“Foreign direct investment and macroeconomic changes in CEE integrating into the global market”

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Foreign direct investment and macroeconomic changes in CEE integrating into the global market

Abstract

This study relates to the post communist era in the Central and Eastern Europe (CEE) and focuses on foreign direct investment (FDI) as a factor facilitating the globalization process while stimulating economic growth in the host countries. The first part of this study describes the globalization process and inward FDI performance index (CEE vs. World). The second part reflects macroeconomic changes in the post communist CEE and examines macroeconomic indicators, including GDP per capita, economic growth rate, unemployment and inflation. The third section focuses on the association between inward FDI stock and economic growth in the CEE. This study found a positive correlation between inward FDI stock and economic growth for each CEE country examined. This research will be extended in the future to determine the importance of FDI in economic growth of the CEE countries.

Keywords: foreign direct investment, CEE countries, globalization, macroeconomic indicators, performance index.
JEL Classification: E22, E24, P24.

Introduction

The FDI inflows into CEE economies have been a vital factor at the first stage of the privatization process during the transition period. As the privatization and restructuring process comes to an end, the main reasons to pursue FDI are to boost productivity, encourage employment, stimulate innovation and technology transfer, and to enhance sustained economic growth.

This study shows that high foreign capital inflows play a vital role in CEE economies and have become an important indicator of the advancing globalization processes in CEE. This research reviewed the experiences of CEE countries integrating into the global market and analyzed the inward FDI performance index (CEE vs. World), the trends of the basic macroeconomic indicators, and the link between FDI stock and economic growth in the CEE.

The countries examined in this paper were: Poland, the Czech Republic, Hungary, Slovakia and Slovenia. These countries became members of the European Union (EU) on May 1, 2004 (www.eurunion.org). The EU membership has shaped major aspects of economic policy and new legislation. The largest economy among the analyzed CEE countries is Poland, with the population of 38.6 million. This compares to 10.244 million in the Czech Republic, 10.063 million in Hungary, 5.392 million in Slovakia, and 2.004 million in Slovenia.

1. The inward FDI performance index

1.1. The CEE and the global economy. With the fall of communism in the former Soviet Union, a number of countries have faced the prospect of transforming from a command economy to a market-oriented one. The transformation in CEE economies has been facilitated by the privatization of state-owned enterprises and the development of the private business sector. Foreign direct investments (FDI) have played important role in the privatization and restructuring process of the CEE economies (Case & Fair, 2004). The CEE countries acknowledge foreign direct investment as an essential tool in the development and modernization of their economies. Foreign direct investment in CEE has increased in the past twenty years to become the most common type of capital flow needed for stabilization and economic growth.

The CEE countries seek to attract and promote foreign investment to liberalize their economies to ensure free movement of capital and profits (www.usatrade.gov). Attracting foreign investment has become a key component of national strategies for the CEE countries. FDI is seen as an essential factor in stimulating economic growth, expanding capital, and increasing productivity, employment, innovation and technology transfer www.poland.gov.pl/index.php?document=1638).

There is no doubt that the world is moving toward a global economy, where national economies are becoming more globally integrated and interconnected. The collapse of communism and the advanced Economic Integration of Europe has forever shaped global development in the twenty-first century. During the past two decades, FDI became an integral part of the globalization process. Proponents of globalization believe that it boosts productivity and living standards around the world. Attracting foreign investment and liberalizing economies have become the key strategic components for CEE countries. Governments have officially encouraged FDI and have provided substantial incentives for foreign investments.

Globalization is a dynamic process of liberalization, openness, and international integration across a

wide range of markets from labor to goods, and from services to capital and technology. "Globalization is based upon the freedom to trade with the rest of the world and to capitalize on each country's comparative advantages, as well as the freedom to invest where returns on capital are greatest" (Guillermo de la Dehesa, 2006, p. 1). Globalization signifies the intensification of economic, political, and cultural interconnectedness among the various actors in the global system.

In the economic arena, it integrates national economies with the global economy. The global economy is in a state of transition, ranging from a set of strong national economies to a set of interlinking trade groups. This transition has accelerated over the past few years with the collapse of communism and the coalescing of the European trading nations into a single market. One of the most important paths driving global development into the twenty-first century is the advanced Economic Integration of Europe (Vietor, 2005). It has been an essential factor contributing to the growth of FDI in the CEE countries over the past few years. Never before have so many economies been open to global trade and finance flow than now, after the liberalization of the former communist economies (Guillermo de la Dehesa, 2006).

