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The effects of transition and political instability on foreign direct investment: Central Europe and the Balkans

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The Effects of Transition and Political Instability

on Foreign Direct Investment:

Central Europe and the Balkans*

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Abstract

In this paper we estimate the effects of transition and political instability in the Eastern European and Balkan transition countries on their FDI inflows. For transition countries unaffected by political instability, FDI inflows in the 1990s were around 20 to 30% of those achieved by European market economies with similar economic characteristics. Progress with transition and reform increased transition economies' ability to achieve their potential FDI inflows, but because of their progress in stabilization and macroeconomic performance, this transition gap was not closed very much in the 1990s. The Balkan countries also suffered additional shortfalls in FDI due to political instability. Our estimates show that these shortfalls were large.

JEL Classification numbers: F21, F23, P52

Key Words: foreign direct investment, transition, political instability, political risk

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I. Introduction

The transition economies of Eastern Europe have seen a large upsurge in foreign direct investment (FDI) during the past decade. These inflows have been dramatic both because of their dynamism, as these countries began the 1990s with practically no stock of FDI, and because FDI had important consequences for the transition process and for these countries' economic performance. However, the distribution of FDI among the transition economies has been highly uneven, and the timing of inflows has been sensitive to political events in individual countries, to the mode of privatization adopted as well as to the success of efforts at macroeconomic stabilization and the creation of market institutions. This suggests that there are two forces at work influencing FDI inflows to these countries. One is the process of transition itself, as progress in transition to a market economy should lead to FDI inflows that would be appropriate for a market economy. The second factor influencing FDI inflows, particularly to Balkan transition economies, is political instability. Armed conflict, inter-state or inter-ethnic; political and civil strife, including assassinations, riots, etc.; the imposition of embargoes and trade sanctions; and other forms of political conflict have characterized the region, and doubtless they have discouraged FDI inflows. In this paper we estimate both the effects of progress in transition to a market economy and of political instability on FDI inflows to a sample of Central European and Balkan transition economies. We find that, while all these economies suffer a shortfall in FDI relative to comparable market economies, progress in transition does stimulate FDI inflows. We also find political instability to be a significant barrier to FDI in the Balkans.

Figure 1 shows FDI inflows into four Central European economies. All have experienced a rapid increase in FDI. Hungary was an early leader in FDI inflows, in part because of its more sophisticated economic relations with the West before the transition, which led many foreign investors to view Hungary as a country that had the infrastructure and economic savvy to accept foreign investments. Another reason for Hungary's early lead was its privatization strategy, which made sales of state-owned firms to foreign investors the preferred path to privatization. Poland's FDI inflows began to grow

somewhat later than Hungary's, in part due to the delays in the privatization process in Poland as well as to its design. Nevertheless, for the second half of the decade, Poland experienced the largest FDI inflows of this group of countries, as it is also the largest economy in this sample group. Czech FDI inflows began to accelerate even later than Poland's due to the fact that the voucher privatization in the Czech Republic tended to favor domestic ownership over acquisitions of state-owned firms by foreigners. Thus, it took longer before foreign investors could come to own Czech firms through acquisitions, and, consequently, more foreign investment took the form of greenfield investments, which have a much longer gestation period.¹ The Slovak Republic has the lowest levels of FDI, and it was also the last country to see a sharp upsurge in investments. These lower FDI inflows reflect the Slovak Republic's smaller size as well as the negative image that foreign investors formed of Slovakia's domestic politics, its ability to manage its economy, to proceed with meaningful economic reforms, and to manage its external relations with neighboring countries and with the EU. Since the defeat of the Mečiar government, investor sentiment has improved, aided no doubt by the objective fact that the Slovak economy has performed quite well relative to its transition-economy neighbors.

Figure 1 also shows the volatile nature of FDI inflows into these countries. This volatility results from the fact that international mergers and acquisitions (M&A), a key vehicle for FDI, are greatly influenced by stock market fluctuations. In these transition economies, an additional source of volatility has been the privatization through FDI of large assets such as national telephone companies (Matav in Hungary, SPT Telekom in the Czech Republic) and other large firms and banks.

Foreign direct investment inflows into the Balkan region are lower than those to the Central European countries, and, as Figure 2 shows, there are greater inter-country differences in the volume of FDI inflows. Romania, Bulgaria and Croatia emerged as significant host countries for FDI in the second half of the decade. Progress with economic stabilization and economic and political reform no doubt

¹ Greenfield investments mean the construction of new production facilities by the foreign investor while acquisitions involve the purchase of a controlling interest in an existing local firm. There were, of course, important acquisitions in the Czech Republic as well, including VW's purchase of Škoda, the sale of SPT Telekom, the country's telephone company, and, more recently, the sale of large commercial banks such as Komerční banka.

played a role in these trends. However, at least Bulgaria and Romania are considerably bigger than the other Balkan countries, so an inter-country comparison of the levels of FDI requires some scaling to account for country size. Figure 3 provides the cumulated FDI from 1991 to 2001 divided by GDP in 2001 for the Central European countries. With such a scaling, the Czech Republic and Hungary surpass both Poland and the Slovak Republic by a wide margin. Figure 4 provides a scaling based on population, providing cumulated 1991-2001 FDI inflows per capita. These reveal much the same picture, with the Czech Republic and Hungary leading Poland and the Slovak Republic on a per capita basis.

In the case of the Balkan countries, scaling becomes even more important given the greater differences in country size. Figure 5 provides data on cumulative 1991-2001 inflows relative to GDP, and Figure 6 provides the same information on a per capita basis. A number of conclusions can be drawn from an examination of Figures 3-6. Perhaps the most striking is the gap in FDI inflows between the Balkan countries and their counterpart transition economies in Central Europe when we account for country size. Whether scaled by GDP or by population, with the exception of Croatia and, on a per capita basis, of Slovenia, the levels of FDI in the Balkan region fall far short of those found in the Central European transition economies. Only Croatia's FDI inflows relative to GDP and population are comparable to those of Poland and the Slovak Republic, although they fall well short of the inflows achieved by Hungary and the Czech Republic. Slovenia does poorly when scaled by GDP because of high per capita GDP levels, but it does better on a per capita basis, achieving levels comparable to those of Poland and the Slovak Republic.

Nevertheless, given Slovenia's and Croatia's level of economic development, the strong influence of foreign trade with Western Europe and even of foreign investors in these countries in the 1980s, the relative sophistication of their economic and financial institutions, and the experience of managers in these countries with market mechanisms, one might have expected these countries to do at least as well as, if not better than, the Czech Republic and Hungary as hosts for foreign investors. The performance of the other former Yugoslav Republics is much worse, especially when considered on a per capita basis, and Bulgaria and Romania do not have FDI inflows that distinguish them from this latter

group of countries. Thus, the data clearly reveal what can reasonably be termed a shortfall in FDI for the Balkan countries.

