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Foreign Direct Investment in
Southeastern Europe:
How (and How Much) Can Policies Help?

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Abstract

Gravity factors explain a large part of Foreign Direct Investment (FDI) inflows in Southeastern Europe—a region not comprehensively covered before in econometric studies—but host-country policies also matter. Key are policies that affect relative unit labor costs, the corporate tax burden, infrastructure, and the trade regime. This paper develops the concept of potential FDI for each country, and uses its deviation from actual levels to estimate what policies can realistically be expected to achieve in terms of additional FDI. It also finds evidence that above a certain threshold, the importance of some policies for attracting FDI is distinctly different.

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I. INTRODUCTION: WHY ANOTHER PAPER ON FOREIGN DIRECT INVESTMENT?

Foreign direct investment (FDI), its determinants, and its effects have been extensively studied. It has long been recognized that the benefits of FDI for the host country can be significant, including knowledge and technology transfer to domestic firms and the labor force, productivity spillovers, enhanced competition, and improved access for exports abroad, notably in the source country. Moreover, since FDI flows are non-debt-creating, they are a preferred method of financing external current account deficits, especially in developing countries, where these deficits can be large and sustained. At the same time, FDI can be a mixed blessing. In small economies, large foreign companies can—and often do—abuse their dominant market positions and, especially in developing countries, attempt to influence the domestic political process. Large investors are sometimes able to coax concessions from country governments in return for locating investment there, and aggressively use transfer pricing to minimize their tax obligations. FDI can also give rise to potentially volatile balance of payment flows.[2] On balance, however, the consensus view in the literature is that the benefits of FDI tend to significantly outweigh its costs for host countries. Graham (1995), Borensztein, De Gregorio, and Lee (1995), and Lim (2001), to name but a few, provide useful overall surveys of the literature on the impact of FDI on the host country. Holland and Pain (1998) presents the evidence on diffusion of innovation, and Javorcik (2004), Javorcik, Spaggi, and Spartarenu (2004), and Alfaro and others (2003) discuss productivity spillovers. Finally, Lipschitz, Lane, and Mourmouras (2002) presents a theoretical overview of the policy implications of large capital flows, including FDI.

The case for FDI is particularly compelling in transition economies. The need for extensive enterprise restructuring and modernization in view of limited domestic resources creates an environment where the potential benefits of FDI are especially valuable. Also, transition economies are well placed to benefit from the technology and knowledge transfer associated with FDI: they are relatively developed and possess a highly educated labor force. (The aforementioned study by Borensztein, De Gregorio, and Lee (1995) finds that the net positive impact of FDI on growth is larger when the host country labor force is highly educated.) Finally, the balance of payments crises of the 1980s and 1990s have highlighted the importance of non-debt-creating capital flows for external sustainability during the transition process (which is underscored by the evidence presented in Frankel and Rose, 1996). As a result, attracting FDI has become a prominent item on the policy agenda, especially in transition economies, and research on the determinants of FDI has been expanding rapidly.

So why another paper on FDI?

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[2] In addition to large, lump-sum inflows, FDI can also cause outflows related to profit or capital repatriation. Paradoxically, the most investor-friendly host countries may be at a higher risk of such outflows when parent firms are in distress or regional contagion raises perceived risk because they have more liquid capital markets and minimal obstacles to capital and current transactions (see Lehman, 2002; Lehman and Mody, 2004).

- *First*, because the proliferating "initiatives" to attract or promote FDI that are often enthusiastically supported by donors and international organizations, though well-intentioned, may overestimate the impact of policies and sometimes rest on false premises. The extensive literature reviewed in the following section, as well as our own findings, suggest that factors outside the reach of policymakers are at least as important as policies in influencing FDI and that the impact of some policies widely seen as good for the economy as a whole may not stimulate FDI to any significant extent. Reassessing the received wisdom can thus contribute to more realistic and better-targeted policies.

- *Second*, because the existing empirical literature focuses on the analysis of total FDI flows, including those for privatization. In transition economies, however, privatization-related FDI flows can be sizable, lumpy, and time-bound; and their inclusion in the analysis may distort the results. We correct for privatization-related foreign inflows and examine the determinants of "underlying" FDI.

- *Third*, because the prevailing empirical approach implicitly assumes that policies to attract FDI in each host country operate in a vacuum. In reality, there are limits to how much policies can be adjusted, and these limits are often given by what neighbors and competitors are doing. We develop a technique to measure what policies can realistically be expected to achieve in terms of additional FDI in this environment.

- And *fourth*, because Southeastern Europe is largely absent from the existing literature, in part owing to the lack of comparable data.[3] Of over 40 original empirical studies we reviewed, only four cover some of the Southeastern European countries, and the coverage is patchy and inconsistent. Our paper covers all seven Southeastern European countries and compares their experiences with that of their neighbors in Central Europe, the Baltics, and the member countries of the Commonwealth of Independent States.

II. THE RECEIVED WISDOM: FINDINGS OF PREVIOUS EMPIRICAL RESEARCH INTO THE DETERMINANTS OF FOREIGN DIRECT INVESTMENT

The existing empirical literature on the determinants of FDI can be categorized into two groups: studies focusing on aggregate, economy-wide FDI flows and microeconomic (firm- or sector-level) studies, building on the work of R. Vernon (1966). In this section, we concentrate on the former, with emphasis on research covering transition economies.

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[3] We include in Southeastern Europe Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia (hereinafter referred to as FYR of Macedonia), Serbia and Montenegro (which are sometimes collectively referred to as the Western Balkans), as well as Bulgaria and Romania.

