serious concerns regarding negative growth rates and high unemployment levels. Policy makers are concerned nowadays in finding solution for recovery. The aim of our paper is to present the theoretical arguments for FDI as a possible solution in unemployment reduction and growth enhancement in CEE countries. We analyze the potential direct and indirect effects of the FDI, offering also a structural analysis of FDI shares in employment and in the total value-added. We conclude that, under certain conditions, the relationship FDI-employment-economic growth can be a viable solution for CEE countries.*

JEL codes: F23, F16, F43, E24

Keywords— employment, FDI, growth, job creation, CEE countries

I. INTRODUCTION

THE foreign direct investments (FDI) are associated with a sum of beneficial effects in the host countries. They are most wanted in the developing countries as they are seen as a stimulating factor of economic growth, a complement to domestic investment and an important source of financing the account current deficit.

In this context, there is an increasing concern about the activity of multinationals, in particular regarding job reallocation from developed countries towards developing ones, based on low wage levels. Analyzing the situation in Central and Eastern Europe group of countries, who are net receivers in terms of FDI, the major interest would be to exploit their potential role in employment. The relationship between FDI and labor employment has been scarcely studied in the literature and conclusions on this matter are still mitigated. The issue is of major importance for Central and Eastern European countries, which have suffered important changes in their economies and where FDI has played an

important role. The privatization and the reshaping of the economies during transition brought important changes on the labor market: the decline and then the privatization of firms, the creation of new local firms, the Greenfield projects of foreign investments. All these have generated two opposite forces, one of creation, another one of job destruction (Dunning, 2008). The net effect is difficult to be accounted for by a single factor. In the post-transition period, the employment level increases, both in the foreign sector as in the domestic one. The natural question that arises is if a high enough level of FDI would generate a higher level in terms of employment? An answer to this question is difficult to give at an aggregate level, where there are contrary effects that compensate one another. We expect the effect to be more clearly seen at industry level.

If the empirical literature has paid an increased attention to the foreign trade and migration influences on the labor market, we find it surprising that the relationship between FDI and employment is studied in just few papers (Jenkins [2006], Nunnenkamp [2007]). The phenomenon of job creation is considered to be an important contribution that FDI might have on host economies, but the empirical evidence identifies both positive and negative aspects. When evaluating the employment effects of FDI, one has to take into account the quantitative change in employment levels, the skill structure and the geographical distribution of employment (UNCTAD, 1994). The positive or negative relationship depends on the type of FDI, the entry mode, the export orientation and the factorial intensity of destination sectors.

In this paper we will limit our analysis to the countries from Central and Eastern Europe, newest members of the European Union¹. The motivation for this choice is based on several reasons. These countries have common patterns which depend on the former socialist structures and also on the specific transition process. They are comparable among them, but different from other developing countries (Johannes, 2006).

The structure of the paper is as it follows: section 2 presents the patterns of the FDI in Central and Eastern European countries and their role in economic growth, section 3 offers

Manuscript received October 30, 2010. This work was supported by CNCSIS-UEFISCSU, project number PNII RU TE code 298/2010

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¹ CEE countries included in our analysis are: the Czech Republic, Hungary, Poland, Estonia, Lithuania, Latvia, Slovakia, Slovenia, Romania and Bulgaria.

insights about the potential role that FDI can have on employment (direct vs indirect effects). Section 4 presents the details of the relationship between FDI and job creation, offering some statistical evidence, while section 5 concludes and provides recommendations of macroeconomic policy.

II. FDI IN CENTRAL AND EASTERN EUROPEAN COUNTRIES (CEE COUNTRIES)

FDI represents one of the main engines of economic growth in the Solow model. This contribution is via capital accumulation (limited contribution due to decreasing returns to scale). The main lack of the exogenous Solow growth model is that it explains growth based on a residual factor, i.e. technical progress, which remains unexplained. Thus, the role of FDI is better seen as an engine of growth in an endogenous growth model (by physical capital transfer but especially by technology transfer). Romer (1986, 1990) in his theoretical model of endogenous growth stresses the role of technological progress, innovation, research and development in assuring sustained economic growth. Also, Romer (1993) suggests that FDI facilitates the reduction of the „ideas gap” by know-how transfer and the increase in firms’ productivity, with or without foreign participation. He introduces FDI in an endogenous growth model, economic growth being assured by investment in physical capital and research and development, which generates ideas for newly created goods.