The causes of this Balkan shortfall are manifold.² Some of them can be attributed to the lower levels of development of some of the former Yugoslav Republics, though even Slovenia and Croatia, which have high levels of per capita income, exhibit this shortfall. Some of the Balkan countries are small by any standard, which may limit FDI inflows relative to countries that can offer a large domestic market, but even large economies such as Bulgaria and Romania suffer shortfalls in FDI. Many, although by no means all, Balkan countries have been unable to implement or sustain cohesive reform strategies.³ Moreover, many Balkan countries, are small and on the periphery of the EU.⁴ Some of the shortfall may be caused by failures in stabilization, such as those experienced by Bulgaria and Romania, but FYROM, Slovenia and Croatia have had low levels of inflation and relatively stable exchange rates, yet they have fared no better in attracting foreign investors. There were also problems in privatizing firms, with many of the former Yugoslav Republics relying on variants of the so-called Markovic Law on privatization, which effectively put much of the productive property in these countries in the hands of insiders.⁵ Yet, different means were used in Bulgaria and Romania, with little evident effect on FDI inflows.

One common element affecting the Balkan region has been political instability, both among countries of the region and within many of the countries themselves. The early and partly violent breakup of the Republic of Yugoslavia and the continued fragmentation of what remained as Yugoslavia, culminating in the NATO bombings, is but the most visible example of political instability in the region. FYROM has suffered from inter-ethnic strife, a blockade by Greece, as well as from the enforcement of

² For a thoughtful survey, see Slaveski and Nedanovski (2002).

³ Claessens *et al.* (2001) and Lankes and Stern (1999) stress the importance of reform progress in attracting FDI to transition economies.

⁴ On the geographic handicaps faced by the Balkan countries, see Petrakos (2002).

⁵ For some telling insights into the workings of privatization in the former Yugoslav Republics, see Šuklev (1996), Slaveski, (1997), Franiæviè (1999) and Hadziè (2002).

the blockade against Serbia. Albania, too, has experienced tensions with both FYROM and Greece, while Croatia has had continuing conflicts with Serbia in addition to its involvement in Bosnia. There have also been domestic instabilities, some based on inter-ethnic tensions or assassinations of political figures, others on failures in regime change and yet others on weak or ineffective governments that were unable to deal with domestic unrest and violence.

In the next section we briefly review the literature that relates political risk to investment decisions. In Section III we propose a way of disentangling the effects of economic factors and political instability on the flow of FDI into the Balkan region, we estimate a model of FDI among European countries, and we use this model to establish a baseline for FDI into transition economies. By comparing the predictions of this model to the actual flows of FDI into transition economies that were little affected by political instability, we then can estimate the effects of economic reform and progress in transition on FDI. Using this information on the relationship between progress in transition and FDI inflows, we are able to decompose the FDI shortfall of the Balkan countries in transition into those effects that are due to a lack of progress in transition and to those that result from political instability. In Section IV, we sum up our findings, and we argue that the costs of this shortfall are likely to exceed its monetary magnitude by briefly reviewing the literature on the effects of FDI in the transition economies of Eastern Europe.

II. Political Instability as a Barrier to FDI

Investment, including FDI, is a forward-looking activity based on investors' expectations regarding future returns and the confidence that they can place on these returns. Thus, by its very nature, the FDI decision requires some assessment of the political future of the host country. There are two principal risks stemming from political instability in the host country that the investor faces. The first is that domestic instability or civil war or conflict with neighboring countries will reduce the profitability of operating in the host country because domestic sales or exports are impaired, or production is disrupted, or the facility is damaged or destroyed. The other consequence of political

instability stems from the fact that it is likely to affect the value of the host country's currency, thus reducing the value of the assets invested in the host country as well as of the future profits generated by the investment.

There is a growing literature on the effects of political stability on economic performance, both from a theoretical perspective and in terms of empirical work. Carmignam (2003) provides an excellent survey of the literature on the link between political instability and economic performance. The survey covers both theoretical modeling and empirical studies. Also, the papers in a supplement to *Journal of International Money and Finance*, edited by Lothian and Melvin (1991), examine the significance of political risk for investment decisions. Noteworthy individual studies include Citron and Nickelsburg (1987), who build a model of country risk for foreign borrowing that incorporates a political instability variable and Cherian and Perotti (2001), who construct a theoretical political risk model of capital investment. Fielding (2003) constructs a model of investment in Israel that incorporates indicators of political instability and unrest. There are also related studies that examine the impact of political instability on economic growth and investment. Alesina and Perotti (1996) found that an increase in the intensity of political instability decreases investment, hence slowing down economic growth. Using a political instability index based on political assassinations, revolutions and successful coups, Campos and Nugent (2002, 2003) investigated the causal link between the index and growth and investment, respectively, using pooled panel data. Their results provide only weak evidence for the negative link running from political instability to per capita GDP but stronger causality from political instability to investment. Fielding (2003) showed that political instability during the *Intifada* had a significant effect on Israeli investment.

The link between political instability and asset markets and investment in the literature has been studied from several angles. One important strand of the literature emphasizes the importance of political risk in emerging markets. Robin, Liew and Stevens (1996) show that political risk is a more important determinant of asset returns in emerging markets than in developed markets. Bussiere and Mulder (1999), using a sample of 23 countries, conclude that including political variables in economic

models significantly improves the ability of such models to explain economic crises. They also find that countries are more vulnerable to financial crises when election results are more uncertain.

Another relevant strand of the literature examines the link between political instability and the behavior of stock markets on the not unreasonable assumption that the latter are a good mirror of investor reactions to political instability. Ketkar and Ketkar (1989) investigated the determinants of capital flight from Argentina, Brazil and Mexico and found that political risk was an important factor in all three countries. Bailey and Chung (1995) studied the impact of political risk on the Mexican stock market and found a significant link between political risk and the equity premium. Kutan and Perez (2002) examined the significance of socio-political instability and organized crime in Colombia on that country's stock market prices and found a significant connection. Political instability has also been linked to the volatility of stock markets (Han and Wei, 1996; Bittlingmayer, 1998; and Aggarwal, Inclan, and Leal, 1999). Other studies that found significant evidence that political events affect asset markets are Willard, Guinnane and Rosen (1996) and Kim and Pei (2001).

There is also a large literature on the effects of political instability on foreign exchange markets, and this provides clear evidence that political instability both causes the value of country's currency to decline and makes the exchange rate more volatile. Kutan and Zhou (1993, 1995) show that the intensity of political unrest in Poland preceding and during the economic reforms introduced during late 1980s and early 1990s affected foreign exchange returns and bid-ask spreads. They found that events that reflected political turmoil caused substantial declines in the value of the zloty on the foreign exchange market and increased the bid-asked spreads on foreign exchange transactions, making them more costly for investors. Melvin and Tan (1996) studied the effects of social unrest on foreign exchange market spreads in South Africa and across 36 industrialized and developing countries. They also found that political unrest caused larger spreads. Crowley and Loviscek (2002) assessed the impact of political risk on the currency markets of six Latin American countries, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela, during the 1990s. They also reported a statistically significant relationship wherein instances of political unrest depressed a country's currency on foreign exchange markets for up to three months.

The link between the depreciation of the currency and the increased foreign exchange market volatility is demonstrated in the foregoing literature, and a decline in FDI inflows in response to greater volatility is clearly shown by Kogut and Chang (1996).