To interpret the findings of the literature on the determinants of FDI, it is useful to keep in mind the distinction between two types of FDI identified in theory—although in real life this distinction is often blurred. Horizontal FDI (HFDI) is market-seeking investment, aimed primarily at the domestic market in the host country, when local production is seen as a more efficient way to penetrate this market than exports from the source country. Vertical FDI (VFDI) is cost-minimizing investment, when a multinational corporation chooses the location of each link of its production chain to minimize global costs. As a result of these differences in motivation, a number of host country factors, such as market size, trade restrictions, and transport costs, can have different effects on HFDI and VFDI. There is broad agreement that HFDI is more prevalent (Navaretti and Venables, 2004). However, there is also evidence that the recent surge in FDI flows to developing countries, in particular, was mainly VFDI (Hanson, Mataloni, and Slaughter, 2001; Markusen and Maskus, 1999). Both types of FDI are, in principle, subject to "agglomeration," that is, clustering in certain locations—where the existing business infrastructure is set up to serve a particular industry or the presence of other investors provides positive externalities through network effects or backward and forward linkages—and "herding," where investors tend to follow a leader that establishes operations in a particular country. FDI related to exploiting abundant natural resources does not easily lend itself to categorization into vertical or horizontal FDI.

Virtually all empirical studies[4] find that gravity factors (market size and proximity to the source country) are the most important determinants of FDI. Just as with trade flows (Breuss and Egger, 1999; Di Mauro, 2000; Feenstra, Markusen, and Rose 2001), the gravity model consistently explains about 60 percent of aggregate FDI flows, regardless of the region. Since gravity factors are exogenous, this finding puts into perspective the efforts of policymakers in host countries to attract FDI.

The policy environment, of course, does matter for FDI. At a very general level, a predictable policy environment that promotes macroeconomic stability, ensures the rule of law and the enforcement of contracts, minimizes distortions, supports competitiveness, and encourages private sector development can be expected to stimulate *all* private—including foreign—investment. But when empirical studies attempt to estimate the impact of individual policies on FDI, the results are often ambiguous.

Trade policies and, more broadly, trade costs (tariffs, nontariff barriers, and transportation costs) are generally found to have a significant impact on FDI flows, but in aggregate regressions their sign is ambiguous. This is probably due to the different effect barriers to trade can be expected to have on horizontal and vertical FDI: they tend to attract HFDI, which aims at penetrating the

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[4] Lankes and Venables (1996) and Lim (2001) provide useful overall surveys. Singh and Jun (1996) report the evidence on a large sample of developing countries. Estrin, Hughes, and Todd (1997), Claessens, Oks, and Polastri (1998), Brenton (1999), Bevan and Estrin (2000), Resmini (2000), Carstensen and Toubal (2004); and Jannicki and Wunnava (2004) are among the most important studies focusing particularly on transition economies.

domestic market, but repel VFDI. At the aggregate level, the sign would thus depend on which kind of FDI is prevalent in the particular host country. Empirical studies that look separately at horizontal and vertical FDI tend to support this hypothesis: Brainard (1997) finds that freight costs and tariffs have a positive effect on HFDI; Barrell and Pain (1999) report a similar result for protectionist measures; and Markusen and Maskus (1999), decomposing the sales of foreign-owned firms in the host country, find that higher trade costs stimulate HFDI and deter VFDI.

The evidence on the impact of tax policies on FDI is evolving. Earlier studies found only a negligible effect (and, at times, with the "wrong" sign—Brainard, 1997). But more recent work shows increasing evidence that a low tax burden attracts FDI (for instance, Hines, 1999). The responsiveness to tax policies may have increased in recent years if VFDI, which is mainly driven by the relative cost of production, is becoming more prominent. The evidence on tax incentives is not conclusive, but there are some indications that transparent and simple tax systems tend to be most attractive for FDI (Hassett and Hubbard, 1997). This is also supported by an Organization for Economic Cooperation and Development (OECD) study on the use of tax incentives for investment (Box 1).

Box 1. OECD Study on Use of Tax Incentives for Investment

This study (OECD, 2003) found tax incentives generally inefficient in promoting investment. It argued that multinational companies have significant scope in effectively setting their own tax burden through aggressive and sophisticated tax planning. As a result, specific tax incentives, such as tax holidays or exemptions, run the risk of being abused or ignored, or even proving counterproductive (when they are nontransparent, are changed often, or involve large administrative discretion). The study recommended lowering labor taxes and allowing general accelerated depreciation combined with five-year loss carry-forward rules for both domestic and foreign investors. It also suggested strengthening thin-capitalization rules (to avoid the showing of capital investment as debt to reap tax advantages) and regulations on transfer pricing (to counter the most egregious examples of tax planning). Finally, it advised against (i) multiple tax incentives to avoid the possibility of their "stacking"; (ii) special economic zones, which often result in distorting the location decisions of foreign investors; and (iii) "non-automatic" criteria involving administrative decisions for triggering tax relief eligibility, in order to minimize the scope for rentseeking and corruption.

There is evidence that regional integration reduces HFDI—certainly flows within the area where integration takes place—and stimulates VFDI. In the context of transition economies, studies generally find that steps toward integration with the EU have a positive effect on FDI flows (Braconier and Ekholm, 2002, Bevan, Estrin, and Grabbes 2001). These results, however, need to be interpreted with caution: it is not clear that they capture the effect on FDI of increasing regional integration rather than the prospect of greater political and institutional stability expected to accompany accession to the European Union.