1.2. The CEE versus the World Inward FDI Performance Index. The FDI refers to an investment made to acquire lasting interest in enterprises operating outside of the economy the investor. The investor's purpose is to gain an effective voice in the management of the enterprise. Some degree of equity ownership is almost always considered to be associated with an effective voice in the management of an enterprise. A threshold of 10 per cent of equity ownership qualifies an investor as a foreign direct investor (Balance of Payments Manual, 1993) (www.unctad.org/Templates/Page.asp?intItemID=3146&lang=1).

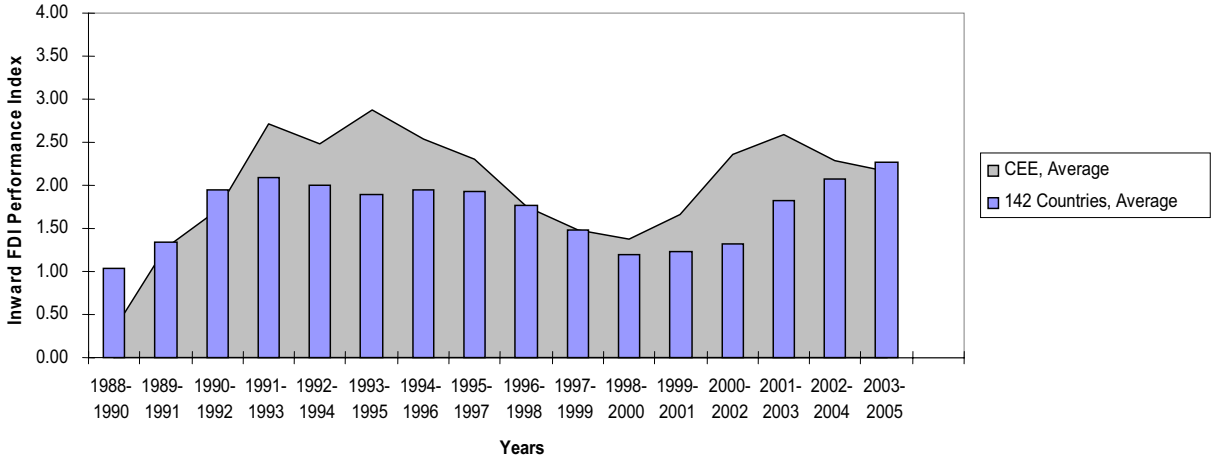
The CEE countries all identified the positive effect of the FDI on the transition process. The FDI inflows to CEE countries have been developing in parallel with improvements in political stability and economic transformation. Recent inflows can be attributed to the positive impact of the last EU country increase in May of 2004. New EU countries have improved the business environment and introduced policy measures aimed at liberalizing, promoting, and protecting FDI, offering relatively low wages, low corporate taxes, and the use of subsidies.

The analyzed Inward FDI Performance Index ranks 141 countries by the inward FDI relative to the economic size of the country. It is the ratio of a country's share of global FDI inflows to its share in global GDP. A value greater than one means that the country received more FDI than its relative economic size. A value below one indicates that the country received less FDI than its relative economic size (UNCTAD, 2004).

$$IND_i = \frac{FDI_i}{FDI_w} \div \frac{GDP_i}{GDP_w}, \quad (1)$$

where IND_i – the inward FDI Performance Index of the i^{th} country; FDI_i – the FDI inflows in the i^{th} country; FDI_w – world FDI inflows; GDP_i – GDP in the i^{th} country; GDP_w – world GDP.

Comparison of the CEE countries Inward FDI Performance Index against the World Performance Index between 1959 and 2005 indicates that the FDI performance of CEE transitioning economies was above the world average performance (see Fig. 1). The analyzed CEE countries also outperformed EU-15 countries between 1990-1999.



Source: UNCTAD, Foreign Direct Investment Statistics, FDI Indexes
http://www.unctad.org/Templates/WebFlyer.asp?intItemID=2471&lang=1

Fig. 1. Inward FDI Performance Index: CEEC vs. 142 countries (on average)

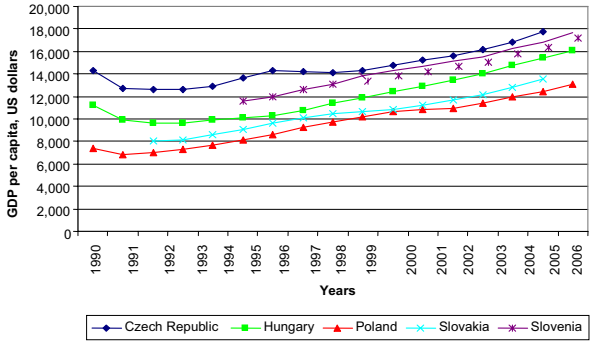
When comparing the FDI performance and FDI potential indexes, four categories of countries can be distinguished: front-runners, above potential, below potential and under-performers. The front-runners are the countries with high FDI potential and high performance. According to the matrix of the United Nations Conference on Trade and Development (UNCTAD, 2004), all CEE countries analyzed (Poland, Czech Republic, Hungary, Slovakia and Slovenia) are classified as front-runners having high FDI performance and high FDI potential (http://www.unctad.org/Templates/WebFlyer.asp?intItemID=2471&lang=1).