III. Estimating the Shortfall In Balkan FDI: Disentangling the Effects of Transition and Political Instability

All transition economies suffer a shortfall in FDI inflows relative to similar market economies due to the effects of transition, but the shortfall in the FDI inflows of the Balkan economies is related to an additional factor, the effects of political instability in the region on the decisions of potential foreign investors. The difficulty in disentangling these two effects drives our modeling strategy. One approach, appealing because it is direct and affords a clear test of the hypothesis that political instability has depressed FDI in the region, would be to specify and estimate a model of FDI in the Balkans that would have as explanatory variables not only the standard economic variables used to explain a country's FDI but also a set of variables describing the pace of system change and economic liberalization in each Balkan country as well as a final set of variables that captures the political instabilities to which each country is subject over time. The expectation would be that the coefficients associated with the political instability variables would thus provide a quantitative measure of the effect of political instability on each country's FDI inflows, holding reform and economic characteristics fixed.

Indeed, there is a well developed literature that examines the relationship between host country political instability and FDI inflows in precisely this fashion. For example, Bennett and Green (1972), Singh and Jun (1995), Globerman and Shapiro (2002) and Cho (2003) all add measures that reflect domestic political instability or risk as an explanatory variable to economic characteristics of host countries, and they all find that such risk variables help explain FDI inflows because increased political risk significantly reduces FDI. Deichman et al. (2003) find that indicators of the rule of law and of "general investment climate", both of which to some extent reflect political stability, are significant

factors in the determinants of FDI inflows into Eurasian transition states.

While these results are germane and instructive for our work, there is one fundamental shortcoming in the approach used by these studies. It is that the measures of political risk used in these studies refer mainly to domestic political instability as quantified by strikes, riots, civil unrest, etc. However, these studies use no risk measures that reflect external sources of political risk, such as war or border clashes between countries, foreign trade embargos, economic sanctions or blockades, war or conflict in neighboring states, etc., that are so important for the Balkan region.

Of course, it would be possible to follow in the path of the aforementioned studies by adding indicators of external conflicts among Balkan countries to our explanatory variables. However appealing such an approach may be, it also has serious drawbacks. The first of these is that there would be a large number of parameters to estimate, while, even with a panel of all Balkan transition countries, the data set available to estimate these parameters is limited because some countries lack data for the entire 1990s period. Moreover, the Balkan countries least effected by political instability, such as Romania, Slovenia and Bulgaria, have much longer sample periods than do the more impacted countries such as Bosnia. Thus, the regression results would be biased to reflect the experience of the former at the expense of the latter. Truncating the sample to a common time period would, on the other hand, exacerbate the problem of a small sample size relative to the number of parameters to be estimated. An additional problem is that of quantifying the concept of external political instability. While political scientists have developed both aggregate and bilateral measures of the goodness of relations of countries, using these measures is difficult in a situation where nation states are breaking up into constituent parts that have no "record" of external relations, and thus no data on them, and that may have relationships with their neighbors that differ considerably for those of the nation state from which they emerged. A good example of such a situation is that of Macedonia, whose relations with Greece were much more influenced by issues over its name and status that they had been when it was a constituent part of Yugoslavia.

To overcome these problems, we adopt an indirect approach to quantifying the effects of

transition and political instability on FDI in the Balkans. In the first step, we establish the relationship between FDI inflows and country characteristics for European economies that are not undergoing transition and that are not subject to serious political instability. We include in our sample Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Spain, Sweden and Switzerland for the period 1980 to 2001. This panel of countries gives us sufficient observations to develop robust estimates of the relationship between country characteristics and FDI inflows in Europe. We restrict our sample to European countries because we believe these are the appropriate reference group for both the transition economies and for the Balkan countries. In general, the sample countries have higher incomes than do the transition and Balkan countries, but we include per capita GDP as an explanatory variable to control for this fact. Our specification of the relationship between FDI inflows and a country's economic characteristics is:

$$LFDI_{i,t} = \mathbf{a}_0 + \mathbf{a}_1 LGDPCUR_{i,t} + \mathbf{a}_2 LGDPPC_{i,t} + \mathbf{a}_3 LINF_{i,t} + \mathbf{a}_4 LPHONE_{i,t} + \mathbf{a}_5 LTRADE_{i,t} + \mathbf{a}_6 LSECOND_{i,t} + u_{i,t} \quad (1)$$

where the prefix L indicates the log operator and:

$FDI_{i,t}$ = foreign direct investment inflow into country i in year t in current US\$

$GDPCUR_{i,t}$ = GDP of country i in year t in current US\$

$GDPPC_{i,t}$ = per capital GDP of country i in year t in 1995 US\$

$INF_{i,t}$ = inflation in country i in year t , as % increase in the consumer price index

$PHONE_{i,t}$ = number of telephone lines per 1000 inhabitants in country i in year t

$TRADE_{i,t}$ = ratio of the trade of country i to its GDP in year t

$SECOND_{i,t}$ = secondary enrollment (% gross school enrollment) of country i in year t

$u_{i,t}$ = error term.

Current GDP is used as a scale variable to capture the size of the economy, and a coefficient greater than one would suggest that countries that offer large markets are able to attract

disproportionately higher shares of FDI inflows. Per capita income is used as a proxy for the level of development and for wages in a country, and we use constant prices in order to allow for an intertemporal ranking of the level of development of economies. The sign of this coefficient is impossible to predict a priori. On the one hand, higher wages raise production costs and discourage FDI, but they also signal higher incomes and thus a more attractive market for the investor's products. The inflation variable measures macroeconomic stability, and reflects the host country's ability to maintain a stable exchange rate. The number of telephone lines per 1000 inhabitants is a proxy for the quality of the country's communications and transportation infrastructure, both of which are factors that are important to foreign investors. The trade variable measures the openness of the country to international trade. A low value of this variable may signal high tariff barriers, which would attract FDI, or it may signal a lack of competitiveness in export trade. Finally, the proportion of students in secondary education is an indication of the quality of the country's labor force and thus its attractiveness as a place to manufacture goods.

The estimations for Equation 1, and for Equation 6 below, are carried out using feasible GLS (FGLS) pooled-panel regression.⁶ These classes of models can be estimated using pool objects

$$y_{it} = \mathbf{a} + x_{it}' \mathbf{b}_i + \mathbf{e}_{it} \quad (2)$$

where y_{it} is the dependent variable, and x_{it}' and \mathbf{b}_i are vectors of non-constant regressors and parameters for each cross-sectional unit $i = 1, \dots, N$ and time period $t = 1, \dots, T$. We use FGLS due to the very likely cross-sectional heteroskedasticity existent in the data. The weighting and the heteroskedasticity correction, $(X' \Omega X)^{-1} X' \Omega Y$, is done by using the covariance matrix

$$\Omega = E(\mathbf{e}\mathbf{e}') = \begin{pmatrix} \mathbf{s}_1^2 I_{T_1} & 0 & \dots & 0 \\ 0 & \mathbf{s}_2^2 I_{T_2} & 0 & \vdots \\ \vdots & 0 & \ddots & 0 \\ 0 & \dots & 0 & \mathbf{s}_N^2 I_{T_N} \end{pmatrix} \quad (3)$$

⁶ Data were obtained from the World Bank's *World Development Indicators 2002* CD-ROM.