These goods, which intermediate production at another level in the economy, have the capacity of increasing the accumulation of knowledge. Romer appreciates the creation of goods that incorporate advanced technology as depending on the human capital level and its increase. Thus, firms that operate in countries with consistent human capital can rapidly innovate, benefit from technological progress and an increase in productivity. In the absence of adequate human capital, FDI inflows, accompanied by know-how transfer, is viewed as an optimal solution for ensuring economic growth (Pop-Silaghi and Maşca, 2010). From these theoretical considerations, it can be stated that the role of FDI is crucial for the economic growth and moreover, that this role is being correlated with the level of human capital in the receiving country. Understanding the role of FDI in employment and labor productivity offers thus a good channel to evaluate the real potential of FDI as an essential engine of economic growth in emerging countries.

The countries of Central and Eastern Europe (CEE countries) have had an industrialized character and a relatively skilled labor force, therefore having a particular pattern among developing countries. They have gone through the privatization process while FDI flows were reaching historical levels, the two phenomena being strongly correlated in this region during the nineties. FDI is considered an as important factor that enhanced economic growth and favored the catching-up process towards Western Europe. There were even opinions stating that the technology transfer associated with FDI was more important for the transition economies than the capital flows themselves (McMillan, 1996). Unlike developed

TABLE I
FDI INFLOWS AND ECONOMIC GROWTH IN CEE COUNTRIES

Year	1998	1999	2000	2001	2002	2003
FDI inflows (% of GDP)	6.1	5.3	6.0	5.0	5.5	4.4
Economic growth rate	4.5	2.1	4.7	4.6	4.7	5.5
Year	2004	2005	2006	2007	2008	2009
FDI inflows (% of GDP)	6.1	7.6	8.4	8.4	5.9	2.8
Economic growth rate	6.2	6.3	7.6	7.1	2.5	-8.1

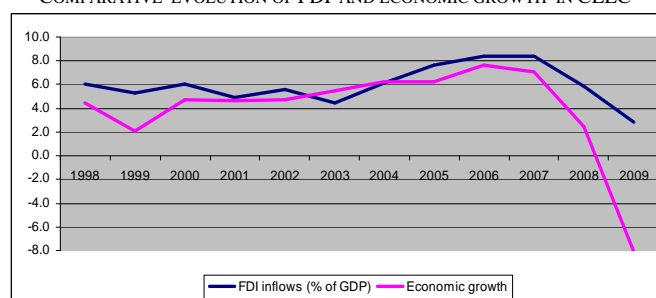
Source: Authors’ calculations based on Eurostat data, National Accounts and International Payments Statistic databases. The figures represent the mean rates for the ten countries taken into consideration.

countries, the emergent countries are relatively far from the technological production frontier. For this reason, they are specially concerned by technology transfer, being able to exploit its benefits in a higher degree.

In order to see the magnitude of FDI flows relative to the size of the economies and the rate of economic growth, we present Table 1.

Compared to other developing countries, CEE countries seemed to have attracted moderate FDI inflows. Although the share in world FDI is not very important, the percentage in GDP and the speed of inflows were among the highest at world level (Maşca and Jude, 2009). The privatization process was one of the important factors that made CEE countries an important pole of attraction. These countries experienced high rates of economic growth, especially during the years 2005, 2006, 2007. FDI is considered one of the most important determinants of economic growth in this region. A comparative evolution of the two is presented in Figure 1.

FIGURE 1
COMPARATIVE EVOLUTION OF FDI AND ECONOMIC GROWTH IN CEEC



Source: the data source is Table 1. FDI is expressed as a percentage of GDP.