Currently, the old EU countries hold the highest share of productive capacity owned by foreigners in the CEE, while Germany and the United States are expected to be the principal investors in this region (www.UNCTAD/WIR/2003).

2. The indicators of macroeconomic performance

2.1. GDP per capita and economic growth. There are a variety of indicators assessing transition outcomes in the CEE transforming economies. This study will be limited to the main macroeconomic indicators: GDP per capita, GDP rate of growth, unemployment, and inflation rate. It will include major changes in output growth, unemployment and price index in CEE region.

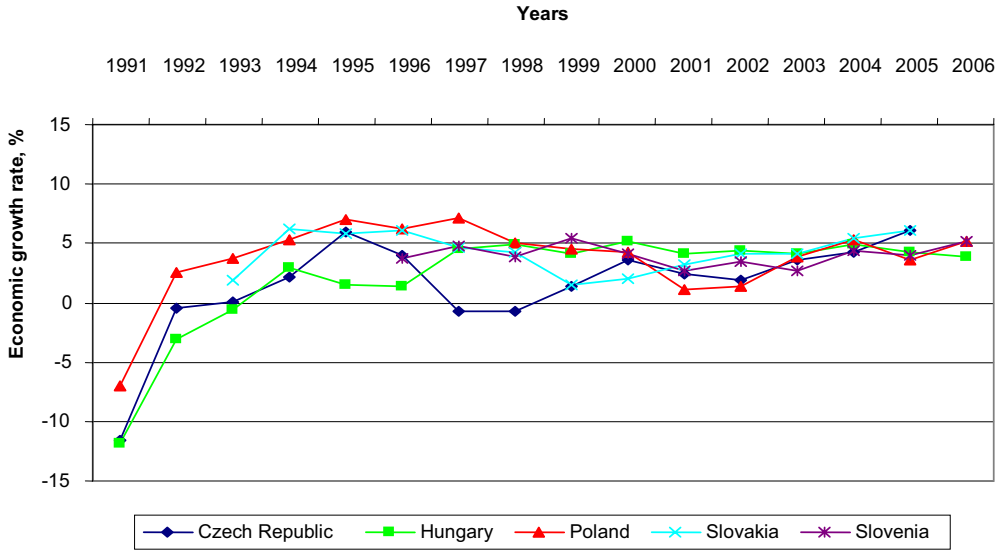
GDP per capita constitutes a very important economic index used in the international comparisons, which indicates standard of living. Growing GDP per capita in the CEE countries during the transformation period (1990-2006) shows an increasing standard of living (see Fig. 2). Since 1992, GDP per capita in all CEE countries under study has been increasing dynamically. The relatively high GDP per capita is in Slovenia (22.632 US Dollars) in comparison with the Czech Republic (20.417 US Dollars), Hungary (16.994 US Dollars), Slovakia (15.214 US Dollars) and Poland (13.791 US Dollars). The lowest GDP per capita in Poland relates to the highest population numbers among transforming CEE countries, while the highest GDP per capita in Slovenia pertains to the lowest population numbers.



Source: UNECE Statistical Database, Economic Statistics: http://w3.unece.org/pxweb/Dialog/statfile1_new.asp

Fig. 2. GDP per capita (US dollars): CEEC comparison, 1990-2006

There are different patterns of economic growth and differences in output performance during the transitioning of various CEE countries. However, all of the transitioning CEE countries have been building the new macroeconomic structure via deregulation of prices, liberalization of trade (trade barriers had to be removed to import goods, services, capital and technology), privatization (replacement of state property with private property), external assistance (outside support and financing via foreign aide and direct investment) and capital market development (banking systems, venture capital funds, stock markets, bond markets, investment banks).



Source: UNECE Statistical Database, Economic Statistics: http://w3.unece.org/pxweb/Dialog/statfile1_new.as