Even though contemporaneous correlation is also highly likely as well, we refrain from using seemingly unrelated regression (SURE) due to possible problems unless T is considerably greater than N (Beck and Katz, 1995). In SURE weighting, the Ω matrix turns into

$$\Omega = E(\mathbf{ee}') = \begin{pmatrix} \mathbf{s}_{11}^2 I_T & \mathbf{s}_{12}^2 I_T & \cdots & \mathbf{s}_{1N}^2 I_T \\ \mathbf{s}_{21}^2 I_T & \mathbf{s}_{22}^2 I_T & & \vdots \\ \vdots & & \ddots & \\ \mathbf{s}_{N1}^2 I_T & \cdots & & \mathbf{s}_{NN}^2 I_T \end{pmatrix} \quad (4)$$

so there are $N(N+1)/2$ contemporaneous covariances to be estimated using $N \times T$ observations. This means that each element of the Ω matrix is estimated using $2T/N$ observations. This ratio is around 3 for our largest dataset, leading to significant overconfidence in the Parks standard errors. The benefits of accounting for the contemporaneous correlation are dominated by the false inference probability, which causes us to only correct for heteroskedasticity in our panel FGLS.

We also avoid the introduction of any fixed effects or lagged terms or using dynamic panel data estimation to formulate a more “universal” model of FDI. Introduction of these terms would likely add to the explanatory power of the regression models; however, the introduction of these variables make the projection of the estimated parameters on another set of countries that much more difficult.

Parameter estimates for Equation 1 are reported in Table 1. The regression achieves a satisfactory fit, with an R-squared of about 0.75, and most coefficients are statistically significant. Current GDP has a positive coefficient greater than one, so larger countries receive more FDI because the elasticity of FDI with respect to GDP is greater than one. Per capita GDP has a negative impact on FDI, which suggests that, even in Western Europe, foreign investors have favored countries with lower wages. Inflation is also negative, reflecting investor sensitivity to macroeconomic instability and the attendant risk of currency devaluation. The sign and magnitude of this coefficient will become important when we apply the coefficients of Equation 1 to transition-economy data because inflation was much

higher in transition economies than it was in West Europe. The coefficient for the telephone variable is positive, reflecting the importance of a good communications and transportation infrastructure in attracting FDI. The trade variable also has a positive and significant coefficient, suggesting that, at least in Western Europe, foreign investors are more interested in the possibility of exporting from their production facilities than in leapfrogging tariff barriers. Only the secondary education variable has an insignificant coefficient.⁷

To estimate the effects of transition on inflows of FDI, we use the parameters of Equation 1, which gives the expected FDI level for a non-transition, politically stable European market economy, to estimate the expected levels of FDI for a sample of transition economies that are experiencing less political instability than are the Balkan countries. The sample countries are the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and the Slovak Republic, and we estimate their expected levels of FDI for the period 1993 to 2001. We then define the transition shortfall in FDI for transition economy i in year t as:

$$R_{i,t} = FDI_{i,t} / \text{Expected}(FDI_{i,t}) \quad (5)$$

where $\text{Expected } FDI_{i,t}$ is calculated using the parameters of Equation 1 and the economic characteristics of country i in year t . Note that using the ratio of actual to expected FDI makes it unnecessary to account for country size.

Table 2 reports the expected and actual yearly FDI inflows for our sample of transition economies as well as the ratio of the two values, which is $R_{i,t}$, the indicator of the shortfall in FDI due to the effects of transition. The expected levels of FDI based on the parameter estimates of Equation 2 increase steadily for all transition economies, which shows the significant economic progress these countries have achieved in terms of the variables included in Equation 1. The expected level of FDI depends exclusively on the economic characteristics of these countries, and it does not take into account the progress that these countries have made in implementing transition measures and

⁷ This may be due to the fact that secondary school enrollments say little about the current quality of the labor force.

privatizing their economies, something that appears in the actual levels of FDI achieved. That the expected level of investment rises so quickly through the 1990s thus is a clear demonstration of the improved macroeconomic and foreign trade performance and structural maturation of the Central European transition economies.

Despite the rapid growth of actual FDI into the region, the results in Table 2 also show that the effects of transition on FDI are quite large and negative. Only Hungary in 1993 and 1995 experienced FDI inflows that were greater than what would be predicted by Equation 1. Most of the other transition economies in the sample achieved inflows that ranged between 20 percent and 30 percent of those that they would have experienced if they had been West European market economies. This, then, is the measure of the shortfall in FDI due to incomplete transition to a market economy. Among the more successful countries, there is no uniformity in trend in the value of R . The values of R decline for Hungary and Poland and follow a somewhat U-shaped curve for the Czech Republic and Estonia. Lithuania and, until 2000, Slovakia experienced much greater shortfalls in FDI from those predicted by Equation 2, reflecting their lower levels of appeal to foreign investors due to slower progress in transition. Nevertheless, as all the countries in our sample recorded rapid growth of FDI, albeit from low levels, their failure to exhibit strong secular growth of R , the ratio of actual to expected FDI, reflects the impressive progress these countries made in their macroeconomic fundamentals, that is, in the explanatory variables of Equation 1.

The rapid growth of expected FDI reported in Table 2 should be interpreted with some caution because foreign investors' behavior is driven by not only the levels of the explanatory variables of Equation 1 but also by their expected trends in the future. Since the limited time span of our sample does not allow us to investigate the dynamics of investor expectations, it may be that estimates of expected investment based only on the level of contemporaneous values of the explanatory variables may understate investor sentiments based on their expectations of future progress in these economies. Even with this caveat, however, Table 2 clearly demonstrates the very high costs of transition in terms

of low levels of achieved FDI to potential FDI, but it remains to be seen whether these shortfalls can be linked to the pace and pattern of structural change and reform in these countries.

Because Equation 1 already takes into account the effect of each country's economic characteristics on FDI inflows, the difference between actual and predicted FDI for our seven transition economies should reflect the different policy paths that these countries have taken toward creating a market economy characterized by private property. The pace and success of transition are likely to have played an important role in foreign investors' decisions on whether to invest in a particular transition economy given its macroeconomic characteristics and performance. Moreover, because many investments were made in some transition economies with a view to their future entry into the EU, faster progress on reform was seen by investors as signal that a country would be at the head of the queue for EU membership. The establishment of the rule of law also played an important part in investors' considerations, since the security of their investment was likely an important locational consideration. Finally, the pace of FDI should have been strongly influenced by the measures that were taken for privatization. Thus, we would expect that a country that has made greater progress in transition to a market economy should achieve inflows of FDI that are closer to its potential FDI inflows as given by Equation 1, and thus have a higher value for R , than would a country that has made little progress in transition.