Low institutional development, structural rigidities, and poor governance can be thought of as a tax on investment, as shown by Wei (2000). A wide variety of indicators have been used in empirical studies as proxies for these underlying factors, such as the Index of Economic Freedom computed by the Heritage Foundation, the European Bank for Reconstruction and Development (EBRD) indices on progress in transition or the quality of institutions, dummies for the method of privatization, and various country risk indicators. While most studies on the

determinants of FDI find some of them to be significant, these proxies are particularly susceptible to being correlated with other underlying explanatory factors and their statistical significance can thus be hard to interpret.

The evidence on production costs and factor endowments is mixed. Labor costs are often not found significant, due perhaps to the difficulties in measuring accurately productivity differentials. Labor skills, on the other hand, have generally positive effects on FDI. Skill-rich countries also tend to attract high-skill industries. Marin (2004) finds that Austrian and German companies are outsourcing the most skill-intensive activities into Central and Southeastern European countries to take advantage of their relatively inexpensive skilled labor.

Some studies find agglomeration and herding to be important (Barrel and Pain, 1999; Campos and Kinoshita, 2003), but further research is needed to separate spurious from real correlation. Agglomeration effects are most commonly proxied by the quality of infrastructure, degree of development, and lagged stock of FDI, but these variables may influence FDI through other channels as well. Finally, Bevan and Estrin (2000) report some evidence of feedback effects (FDI contributing to changes in the host environment that, in turn, stimulate more FDI) that might explain the emergence of leaders and laggards among host countries.

The coverage of Southeastern European countries in the empirical literature is scant, mainly owing to lack of data. A number of papers provide stylized facts on FDI to Southeastern Europe (Lankes and Venables 1996; Hunya, 2004; European Commission, 2004). A handful of econometric studies focusing mainly on Central Europe include one or two countries from Southeastern Europe in the sample, typically Bulgaria and Romania, the two long-standing EU accession candidates from this region.[5] Only four studies (Christie, 2003; Garibaldi, 2002; Deichmann, 2001; Holland and Pain, 1998) cover more than these two Southeastern European countries, and the coverage is not uniform. None of them covers all seven.

The findings of this relatively small body of research are generally in line with those of the broader literature reviewed above. Gravity factors are important determinants of FDI. Labor costs and institutional variables (various indicators of progress in transition, the method of privatization, index of economic freedom, political stability, and progress in EU accession) also play a significant role. However, openness to trade, the tax regime, and infrastructure are statistically significant only in some of the studies. Christie (2003) examines whether horizontal or vertical FDI is predominant in the region and reports that in Central European economies HFDI is prevalent but that the evidence for Southeastern European countries is inconclusive.

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[5] Croatia is now also formally an EU candidate country.

III.   FOREIGN DIRECT INVESTMENT IN SOUTHEASTERN EUROPE: THE EVIDENCE

A.   Size and Distribution of FDI

There is clear evidence that Southeastern European countries as a group generally lag behind Central European countries in attracting FDI. This conclusion holds regardless of what metric is used to compare FDI across these two groups of countries. Starting with the most straightforward comparison, Figure 1 compares absolute levels of FDI stock at the end of 2003 (the key to country labels in the Figures can be found in Appendix I). Within the Southeastern European group, there is considerable differentiation, with Romania and Croatia having attracted more than their peers.

Figure 1. Total FDI Stock, 2003
(In billions of U.S. dollars)

Source: United Nations Conference on Trade and Development (UNCTAD) database.
Note: See Appendix I for country abbreviations.
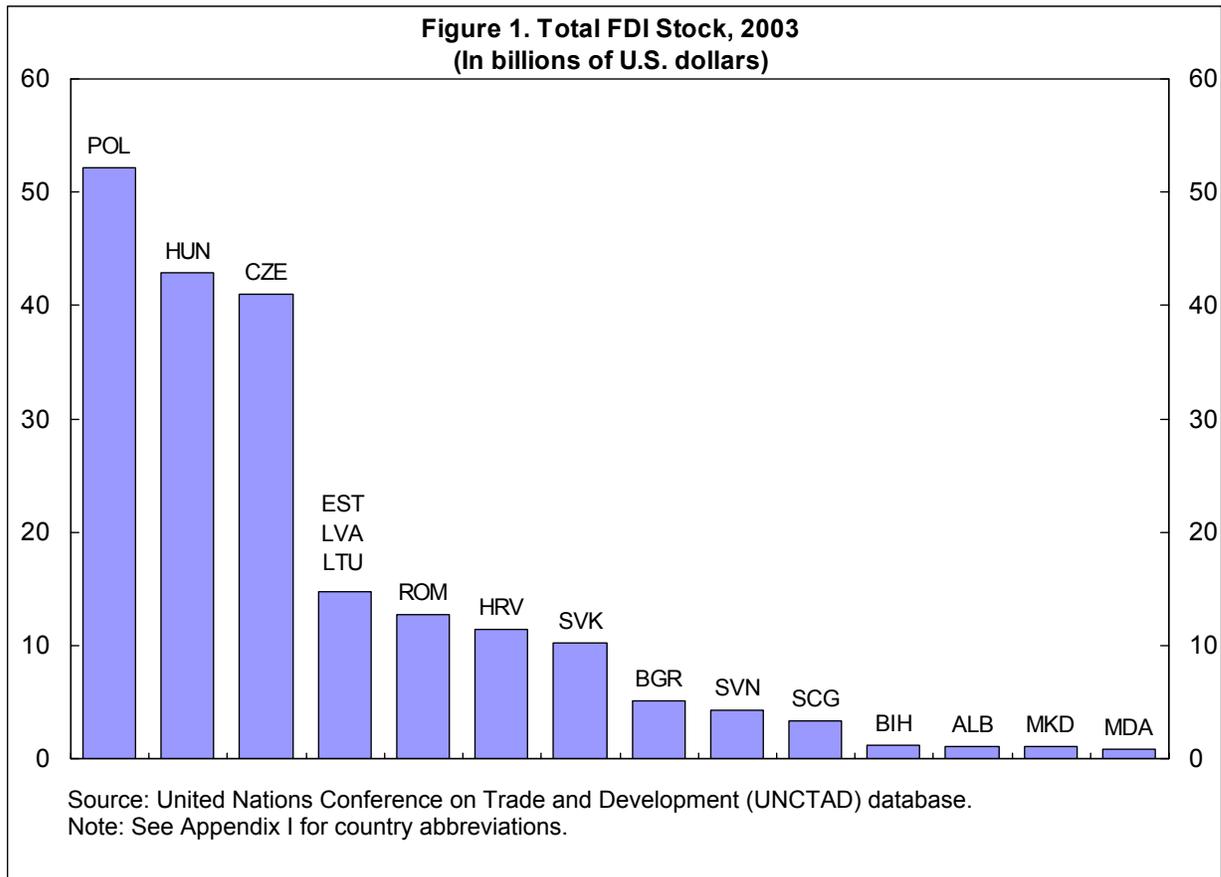
Additional insight is provided by Figure 2, which pairs countries' per capita FDI stocks with their ranking (both in logs). The Figure imposes no assumptions, yet four distinct clusters emerge: two Central European countries (the Czech Republic and Hungary) lead the way, followed by Croatia, Slovenia, the Slovak Republic, the Baltics (Estonia, Latvia, and Lithuania) and Poland; then comes an "intermediate" cluster with, Bulgaria, Romania, and FYR of Macedonia; and finally the "laggards" (Albania, Serbia and Montenegro, Bosnia and Herzegovina, and Moldova).