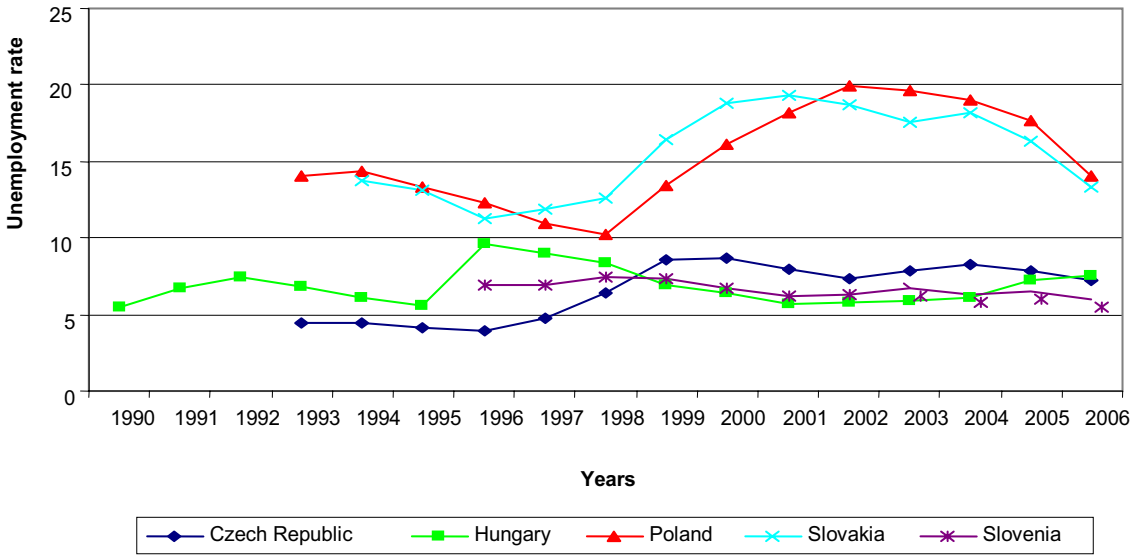
Fig. 3. Economic growth rate (%): CEEC comparison, 1991-2006

The economic growth rate is a major indicator for judging successful transitioning. The characteristic aspects of transition economies include an initial collapse of output followed by a slow recovery. During the early years of transition (1991-1993) the downslide of economic activity was significant (Fig. 3). Between 1993 and 1995, all analyzed CEE economies started to show an increasing trend in economic growth compared to declining growth between 1996-1997 in Hungary, 1998-1999 in the Czech Republic, 1999-2000 in Slovakia, and 2001-2002 in Slovenia and Poland.

2.2. Unemployment rate in the CEEC. Unemployment was theoretically nonexistent during the command era and became an important indicator during transition period. It is known that there was *hidden unemployment* during the command era, as jobs were guaranteed by the law and it was difficult to dismiss non-productive workers.

The central issue during the transition era has been the movement of labor from the inefficient state sector to the emerging private sector. As a result of this process, the unemployment rate increased significantly. Liquidation of state owned firms, and the direct or indirect transformation from state owned firms to private ownership contributed to the high unemployment rate.

Other reasons of unemployment relate to the developing market economy and the modern technology. Inefficient private enterprises have been going out of business increasing the number of unemployed. New technologies requiring more skilled labor have resulted in layoffs and higher unemployment rates in the industry sectors with emerging technologies. Between 1990 and 2003, the high unemployment rate has been a serious problem in Poland and Slovakia. In 2003, the unemployment rate in the both countries was above 19% but decreased significantly in the last few years to about 14% (see Fig. 4).



Source: UNECE Statistical Database, Economic Statistics: http://w3.unece.org/pxweb/Dialog/statfile1_new.asp

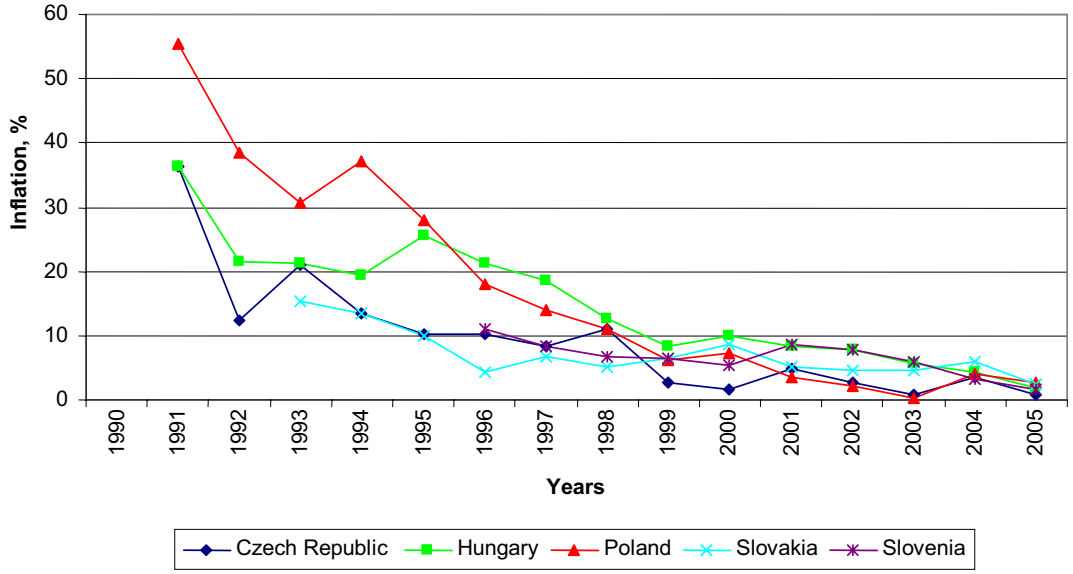
Fig. 4. Unemployment rate: CEEC comparison, 1990-2005