To quantify the effects of the transition process on FDI inflows we use the widely used European Bank for Reconstruction and Development (EBRD) indexes of transition progress, supplemented by several other indicators, to estimate the following equation:

$$LR_{i,t} = \mathbf{b}_0 + \mathbf{b}_1 LLARGE_{i,t} + \mathbf{b}_2 LSMALL_{i,t} + \mathbf{b}_3 LPRICE_{i,t} + \mathbf{b}_4 LFOREX_{i,t} + \mathbf{b}_5 LCORR_{i,t} + \mathbf{b}_6 LBANK_{i,t} + \mathbf{b}_7 LPRIV_{i,t} + \mathbf{b}_8 ADJ_{i,t} + \mathbf{e}_{i,t} \quad (6)$$

where L is the log operator and

$LARGE_{i,t}$ = EBRD index of large-scale privatization in country i in year t

$SMALL_{i,t}$ = EBRD index of small-scale privatization in country i in year t

$PRICE_{i,t}$ = EBRD index of price liberalization in country i in year t

$FOREX_{i,t}$ = EBRD index of foreign exchange and trade liberalization

$PRIV_{i,t}$ = Share of private sector in the economy in country i in year t

$CORR_{i,t}$ = corruption index for country i in year t

$ADJ_{i,t}$ = 1 if country i is adjacent to EU, 0 otherwise

$BANK_{i,t}$ = EBRD index of banking sector reform in country i in year t and

$\hat{a}_{i,t}$ = error term.⁸

The EBRD indexes of privatization, with higher values indicating greater progress, measure progress with the privatization of large firms and of small firms, stores etc., respectively. Greater progress with large privatization could stimulate FDI, since investors will prefer to purchase the relatively large firms that such privatization would make available for sale. On the other hand, if large privatization progresses rapidly through a voucher scheme, this may serve to delay FDI inflows as domestic owners would have to organize themselves and take over their firms before being able to sell their holdings to foreigners. We also include three other EBRD indexes of progress on transition, those referring to price liberalization, foreign trade and foreign exchange, and banking and finance. As with the privatization indexes, higher values of the index signify greater progress in liberalization and reform, and progress on these should also encourage foreign investors. Not unsurprisingly, these reform indexes are highly correlated, and we thus limit the number we use in the regression.

Corruption is used as an explanatory variable because it is seen as a barrier to FDI both because it raises the cost of doing business in a country and because it creates additional uncertainty for the foreign investor. We use an index of corruption that is scaled so that higher values of the index indicate lower

⁸ The EBRD indexes and the PRIV measure were compiled from various issues of *Transition Report* and the corruption index from *Transparency International*, <http://www.transparency.org/>

levels of corruption. The PRIV variable captures the general property-rights orientation of the host country, in that the higher the share of the private sector in aggregate output, the greater is popular support for the market economy likely to be, and the more favorable the investment climate; it also indicates the amount of state-owned property that is potentially available for sale to foreign investors. Finally, we use a dummy variable to capture adjacency to the EU to see whether proximity to the EU market encourages foreign investors. The parameters of Equation 6 were estimated using data for the seven Central European countries listed in Table 2. The parameter estimates are reported in Table 3. The regression results yield a satisfactory R-squared and generally significant coefficients.

The only coefficient not significant is that for the large privatization index. This may reflect the fact that quick progress with the privatization of large firms through voucher privatization or by sale or lease to insiders may have hampered FDI because it put industrial property in the hands of domestic owners, thus precluding the timely sale of state-owned firms to foreign strategic investors.⁹ Progress in small privatization has a negative effect on FDI, perhaps because it serves as a proxy for the populist or insider-oriented nature of the privatization process. The share of the private sector in the economy also has a negative effect of FDI, because, as firms are increasingly in private hands, the sale of state-owned firms to foreign investors ceases to be a vehicle for FDI inflows. The coefficients for the indexes of liberalization in foreign trade and in banking are both positive and significant. Clearly, foreign investors are concerned that they be able to move capital in and out of the host country, to repatriate profits, and to import and export inputs and products to their affiliates with a minimum of interference. The coefficient for price liberalization is negative; conceivably, investors may view price liberalization as contributing to inflation, or they may view changing prices as a source of uncertainty about the long-term profitability of their investments. The coefficient of the corruption index is positive, meaning that, the less corrupt a host country is, the higher the level of FDI, a result consistent with most of the research on

⁹ The statistical insignificance of this coefficient may also be due to multicollinearity among the reform indexes.

the economic effects of corruption. Finally, host country adjacency to the EU has a positive influence on the volume of FDI.

With the parameters for Equations 1 and 6 at hand, we can estimate the effects of political instability on FDI inflows to Balkan countries. We first use the parameters of Equation 1 to estimate the FDI inflows into the Balkans that would be expected if they were normal European countries, undergoing no transition and no political instability. These estimated values of FDI are reported in the first row of each country's entry in Table 4. The expected FDI inflows for the Balkan countries increase over time, but, for most countries, changes in this variable are abrupt and sporadic, reflecting the fragility of economic stabilization and economic growth in the region. Many of the large changes in expected FDI can be attributed to the implementation of stabilization programs or to their collapse, both of which can have a quick impact on inflation, one of the key explanatory variables in Equation 1.

The second row for each country reports the actual FDI inflows. These also tend to vary considerably from year to year, in percentage terms much more so than do actual FDI inflows for the transition countries covered by Table 2. The source of this variability is partly the same as in other transition countries, the privatization of large state-owned assets such as banks, telecommunications companies, etc.¹⁰ Because there are fewer greenfield investments and acquisitions of medium and small-sized firms by foreign investors, these one-off large privatizations tend to dominate the data in way that we do not observe in Central European countries. In the Balkan countries there are additional sources of volatility, of which political instability is only one. Note, for example, the sharp drop in Albanian FDI inflows in 1997-1999 as a reaction to the crisis caused by the collapse of the financial pyramid schemes in 1997 and 1998 and the Kosovo crisis of 1999. A similar reduction in 1999 inflows can be seen for FYROM, Romania, and Slovenia. Another important source of variability is the major changes in privatization policy, which occurred in the Balkans during the mid-1990s, not at the beginning of the decade as in the Central European countries. Thus, the decision to push ahead with large privatization

¹⁰ See Hunya (2002) and Šohinger and Harrison (forthcoming).

transactions in Albania in 2000 and the change in policy in favor of foreign investors in 1998 in Croatia and in 1997 in Romania are amply evident in the data.

Row four for each country reports the value of R predicted for that country on the basis of the parameters of Equation 6 and the country's performance in implementing the transition. Note that the values of R predicted by Equation 6 are also subject to abrupt changes. This reflects the less stable reform environment in the Balkans. The EBRD indexes, which are the main explanatory variables in Equation 6, do not provide very fine calibrations of changes in transition achievements. Thus, the implementation of a major reform or set of reforms can cause a large change in the value of R predicted by Equation 6.¹¹

Because row one is the expected level of FDI for a non-transition country not impacted by political instability and the value of R predicted by Equation 6 and reported in row four for each country represents the fraction of that predicted FDI inflow that the country should obtain given its success in implementing transition policies, we multiply the FDI predicted by Equation 1 (row one) by the R predicted by Equation 6 (row 4) to obtain the level of FDI expected by each Balkan country if its FDI inflows were not affected by regional political instability. The difference between the FDI calculated in this way and reported in row 3 for each country and actual FDI is thus due to the effect of political instability in the region.¹² For Bosnia, Bulgaria, FYROM and Romania the costs of political instability are amply evident for the entire sample period. The former three countries' actual FDI falls far short of what would be expected of a "normal" transition economy, and Romania falls short for most years as well. The shortfall due to political instability is quite large, as the FDI inflows expected if these countries were merely in transition would be a multiple, and in some cases a large multiple, of the FDI inflows actually observed. Croatia and Slovenia display a somewhat different pattern. Their observed FDI inflows fall short of what is expected in the early part of the sample, perhaps reflecting the effects of the breakup of Yugoslavia on FDI inflows, but from the mid-1990s onward actual FDI inflows exceed

¹¹ The R for Bosnia is based on the average corruption index for all the Balkan countries as we could not obtain corruption data for Bosnia.

expected FDI. This reflects both policy changes in favor of FDI as well as investors' perceptions that these two countries were not likely to be negatively influenced by regional instability or by domestic political strife. Albania appears to be an outlier as its actual FDI inflows exceed the predicted levels, suggesting, rather implausibly, that Albania benefited from regional political instability. A more likely explanation is that, in the early years, FDI inflows, in any case quite small, were the result of investments by the many Albanians living and working abroad. In 2000 and 2001, the FDI inflows are driven by the one-off privatization of major banks, telecommunications firms and the sale of mining concessions.