Figure 2. FDI Clusters in Central and Southeastern Europe
(Logs of Total FDI per Capita in U.S. dollars and of Country Rank)
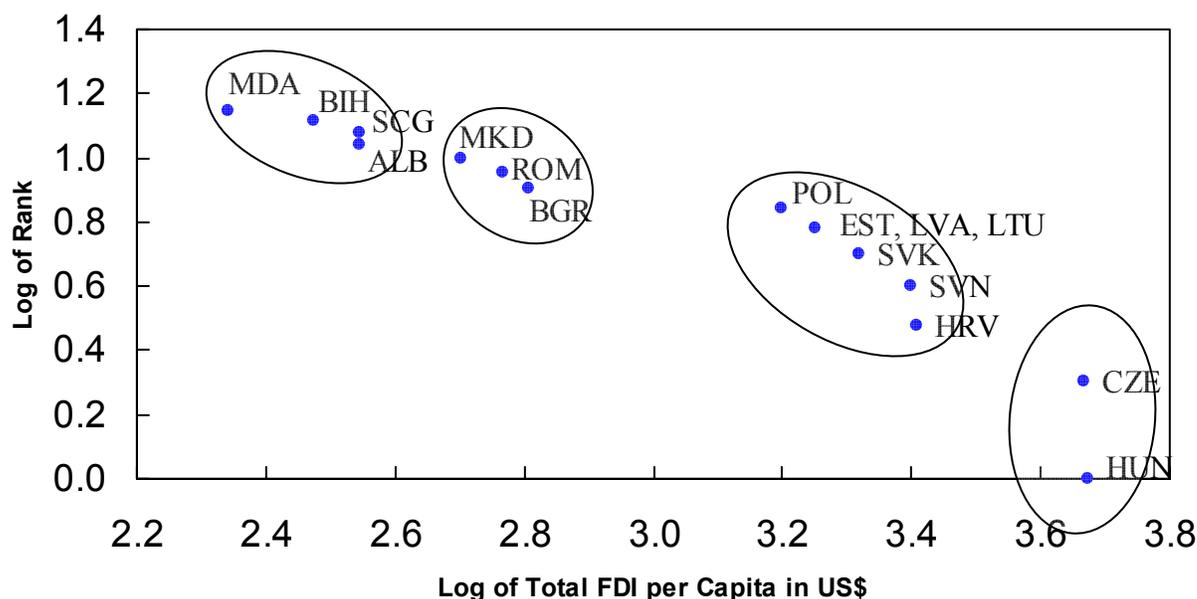
Source: UNCTAD database, and IMF staff calculations.
Note: See Appendix I for country abbreviations.

FDI flows into all these economies since the beginning of transition were closely associated with the privatization process. Privatization-related FDI is arguably a special case, not determined (or not influenced to the same extent) by the same variables as "underlying" FDI.[6] Because consistent data on privatization-related FDI are not available for all these countries, Figure 3 uses data on cross-border mergers and acquisitions as a proxy.[7] While looking only at non privatization-related FDI changes the ranking of some individual countries, the broad picture remains the same.

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[6] The concept of "underlying" FDI is broader that the commonly-used term "greenfield" FDI. Non privatization-related FDI can take the form of "greenfield", "brownfield" (i.e., new foreign investment into existing private firms) or equity participation.

[7] This is the only proxy of privatization-related FDI available for all countries in our sample on a comparable basis, but it is an imperfect one. Mergers and acquisitions data are from the United Nations Conference on Trade and Development (UNCTAD) (*www.unctad.org*) and include purchases via the domestic and international capital markets. Because some of these transactions, depending on the share acquired in the domestic company, may not be included in national FDI statistics, the two data sources are not entirely consistent.