In the rest of the countries the last few years unemployment rates were relatively lower: 8.7% in the Czech Republic (2000), 9.6% in Hungary (1996), and 7.4% in Slovenia (1994) during the beginning of the transition process with lower rates in the last five years: 7.2% in the Czech Republic (2006), 5.7% in Hungary (2001), and 6.0% in Slovenia (2006). The transitioning economies have begun to develop unemployment compensation, however, inequality and poverty are great threats in CEE.

2.3. Inflation rate. During the command era, prices were set by the state. In the early period of transition, prices were released from state control. In the early 1990s, prices increased sharply as a result of a market imbalance. Centrally planned economies have been characterized as economies of shortages. With the transition to a market economy, the prices of goods and services in short supply were pushed upward. The highest inflation during the transition period called hyperinflation or shortage inflation took place between 1989 and 1991 (see Fig. 5).

Poland, Hungary and the Czech Republic experienced the highest inflation rates at the beginning of the transition. In 1991, the inflation rates were as follows: 55.3% in Poland, 36.4% in Hungary and 36.2% in the Czech Republic. With political and greater economic stability, the 2005 inflation rate decreased to 2.6% in Poland, 2% in Hungary, and 0.7% in the Czech Republic. Slovakia and Slovenia did not experience as severe inflation rates. The inflation rate in Slovakia decreased from 15.4% in 1993 to 2.4% in 2005; while Slovenia decreased from 11.1% in 1996 to 1.5% in 2005.

The further institutional changes and government decentralization, increased private ownership, reconstruction of the banking system, foreign aides and foreign investment inflows stabilized the CEE economies and tamed inflation rate.



Source: UNECE Statistical Database, Economic Statistics: http://w3.unece.org/pxweb/Dialog/statfile1_new.asp

Fig. 5. Inflation rate (%): CEEC comparison, 1990-2005

3. The inward FDI stock and economic growth correlation index

3.1. The inward FDI stock as a percentage of GDP. The CEEC has identified the positive effects of FDI on the transformation process of the economy. Foreign direct investment (FDI) has increased in the past twenty years to become the most common type of capital flow needed for the reconstruction, stabilization of the CEE economies and economic growth. The importance of FDI to the stabilization and growth of the CEE economies cannot be underestimated.

Foreign direct investment (FDI) has increased in the past twenty years to become the most common type of capital flow during transition period. The most important economic reason for attracting FDI at the beginning of the transformation process was to facilitate the privatization and restructuring of the central planning economies (Heimann, 2003). At present as the privatization and reconstructing process comes to an end, the main reason to pursue FDI is to enhance productivity, encourage employment, stimulate innovation and technology transfer, as well as to enhance sustained economic growth.

The volume of FDI inflows has grown rapidly, as the governments of the CEEC have officially encouraged FDI and developed a formal FDI promotion programs providing substantial incentives for foreign companies. Figure 6 presents FDI inflows into the CEE between 1990 and 2005. The last decade has made it clear that foreign direct investment created employment, increased productivity and exports, and led to transfers of knowledge and technology to the CEE host countries (www.regeringen.se/sb/d/1284/a/29424).