We can observe a correlation between the evolutions of the two variables, with a constant increase in both FDI inflows and economic growth. 1998 and 1999 marking the end of transition, CEE countries have experienced after the year 2000 a boost in economic activity and record rates of economic growth. This is also the moment of joining the European Union, which enhanced the attractiveness for foreign investors. 2007 seems to be the peak in growth, the year 2008 and 2009 showing a dramatic decline in growth. FDI has had the same

evolution, most of the Greenfield projects in the region being canceled or in stand-by.

For CEE countries, as a destination for FDI, we can identify several characteristics:

1. *Relatively low labor costs, but low labor productivity.* At the beginning of the nineties this countries have experienced a dramatic decrease in productivity, which started to recover only during 1997-1998. There is a convergence towards western productivity levels, but the differences are still present, even inside this group of countries. As an example, Romania and Bulgaria reach today around 50% from the average European labor productivity. Even more, national averages hide a high heterogeneity. A part of the low industrial productivity is being compensated by the service sectors, which have productivity levels comparable with Western Europe.

2. *High industry specialization, but low efficiency.* The centralized economic system and market dependence on the ISC (Independent States Community) countries have led to an industrial specialization in industries like chemicals, machinery and heavy metals' industry. Once firms have lost these markets, they also lost their scale production economies, accumulated high debts and even reached the closing point.

3. *Skilled Labor Force* and at a low salaries compared to FDI origin countries. Although the wage gap is narrowing, it remains important in investors' locational decisions, especially in labor intensive sectors.

4. A good *absorption capacity.* The general view is that CEE countries have a sufficient level to integrate in a productive way the new technology brought by FDI. The two components of the absorption capacity refer to the human capital and to the technological capacities (Blomstrom and Kokko, 1998) In particular the skilled labor is appreciated as considered to facilitate the knowledge transfer and the mobility of the workers among the foreign and domestic firms.

III. THE POTENTIAL ROLE OF FDI UPON DOMESTIC EMPLOYMENT

The technology transfer that accompanies FDI leads to an increase in labor productivity, which means that the same quantity of goods can be produced with less labor. The immediate effect would be a job loss. On the other hand, the productivity increase can materialize in an increase of production and income level. Considering that the increase in productivity is not the same across all sectors of the economy, a higher output will need more labor, therefore creating new jobs (Parienty, 2005). The net effect is given by the trade-off of these two opposite forces, the industrial specialization playing an important role.

According to Dunning (2008), multinationals' activity in recent years was concentrated on the delocalization of low skilled industries and business services. From the source countries point of view, this orientation originated concerns about job losses in favor of developing countries. If this is the case, we should observe an increase in employment in host

countries. But do these world mutations have a significant role in employment levels?

The effects FDI can have on domestic employment in host countries, regardless if they are positive or negative, directly transmitted or indirectly. They act through three leverages: the quantity, the quality and the localization of jobs. In what follows, we will present the potential effects of FDI on domestic employment, starting from two transmission canals, directly and indirectly, and then present the circumstances which determine a difference in the net effect.

A. Direct effects on employment

The direct effects on employment refer to the contribution of FDI to total employment. At first glance, Greenfield investments are supposed to be those who generate a supplement of jobs, as they create new jobs which did not exist before. The impact of this contribution is higher when the activity is labor intensive. In the case of privatizations, a reorganization of firms is expected, followed by a job loss. In the case of other fusions and acquisitions, the immediate effects on the employment seem to be negligible (Dunning, 2008). The changes are not strictly quantitative. They also refer to a change in the structure of labor demand or the spatial localization of jobs. A synthesis of these effects is presented in

TABLE 2
A SYNTHESIS OF THE POTENTIAL DIRECT EFFECTS OF FDI
ON DOMESTIC EMPLOYMENT

	<i>Positive</i>	<i>Negative</i>
Quantitative changes	Leads to an increase in net capital stock and therefore creates new jobs in expanding sectors	Privatizations and other types of acquisitions can lead to restructurations and job losses
Qualitative changes	Higher levels of labor productivity and wages An increases the share of skilled workers Creates incentives for skill upgrading	The transfer of low value-added activities can lead to skill waste, the workers being over-qualified and even risking a skill loss An increase in the wage gap between skilled and unskilled workers
Locational	Creates new jobs in areas with high levels of unemployment	FDI oriented more on urban, crowded areas, contribute to an increase of regional disparities

Source UNCTAD 1994, table IV.1 and authors' own comments

Table 2.