IV. Conclusions and Policy Implications

Our research has demonstrated that both economic transition and political instability, whether of domestic origin or stemming from international conflicts and tensions, both serve to reduce FDI inflows into the transition economies of Central Europe and the Balkans. Moreover, our results indicate that a large part of the shortfall in FDI into the Balkan transition economies, whether measured relative to the Central European economies or to a hypothetical European market economy, is, in fact, attributable to the effects of regional political instabilities on the willingness of foreign investors to invest in these countries. Although our estimates of expected FDI have to rely on a static view of foreign investor behavior, which may somewhat understate our estimates of the negative effects of transition and instability on FDI, the general goodness of fit achieved in Equations 1 and 6 suggests that the orders of magnitude of our estimates of the FDI shortfall are relatively robust.

While it is beyond the scope of this paper to quantify the economic costs of foregone FDI inflows for the Balkan countries, the literature on the effects of FDI on transition economies suggests that these costs must be quite high because of the important benefits that FDI brings. The most obvious one is that FDI can serve as a supplement to domestic saving and investment, and all transition economies sorely need additional investment to raise their productivity and living standards. It is true that much of the FDI

¹² Missing variables, such as changes in privatization policy or foreign assistance and time lags between changes in

that has come into transition economies has been used to purchase existing firms rather than to finance new greenfield investments. Nevertheless, even FDI for mergers and acquisitions has a positive effect on domestic capital formation (Šohinger and Harrison, forthcoming) because investors do contribute additional capitalization to their acquisitions. Moreover, as Hunya (1996) shows in the case of Hungary, foreign firms have higher profits and reinvest a much higher share of it than do domestically-owned firms, thus increasing capital formation in the future. Finally, there is little crowding out of domestic investors Misun and Tomšík (2002). Given the low savings rates in many of the Balkan countries, larger FDI inflows would thus have made an important contribution to economic growth. Another benefit of FDI is that it brings in new technology and managerial skills. Thus, foreign-owned firms are likely to be more productive (Hunya, 1996, Sgard, 2001) and to use more advanced technologies (Voicu, forthcoming). Moreover, there are likely to be important spillovers of these technologies and managerial skills from foreign-owned firms to the domestic economy.¹³

As a result, it is likely that the costs of lost FDI to the Balkan economies are of a magnitude that is much greater than the shortfalls that we have shown in our study. Consequently, the restoration of peace to the region and the elimination of tensions, both internal and among the countries of the region, should bring important economic benefits.

country characteristics and the perceptions of foreign investors also drive these differences.

¹³ Fan (2002) provides a useful survey of the literature on technology spillovers in transition economies. Aitken and Harrison (1999), Blomstrom and Persson (1983) provide useful case studies.

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Table 2: Predicted and Actual FDI Inflows in Transition Economies (billion US \$)										
	FDI	1993	1994	1995	1996	1997	1998	1999	2000	2001
<i>Czech Rep.</i>	Predicted by Eq. 1	n.a.	4.17	7.16	9.41	12.56	16.16	25.42	24.56	25.45
	Actual	0.65	0.87	2.56	1.43	1.30	3.72	6.32	4.99	4.92
	Actual/Predicted (R)	n.a.	0.209	0.356	0.152	0.104	0.230	0.249	0.203	0.193
<i>Estonia</i>	Predicted by Eq. 1	0.40	0.68	0.92	0.77	1.20	1.52	1.81	2.15	1.71
	Actual	0.16	0.21	0.20	0.15	0.27	0.58	0.31	0.39	0.54
	Actual/Predicted (R)	0.400	0.309	0.217	0.195	0.225	0.382	0.171	0.181	0.316
<i>Hungary</i>	Predicted by Eq. 1	0.85	1.32	2.32	3.5	5.75	8.48	10.96	13.25	13.67
	Actual	2.34	1.15	4.45	2.28	2.17	2.04	1.94	1.64	2.41
	Actual/Predicted (R)	2.753	0.871	1.918	0.651	0.377	0.241	0.177	0.124	0.176
<i>Latvia</i>	Predicted by Eq. 1	1.93	1.25	1.47	2.22	2.54	3.3	3.09	2.95	2.77
	Actual	0.04	0.21	0.18	0.38	0.52	0.36	0.35	0.41	0.20
	Actual/Predicted (R)	0.021	0.168	0.122	0.171	0.205	0.109	0.113	0.139	0.072
<i>Lithuania</i>	Predicted by Eq. 1	2.4	2.27	3.08	4.43	7.49	7.78	10.65	11.69	11.95
	Actual	0.03	0.03	0.07	0.15	0.35	0.93	0.49	0.38	0.45
	Actual/Predicted (R)	0.013	0.013	0.023	0.034	0.047	0.120	0.046	0.033	0.038
<i>Poland</i>	Predicted by Eq. 1	2.85	4.08	5.78	9.25	15.45	25.29	28.69	33.89	44.2
	Actual	1.72	1.88	3.66	4.5	4.91	6.36	7.27	9.34	8.83
	Actual/Predicted (R)	0.604	0.461	0.633	0.486	0.318	0.251	0.253	0.275	0.200
<i>Slovak Rep.</i>	Predicted by Eq. 1	n.a.	1.97	3.03	4.33	5.08	6.25	5.04	6.13	6.90
	Actual	0.17	0.25	0.20	0.25	0.22	0.68	0.39	2.08	1.48
	Actual/Predicted (R)	n.a.	0.127	0.066	0.058	0.043	0.109	0.077	0.339	0.214

Table 3. Parameter Estimates for Equation 6

(Dependent Variable: Log R)

	C	LLARGE	LSMALL	LPRICE	LCORR	LPRIV	LFOREX	LBANKIN	ADJ
Coeff.	8.93	0.83	-6.13	-7.48	1.04	-3.56	9.47	4.41	0.54
t-stat	2.12***	1.13	-3.51*	-2.72*	2.38**	-3.07*	4.68*	4.58*	2.57**