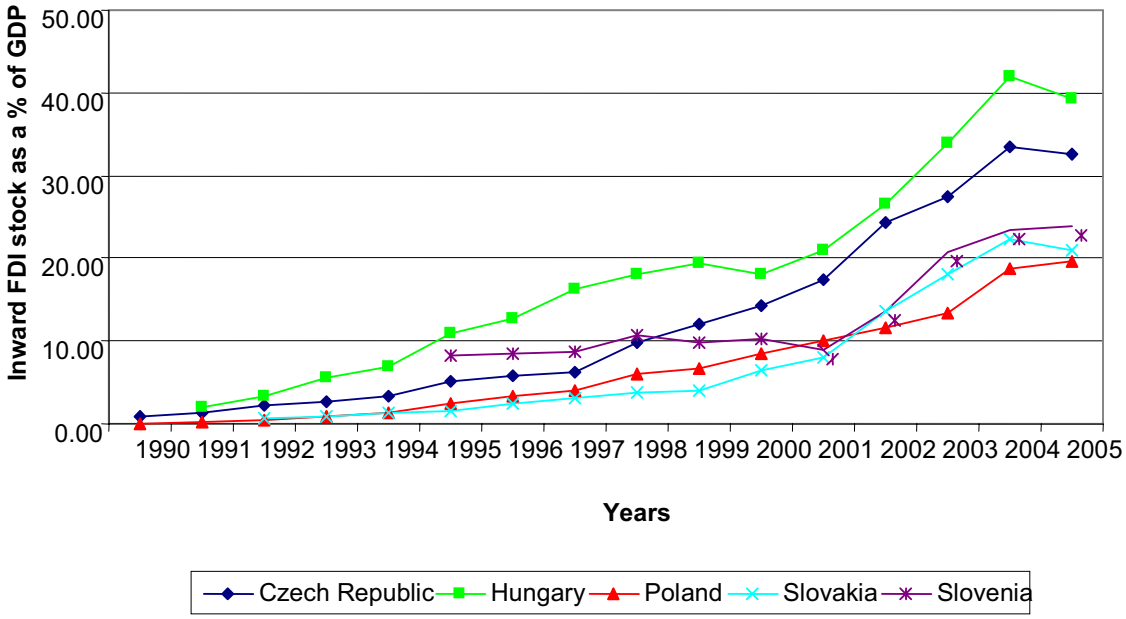
The size and increasing FDI inflows to transitioning CEE countries were impressive. Poland, Hungary, and the Czech Republic have become the most attractive destination for foreign investments. Foreign investment inflow in transitioning CEE countries shows an increase in size and constitutes a relatively high percentage of GDP. Inward inflow of FDI in Poland accounted for 4.5% of GDP, in comparison with the Czech Republic and Hungary where FDI inflow accounted for 8.7% and 4.7% of GDP (Kornecki, 2006).

The FDI inflow measures the amount of FDI entering a country during a one-year period, while the FDI stock is the total amount of productive capacity owned by foreigners in the host country. It grows over time and includes all retained earnings of foreign-owned firms held in cash and investments.

The share of foreign stock as a percentage of GDP has been very high in the Czech Republic, Hungary, and Slovakia, and constitutes respectively, 47%, 45%, and 29% of each country's GDP. In Poland, the share of foreign stock as a percentage of GDP was much lower and amounted to 22% of GDP, in comparison with the 18% share in Slovenia (see Fig. 6).

The high percentage of foreign stock in GDP indicates that foreign capital plays a vital role in CEE economies and represents one of the most important indicators of the advanced globalization process in CEEC.

The EU countries hold the highest share of productive capacity owned by foreigners in CEE countries, while the USA and its many international corporations contribute a great deal of foreign stock to this region. The EU members hold 74% of productive capacity owned by foreigners in Poland, while the USA and international corporations contribute respectively 13% and 6% to foreign stock in the Polish economy (Kornecki, 2006).



Source: UNECE Statistical Database, and UNCTAD World Investment Report 2006.

Fig. 6. Inward FDI stock as a % of GDP: CEEC comparison, 1990-2005

3.2. The inward FDI stock and GDP correlation index: methodology, findings and implication for the future research. A large number of empirical studies on the role of FDI in host countries suggest that FDI is an important source of capital, complements domestic private investment, and is usually associated with new job opportunities and enhancement of technology transfer, and boosts overall economic growth in host countries (Chowdhury & Mavrotas, 2006).

Based on references from current research studies, the consensus seems to be that there is a positive association between FDI inflows and economic growth, provided that receiving countries have reached a minimum level of educational, technological and/or infrastructure development (Hansen & Rand, 2006).

This research utilized 1960-2006 archival data from the following sources: United Nations Conference on Trade and Development (UNCTAD) – Foreign Direct Investment Statistics and World Investment Reports; United Nations Economic Commission for Europe (UNECE) – Statistical Database and World Investment Reports, as well as other selected databases.

Table 1. Real GDP & inward FDI stock correlation, CEE comparison, 1990-2005

	Czech Republic	Hungary	Poland	Slovakia	Slovenia
Correlation	0.936	0.940	0.931	0.909	0.888
R2	0.875	0.884	0.866	0.827	0.789