The most important issue when analyzing the direct effects of FDI is: which would have been the employment evolution if it were to be of domestic investment rather than a foreign one? Why a foreign firm would hire more or less labor force than a domestic one, or why would it search different skills in workers? Possible answers are difficult to give, because they would be a combination between advantages linked to foreign capital, its motivation and FDI type, the specific of the host sectors etc. There is always the risk that a foreign investment will partially or totally replace a domestic one. The net effect would then be inferior to the number of jobs created. When FDI is located in industries which are capital intensive, the number of jobs created per monetary unit invested would be

low (Jenkins, 2006).

B. Indirect effects on employment

The indirect effects are as a result of the impact that FDI can have on local firms, in what concerns their own level and conditions of employment. Indirect effects may appear to the extent to which FDI decides to buy local inputs. In this way it increases demand addressed to local firms and it has an indirect stimulating effect on employment levels. This effect disappears if FDI decides to import inputs, because there is no change in the demand for the local suppliers. In what concerns FDI's competitors on the local market, the crowding-out effect of domestic firms may appear (Aitken&Harison, 1999). The net effect on employment will therefore be negative.

Another indirect effect is skill upgrading for their employees, by investment in human capital and training programs. As workers' mobility between foreign and domestic firms takes place, the general skill level is expected to increase. The natural consequence of a higher skill level will be an increase

TABLE 3
A SYNTHESIS OF THE POTENTIAL INDIRECT EFFECTS OF FDI
ON DOMESTIC EMPLOYMENT

	<i>Positive</i>	<i>Negative</i>
Quantitative changes	Can lead to job creation by spillover effects on local firms	Job losses due to the crowding-out effect of local competitors and because of import input supplies.
Qualitative changes	Applying good practices regarding labor organization	Wage cuts in local firms in order to face competition from FDI
Locational	Stimulates suppliers to locate in areas with high unemployment	May lead the local suppliers displacement and increase in regional unemployment, if FDI does not supply locally or competes local production

Source UNCTAD 1994, table IV.1 and authors' own comments

in labor productivity and wages.

Empirical studies [Blomstrom et al, (1999), Aitken and Harison, (1999)] have shown that the desired positive effects for host countries do not actually take place unless there are some pre-requisite factors concerning host country characteristics, local firms and also multinational firms. These factors will be discussed in the next section of the paper.

IV. FACTORS DETERMINING THE FDI-EMPLOYMENT RELATIONSHIP

The main factors we can cite here are FDI motivation, their market strategies, the entry mode and host sectors' characteristics. This last factor is of major importance for the role that FDI can play in employment, and furthermore in enhancing economic growth.

The industry in which FDI is located plays a crucial role in the potential impact on employment. If location is in industries that are capital and technology intensive, with high value added, it is expected that the effect on the employment level to be insignificant. If FDI replaces local firms that were using relatively labor intensive techniques, the effect can be even negative (Dunning, 2008). If FDI is located in labor intensive sectors, the quantitative effect on employment can be positive

and significant. An example is the service sector, which showed a high increase in the share of world FDI and which presents a high potential for labor employment, especially skilled labor. This is the case for banking services, insurance, real estate etc., which characterizes market-seeking FDI. The most important increase is though registered for business services. They are offshored by firms from developed countries in fields like IT services, accounting, financial analysis, call centers. A major driving force for offshoring these activities was the speed of communications and internet access.