The country ranking also is influenced by the size of these economies. Figure 4 adjusts for scale by showing the stock of aggregate FDI at end-2003 in per capita terms. While the ranking of some countries changes (Croatia moves up the rank; Poland is ranked between the Slovak Republic and the Baltics; Romania moves several notches down), Southeastern European countries—except for Croatia—still lag well behind their Central European neighbors. A per capita FDI stock of about US$1,000 provides a clear demarcation line between the two groups.

Figure 3. Privatization and Non-Privatization-Related FDI Stock, 2003
(In billions of U.S. dollars)

Source: UNCTAD database, and IMF staff calculations.
Note: See Appendix I for country abbreviations.

Figure 4. FDI Stock Per Capita, 2003
(in U.S. dollars)

Source: UNCTAD database, and IMF staff calculations.
Note: See Appendix I for country abbreviations.
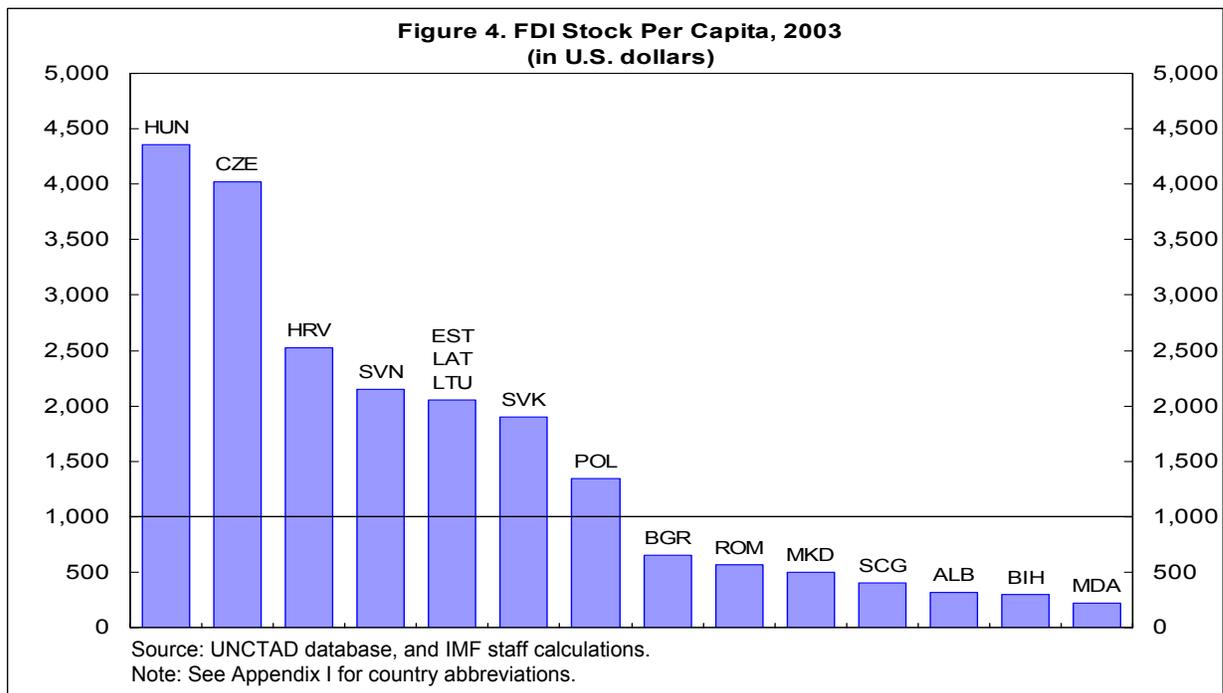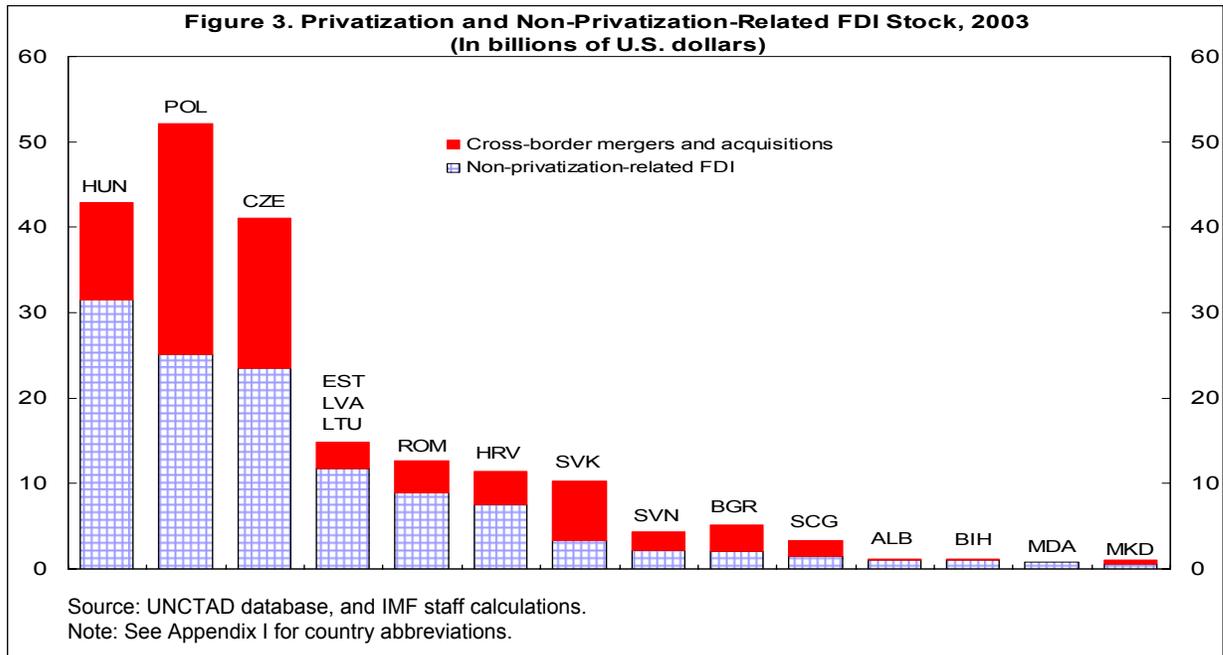
Turning finally to the sources of FDI flows to the region, Figure 5 provides two interesting insights. First, the sources of FDI are highly concentrated: Germany, Austria, Italy, and Greece are among the top five sources for almost all Southeastern European countries. This, as well as the case of Moldova, where FDI originates mostly in Russia, provides strong prima facie support to the hypothesis that gravity variables—in particular, proximity—play a major role in determining FDI flows. Second, some of the more advanced countries in the region, themselves important