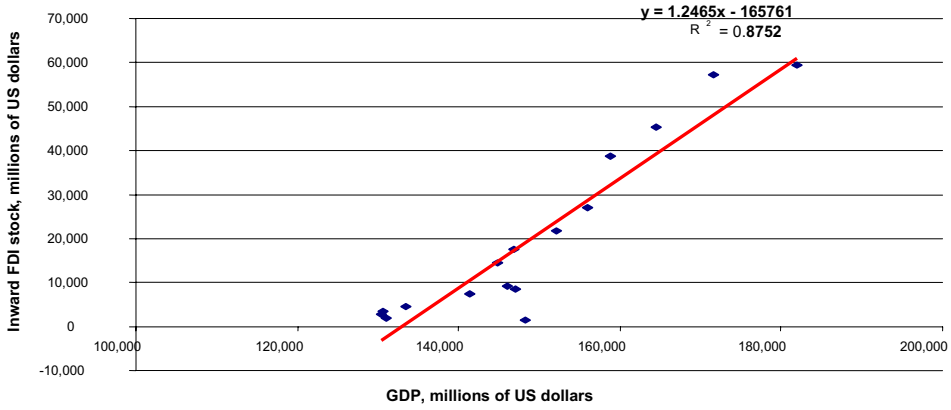
Source: UNECE & UNCTAD 2006 (calculated).

Table 1 shows the correlation between GDP and inward FDI stock. This study indicates the strong link between FDI stock and economic growth in all examined CEE countries between 1990 and 2005. The correlation coefficient is positive in all countries with the relatively high value in Hungary (0.940), the Czech Republic (0.936), Poland (0.931) and relatively lower value in Slovakia (0.909) and Slovenia (0.888).

These preliminary findings indicating the positive association between the FDI stock and GDP growth in all examined countries constitute the base for the future research on sources of the economic growth in the CEE. Further research will estimate the impact of the FDI on economic growth in the CEE countries using an aggregated growth model based on the production function to verify the hypothesis

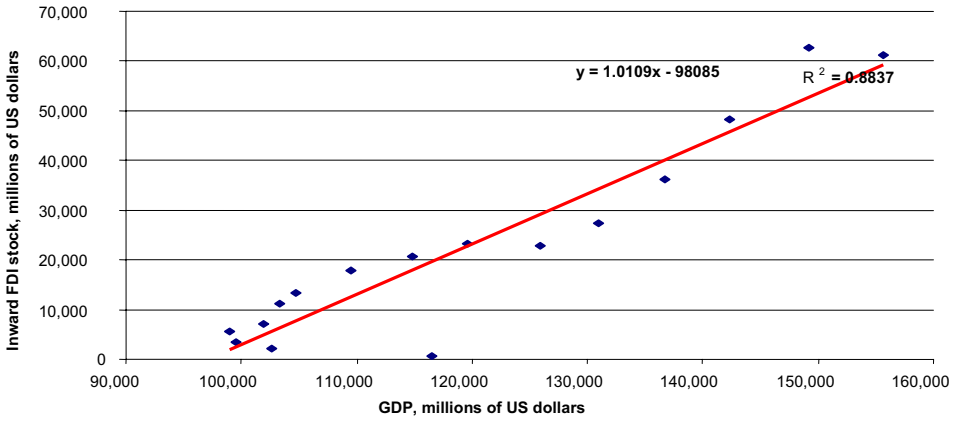
that FDI stock, in comparison with other factors such as: labor, capital and export, constitutes a fundamental source of economic growth in CEE.

Figures 7-11 illustrate the regression lines of the analyzed correlation between real GDP growth and inward FDI stock in the CEE countries.



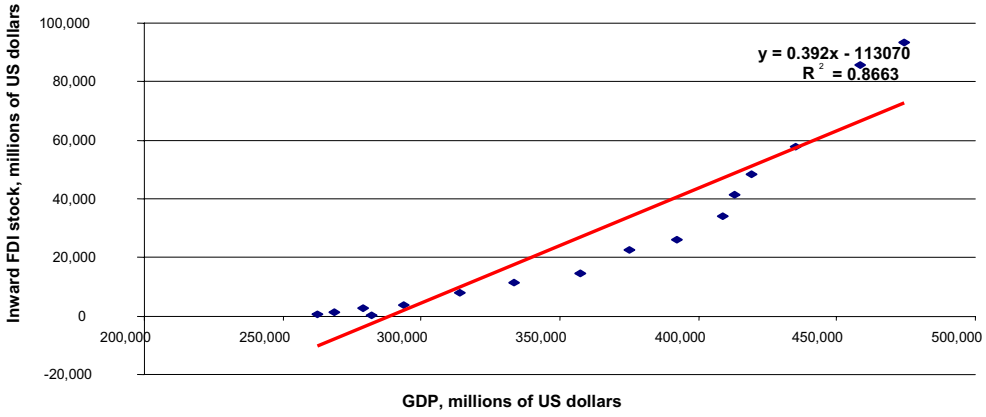
Source: UNECE Statistical Database & UNCTAD World Investment Report 2006.