Another essential factor which conditions the skill structure of employees is the nature of FDI activities and the technology transfer that accompanies FDI. Depending on these factors, the consequence can be an increase or decrease of the average skill level of employment. Thus:

When FDI uses a modern technology, this means a demand for skilled workers (already having the skills or acquiring them by training). It can also require support functions or research & development, therefore increasing employment for the highly skilled (Feenstra and Hanson, 1997).

If FDI runs low technical level activities (i.e assembling operations), the increase in employment can still be registered for the low skilled workers. But as a consequence, the medium skill level will decrease and some workers might even lose some of their skills (Johannes, 2006).

Relative to the dimension of the economy or the host

TABLE 4
THE SHARE OF FOREIGN FIRMS IN EMPLOYMENT, WAGE EXPENSES AND VALUE ADDED, IN MANUFACTURING AND TOTAL ECONOMY

	<i>Share in MNF EMP</i>	<i>Share in MNF Wages</i>	<i>Share in total EMP</i>	<i>Sectors with the highest FDI shares in total employment</i>	<i>Share in VA</i>
Czech Rep.	45.5 %	52.1 %	33.1 %	Chemical industry Electrical equipments and electronics Office equipments Automotive industry	58.7 %
Hungary	36.9 %	51.5 %	n.a.	Metals Medical instruments Optical and precision instruments Radio and TV equipment Automotive industry	58.9 %
Poland	32.5 %	n.a.	23.3 %	Electrical equipment and electronics Radio and TV equipment Automotive industry	n.a.
Slovakia	51.2 %	58.7 %	n.a.	Chemical industry Electrical equipments and electronics Radio and TV equipment Automotive industry	69.1 %

Figures show the share of the firms with foreign capital (min 10%) in total employment and in manufacturing employment. Data are collected from OECD Globalization and Employment Databases. The acronyms used stand for: EMP employment, MNF manufacturing industry, VA value added

REFERENCES

industries, the observed effects are higher as the percentage of FDI is higher. In order to have an idea on what the share of FDI in employment levels is in CEE and which would be the potential incidence of these firms on the national employment level, we present Table 4.

Compared to the other European countries, CEE countries present high values of employment for foreign firms. These features holds even at world level. This is an important argument to consider the role FDI can play in employment in this region. The FDI share is even higher for value added figures, implying higher labor productivity compared to local firms.

The pattern of FDI in the host manufacturing sector is pretty much the same across the CEE countries. We can observe high foreign presence in industries like: chemicals, electrical machinery and electronics, radio and telecommunication equipment and automotive. This suggests a relative homogeneity of FDI specialization in this region. Considering the labor intensity of these sectors, we would expect a positive contribution of FDI to total employment. Furthermore, following the classification provided WIFO-Peneder (1999) for the skills required in each industry, we can expect an increase in the demand for medium-skilled labor.

V. CONCLUSIONS

Focusing upon the influences that globalization has on the market labor is very important for the orientation of the present macroeconomic policies. These need to be carefully constructed in order to correct the disequilibria caused by the recent economic crisis. The impact of globalization over the labor market and the mechanisms through which the increase in world economic integration can generate new jobs are still far from being understood. In a moment in which there is an active search for solutions to reduce unemployment and to enhance positive economic growth rates, FDI can be seen as a possible instrument for recovering from the severe crisis experienced by all CEE countries.

In this paper we have presented the theoretical arguments put forward for the positive contribution of FDI to employment in host countries. We classified the effects in direct and indirect effects and we discussed the issues related to each one of them. We emphasized the fact that these effects do not take place automatically, but their presence and most importantly, their intensity, depend heavily on factors like the host industry, the entry mode or the strategy of FDI.

We can conclude that the potential for a positive contribution of FDI to employment and growth exists in CEE countries. The share that FDI has reached in local economies allows for a visible role in promoting growth. The concern that all the policy makers are facing is to identify those sectors with a higher potential in employment and growth and to direct FDI inflows towards these sectors. The future direction of our research would be to test empirically the potential contribution of FDI to the enhancement of employment and economic growth in this region.

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