Figure 5. FDI: Top Five Source Countries
(2003 stock in U.S. dollar million)
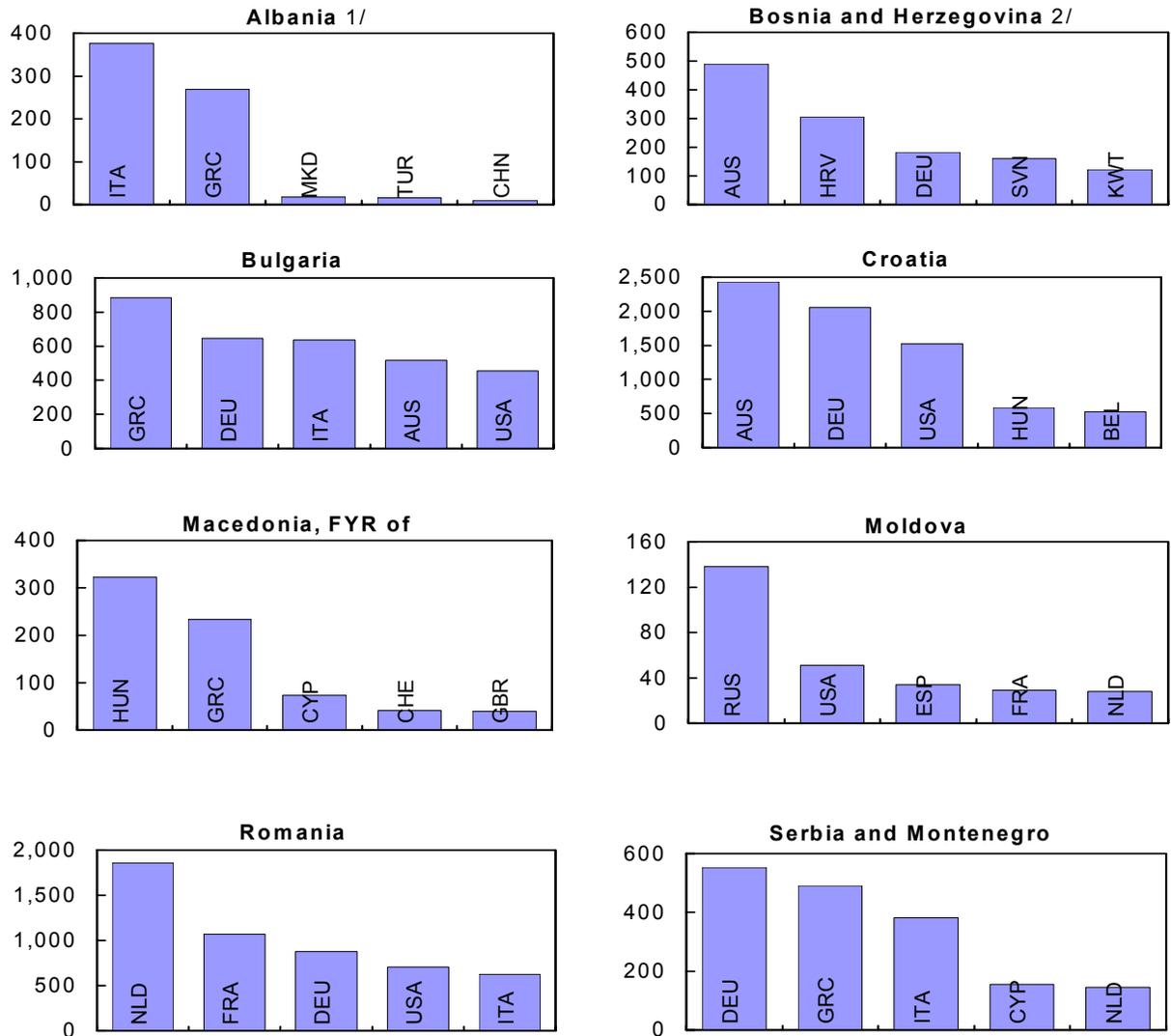
Sources: The Vienna Institute for International Economic Studies (WIIW); and Hunya (2004).
Note: See Appendix I for country abbreviations.