Fig. 7. Real GDP & inward FDI stock correlation, Czech Republic, 1990-2005



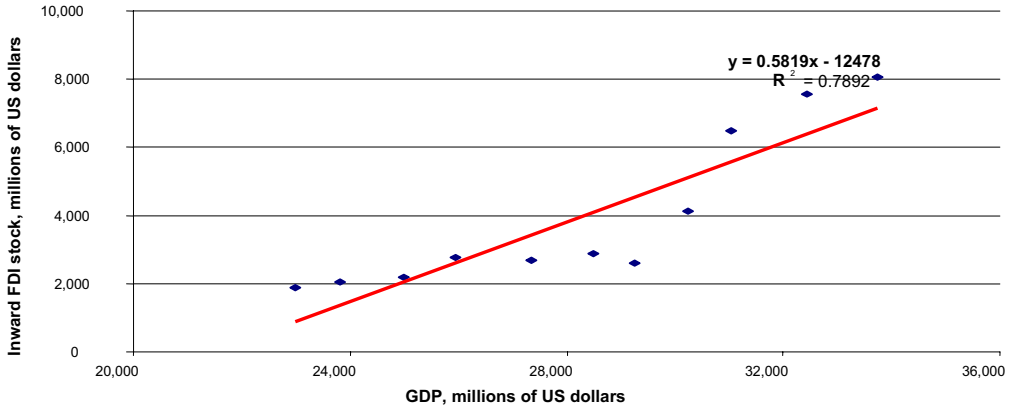
Source: UNECE Statistical Database & UNCTAD World Investment Report 2006.

Fig. 8. Real GDP & inward FDI stock correlation, Hungary, 1990-2005



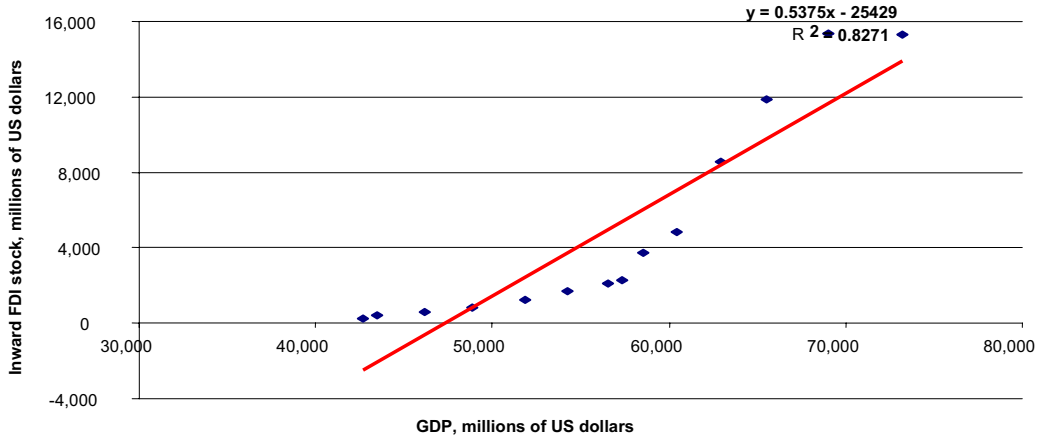
Source: UNECE Statistical Database & UNCTAD World Investment Report 2006.

Fig. 9. Real GDP & inward FDI stock correlation, Poland, 1990-2005



Source: UNECE Statistical Database & UNCTAD World Investment Report 2006.

Fig. 10. Real GDP & inward FDI stock correlation, Slovenia, 1990-2005



Source: UNECE Statistical Database & UNCTAD World Investment Report 2006.

Fig. 11. Real GDP & inward FDI stock correlation, Slovakia, 1990-2005

Conclusion

The collapse of communism and the advanced Economic Integration of Europe have shaped the global development in the twenty-first century. The post communist institutional changes such as: government decentralization, increased private ownership, reconstruction of the banking system, markets development, foreign aids and foreign investment inflows had a major effect on the CEE economies stabilization.

Analyzed records related to macroeconomic changes in the CEE countries show increasing rate of economic growth, increasing standard of living, tamed inflation and a decline in the unemployment rate between 1990 and 2005.

The FDI became an integral part of the globalization process. The inward FDI has increased in the CEE in the past twenty years to become the most common type of capital flow during the transition period. Considering the FDI performance index between 1990 and 2005, analyzed CEE countries outperformed on average the world and the old EU-15 countries. The high percentage share of the FDI stock in the GDP indicates that foreign capital plays a vital role in CEE economies and has become an important indicator of the advancing globalization processes in CEE.

This study indicates the strong link between FDI stock and economic growth. The correlation coefficient for each examined CEE country was positive (Hungary 0.940, Czech Republic 0.936, Poland 0.931, Slovakia 0.909 and Slovenia 0.888). This research will be extended in the future to determine the role of FDI in economic growth of CEE countries.

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