$\bar{R}^2 = 0.63$ F-stat. = 11.33
Prob (F-stat) = 0.000

*= significant at 1%
**= significant at 2.5%
***= significant at 5%

Table 4: Predicted and Actual FDI Inflows in Balkan Transition Economies (billion US \$)										
	FDI	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania	Predicted by Eq. 1	0.014	0.0128	0.016	0.03	0.023	0.038	0.289	0.566	0.277
	Actual FDI	0.068	0.053	0.070	0.090	0.048	0.045	0.041	0.143	0.181
	Predicted FDI	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.014	0.010
	R Predicted by Eq. 6	0.031	0.093	0.015	0.007	0.007	0.007	0.007	0.025	0.035
Bosnia	Predicted by Eq. 1					0.489	0.793	2.351	0.827	1.011
	Actual FDI					0.001	0.055	0.149	0.131	0.164
	Predicted FDI					0.114	0.623	1.883	0.277	0.091
	R Predicted by Eq. 6					0.234	0.786	0.801	0.335	0.090
Bulgaria	Predicted by Eq. 1					6.075	16.502	29.221	26.174	29.434
	Actual FDI					0.505	0.537	0.819	1.000	0.689
	Predicted FDI					3.542	7.228	12.419	6.988	8.801
	R Predicted by Eq. 6					0.583	0.438	0.425	0.267	0.299
Croatia	Predicted by Eq. 1	0.348	0.958	2.848	2.972	3.343	2.666	3.063	2.866	2.936
	Actual FDI	0.120	0.117	0.121	0.516	0.551	1.010	1.640	1.130	1.440
	Predicted FDI	0.003	0.251	0.652	0.196	0.157	0.125	0.168	0.662	0.716
	R Predicted by Eq. 6	0.008	0.262	0.229	0.066	0.047	0.047	0.055	0.231	0.244
FYROM	Predicted by Eq. 1		0.159	0.354	0.469	0.876	1.253	3.045	1.542	4.167
	Actual FDI		0.024	0.010	0.012	0.016	0.118	0.032	0.178	0.530
	Predicted FDI		0.024	0.194	0.163	0.305	0.311	0.755	0.382	0.758
	R Predicted by Eq. 6		0.148	0.549	0.348	0.348	0.248	0.248	0.248	0.182
Romania	Predicted by Eq. 1	2.068	2.746	6.153	7.052	6.670	7.238	11.469	17.421	20.278
	Actual FDI	0.094	0.341	0.419	0.263	1.220	2.030	1.040	1.031	1.143
	Predicted FDI	0.039	4.569	15.063	0.367	1.381	0.709	1.124	1.638	0.730
	R Predicted by Eq. 6	0.019	1.664	2.448	0.052	0.207	0.098	0.098	0.094	0.036
Slovenia	Predicted by Eq. 1	0.239	0.345	0.536	0.605	0.611	0.636	0.601	0.546	0.575
	Actual FDI	0.113	0.128	0.177	0.194	0.352	0.248	0.181	0.176	0.442
	Predicted FDI	0.270	0.256	0.351	0.359	0.142	0.148	0.213	0.121	0.120
	R Predicted by Eq. 6	1.130	0.743	0.655	0.594	0.233	0.233	0.355	0.221	0.208

Figure 1. FDI Inflows in Selected Transition Economies

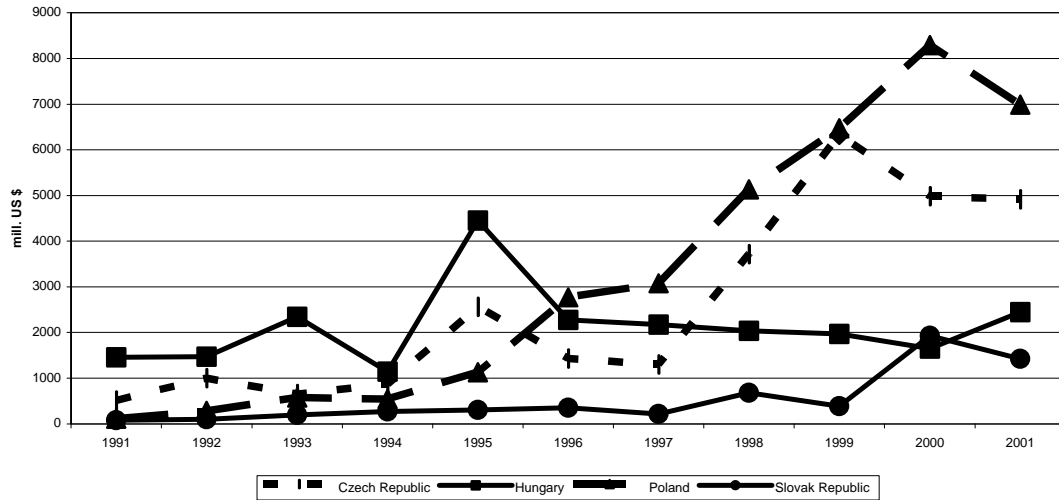
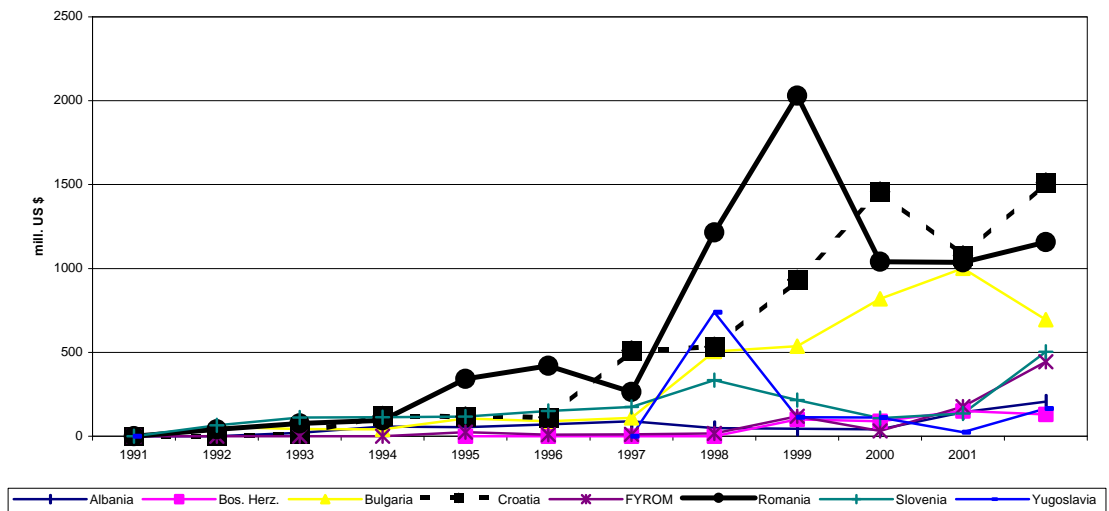


Figure 2. FDI Inflows for Balkan Transition Economies



Sources for Figs. 1-6: United Nations Economic Commission for Europe, *Economic Survey of Europe*, 2003. United Nations: Geneva, 2003 and United Nations Development Program, *Human Development Report*, 2003. New York and Oxford: Oxford University Press, 2003.