1/ End-2001 stock.
2/ Data for Bosnia and Herzegovina are for 2004

 hosts of FDI flows from Western Europe, are gradually emerging as sources of FDI in the less advanced Southeastern European countries (Bosnia and Herzegovina, the FYR of Macedonia).[8]

B. Policy Environment

The successful transition experience of Central European countries and the Baltics, attributed to some extent to their ability to attract large amounts of foreign investment at an early stage, has drawn attention to the importance of the policy environment and catalyzed efforts to encourage FDI flows in Southeastern Europe.

The policy environment in Southeastern European countries has been steadily—if unequally— improving in recent years. All countries have made significant progress in bringing down inflation; promoting private sector development through privatization, deregulation, and a better business environment; and improving public administration. These policies, though not specifically targeted to FDI, are doubtless encouraging foreign investment.

Weaknesses, however, still remain in a number of areas. Perhaps the most fundamental relate to governance and the business environment. All Southeastern European countries, each to a different degree, need to make further efforts to simplify complex tax and customs laws and regulations, facilitate access to land and construction permits, strengthen the judiciary, accelerate the resolution of commercial disputes, and eliminate remaining discriminatory provisions against foreign investors. A joint IMF-World Bank paper taking stock of macroeconomic policies and structural reforms in Southeastern Europe since the end of the Kosovo conflict (Demekas et al., 2002) provides a more detailed discussion of the outstanding agenda in these areas for the countries in the region. A broader but more recent overview is provided in World Bank (2005).

For reasons both political (the need to expand regional cooperation following the wars of succession of former Yugoslavia) and economic (the desire to avoid a "beggar-thy-neighbor" policy to attract FDI through tax and other incentives), Southeastern European countries have adopted a regional approach to shaping the investment environment (Box 2).

These policies are desirable in themselves and may have generally beneficial effects on the economies of Southeastern Europe. But given the evidence on the preponderance of gravity factors in determining FDI flows, how much additional FDI can they be expected to generate? This question is tackled in the following sections.

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[8] Notably Hungary (telecommunications and banking) and Slovenia (retail trade and banking). This phenomenon is in line with the pattern described as the "Flying Geese Model" (the Vienna Institute for International Economic Studies (WIIW), 2004), according to which transnational companies locate low and medium-technology export-oriented subsidiaries in leading transition economies first. As wages in those countries rise, these subsidiaries move on to countries with lower wage costs, replaced by medium-tech and (increasingly) high-tech subsidiaries.

Box 2. South-East Europe Compact for Reform, Investment, Integrity, and Growth

The Investment Compact, a component of the Stability Pact for Southeastern Europe, is an example of a group of countries—Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR of Macedonia, Moldova, Romania, and Serbia and Montenegro—joining forces to encourage high quality FDI. It aims to unify the approach toward foreign investors across countries on the principle of equal treatment with domestic investors. While this principle is embodied in an (incomplete) web of bilateral investment treaties and OECD Investment Instruments (legal instruments that establish rules of conduct for capital movements, which are binding commitments for member governments but recommendations for multinational enterprises), a uniform region-wide approach was seen as preferable, owing to its transparency and universal coverage. It also sends a clear signal of the cooperative approach taken by this group of host countries. The Investment Compact clearly lays out existing exceptions from national treatment for foreign investors (i.e., when treatment is not as favorable as that of domestic investors) by country, with the objective that these exceptions be eliminated over time. In the context of the Investment Compact, Southeastern European countries have agreed to work toward

- unifying FDI registration and approval procedures with those for domestic firms;
- allowing acquisition of real estate by foreign investors for FDI purposes;
- minimizing FDI-related requirements on statistical reporting, work and residence permits;
- eliminating discrimination in access to government procurement contracts; and
- removing obstacles to FDI in financial and professional services.

C. Econometric Results: Bilateral FDI Cross-Section Regressions

We start with bilateral cross-section regressions—the standard workhorse used in the empirical literature of this kind. The dependent variable is a cross-section of bilateral FDI flows or stocks (in logs) between 15 host and 24 source countries averaged for 2000-2002 from the OECD's International Direct Investment Statistics, supplemented by data provided by country authorities and from Hunya (2004).[9] On the right-hand side, we use three gravity variables: population—either alone, or in conjunction with GDP per capita in purchasing power parity (PPP) terms—as a proxy for market size and potential; the distance between source and host capitals (also in logs); and a dummy capturing cultural or historical ties between source and host country. Additional regressors (their sources in parentheses) include the ratio of tariff revenues to the value of imports (EBRD Transition Reports); the statutory corporate income tax rate (IMF); the EBRD index of foreign exchange and trade liberalization (EBRD Transition Reports);[10] the

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[9] Source countries are the EU15 plus Croatia, Cyprus, the Czech Republic, Hungary, Poland, Russia, Slovenia, Switzerland, and the US. Host countries are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, FYR of Macedonia, Hungary, Moldova, Poland, the Slovak Republic, Slovenia, Serbia and Montenegro, as well as Estonia, Latvia, and Lithuania treated as one host destination, as in the OECD database. Due to lack of data, the 2001 FDI stock for Albania and the 2004 FDI stock for Bosnia and Herzegovina are used.

[10] This index measures the degree of liberalization of the trade and foreign exchange system. A "1" rating means widespread import and/or export controls or very limited legitimate access to foreign exchange. A "2" rating signifies some liberalization of import and/or export controls, almost full current account convertibility, but a foreign exchange regime that is not fully

(continued…)

EBRD index of infrastructure reform, a composite index measuring the degree of reforms and decentralization in electricity generation and distribution, roads, railways, and telecommunications (EBRD Transition Reports); a dummy capturing tax holidays (compiled from PricewaterhouseCoopers' Worldwide Tax Summaries); unit labor costs, approximated by the ratio of manufacturing wages to GDP per capita (IMF); and an estimate of the "bribery tax" as a share of annual firm revenues (from the business environment surveys by the EBRD and World Bank). We also include source country dummies in all regressions.