Figure 3. Transition Economies' Total 1991-2001 FDI to \$1000 GDP (in US\$)

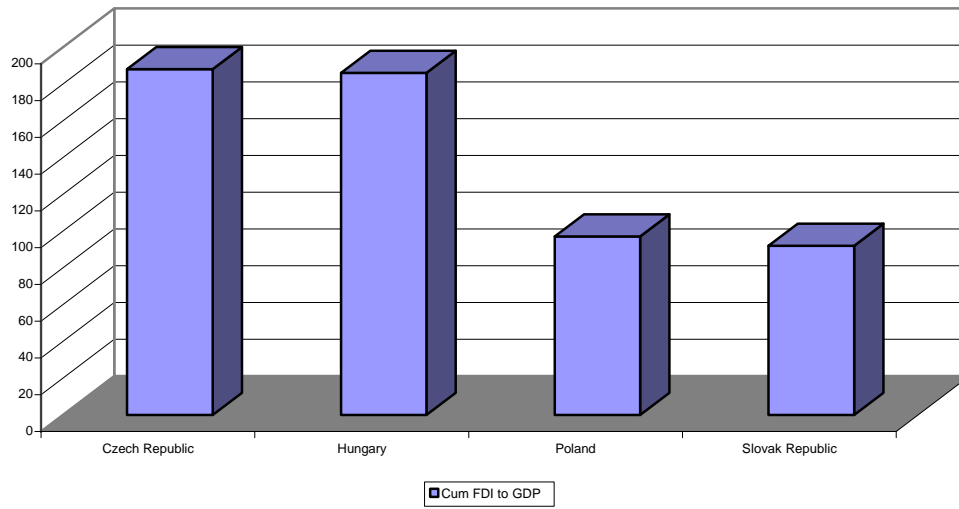


Figure 4. Total 1991-2001 FDI per Head (US\$) in Central Europe

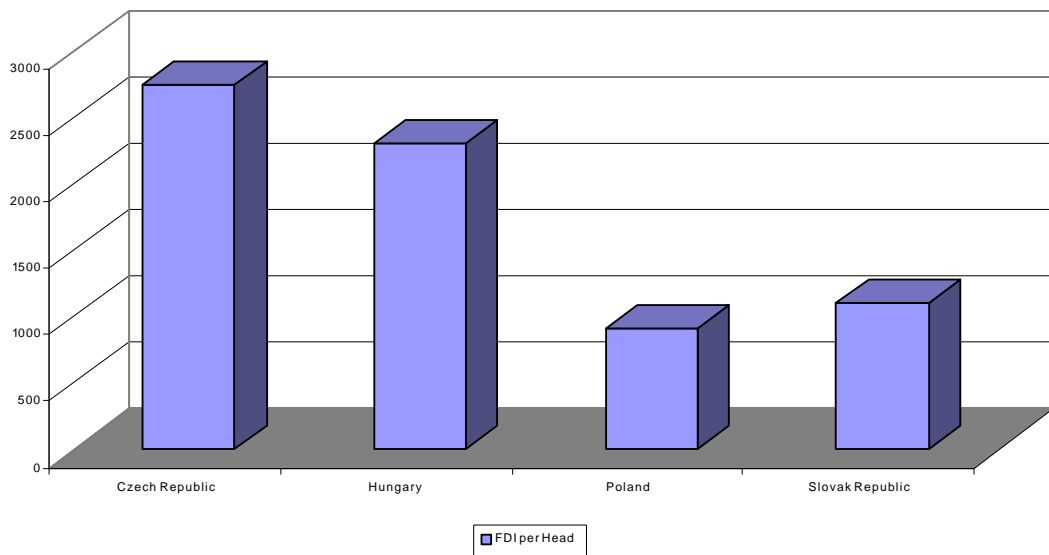


Figure 5. Total 1991-2001 FDI to \$1000 GDP In Selected Balkan Countries

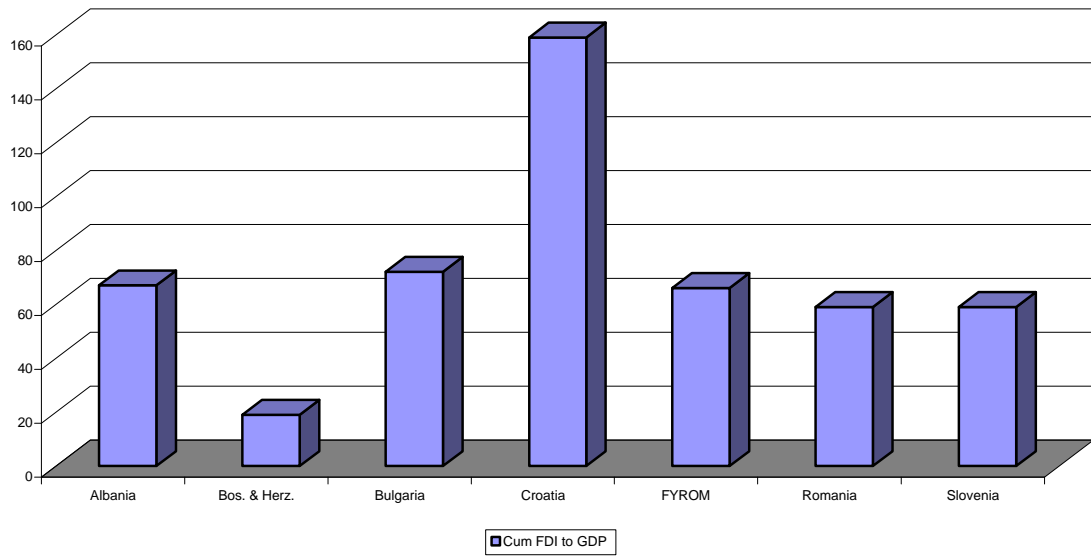
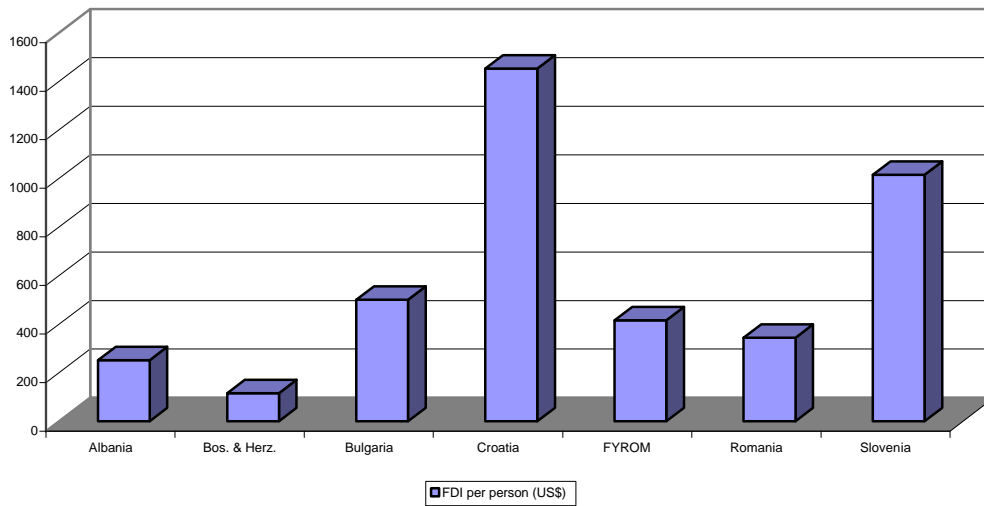


Figure 6. Total FDI per Person (US\$) In Selected Balkan Countries



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