The results are shown in Table 1. They are broadly similar whether bilateral FDI *flows* or *stocks* are used as the left-hand side variable. As in all other studies in the literature, gravity variables are very significant: the larger the size of the host economy and the closer geographical and cultural proximity to the main FDI source countries, the greater the cumulative FDI attracted.

Several policy variables also have a statistically significant effect on FDI. The EBRD index of foreign exchange and trade liberalization has a significant positive effect on FDI in most specifications, while unit labor costs—a variable representing productivity-adjusted wage rates—a negative effect in some. The tax burden on business, captured by the statutory corporate income tax rate, also has a significant negative impact (in the flow regressions). But not all policy variables work equally well. The index of infrastructure reform is significant in some specifications. Tax incentives are statistically insignificant (consistent with the findings of the OECD survey in Box 1), as is the "bribery tax", an estimate of the burden of corruption on business.

These regressions yield results that are consistent with the findings in other studies. As such, they are perhaps a useful extension of the literature to the countries of Southeastern Europe but do not add significant new insights. In the next Section, we use different techniques that illuminate the same issue from a different angle, as well as provide the tools for attacking a new set of questions in Sections E and F.

D. The Determinants of Nonprivatization FDI: Aggregate FDI Panel Regressions

As shown in Figure 3, FDI related to privatization can be very sizeable in some of the countries in our sample. Because the beginning date and pace of privatization differs from country to country, privatization deals can be large and lumpy, and the process itself is time-bound, the

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transparent (possibly multiple exchange rates). A "3" rating means that almost all quantitative and administrative import and export restrictions have been removed. A "4" rating is given when all quantitative and administrative import and export restrictions and all major export tariffs have been removed (except for agriculture) and the tariff scale for non-agricultural imports is fairly uniform. A "4+" rating means that the country has adopted standards and norms of advanced industrial economies and has become a WTO member.

Table 1. Bilateral FDI Cross-Section Regressions[1,2,3]

Dependent variable	FDI flows	FDI flows	FDI flows	FDI flows	FDI stocks	FDI stocks
Size (population)	1.260***	1.080***	1.050***	1.066***	1.247***	1.251***
	(0.158)	(0.153)	(0.219)	(0.221)	(0.182)	(0.181)
Log GDP p.c. in PPP				0.928		0.488
				(0.696)		(0.510)
Distance between host and source	-3.037***	-2.666***	-2.607***	-2.573***	-2.775***	-2.710***
	(0.358)	(0.366)	(0.378)	(0.376)	(0.401)	(0.404)
Cultural ties	0.760**	1.036***	1.068***	1.155***	1.189***	1.214***
	(0.365)	(0.397)	(0.410)	(0.421)	(0.445)	(0.447)
Foreign exchange and trade liberalization (EBRD index)		1.556***	1.370***	1.082***	0.581*	0.467
		(0.307)	(0.349)	(0.413)	(0.297)	(0.309)
Tariff revenue /imports		0.004	-0.004	0.046	0.012	0.017
		(0.047)	(0.046)	(0.058)	(0.036)	(0.036)
Statutory corporate income tax rate		-0.115***	-0.080*	-0.105**	0.006	-0.013
		(0.040)	(0.043)	(0.044)	(0.028)	(0.036)
Unit labor cost[4]		-0.846*	-0.578	0.192	0.104	0.424
		(0.432)	(0.533)	(0.836)	(0.383)	(0.537)
Infrastructure reform (EBRD index)			0.128	0.139	0.713*	0.683*
			(0.443)	(0.440)	(0.404)	(0.405)
Tax holidays			0.370	0.312	0.281	0.259
			(0.361)	(0.364)	(0.304)	(0.304)
Corruption (bribery tax)[5]			-0.115	0.621	-0.024	0.337
			(0.287)	(0.570)	(0.243)	(0.455)
R-squared	0.62	0.68	0.68	0.68	0.71	0.72
No. of observations	179	179	179	179	214	214

Source: Authors' calculations.

1/ All variables except dummies in logs. Source countries: EU15, United States, Switzerland, Russia, Poland, Hungary, the Czech Republic, Cyprus, Croatia and Slovenia. Host countries: Albania (stock regressions only), Poland, the Czech Republic, Hungary, the Slovak Republic, the Baltic countries (as a group), Slovenia, Bulgaria, Croatia, Moldova, FYR of Macedonia, Romania, Serbia and Montenegro, and Bosnia and Herzegovina (stock regressions only).

2/ *, **, and *** represent significance at 10, 5, and 1 percent, respectively. All regressions include source country dummies to control for source country effects.

3/ Variables are 2000–2002 averages, except end-2001 stock (Albania) and end-2004 stock (Bosnia and Herzegovina).

4/ Unit labor costs are approximated by the ratio of US dollar wages in manufacturing and GDP per capita.

5/ Average bribe tax as a percentage of annual firm revenues.

associated FDI flows may distort the results of the panel regressions. Moreover, it is possible that the determinants of privatization-related FDI are different than those of all other FDI.

Unfortunately, there are no consistent data on privatization-related FDI on a bilateral basis. As discussed earlier, a possible proxy for privatization-related FDI is cross-border mergers and acquisitions (M&A) for which, however, data are only available on an aggregate basis for each host country. Therefore, we conduct a panel analysis using aggregate FDI data excluding cross-border M&A for each host country for the period 1995-2003.[11]

The use of panel regressions with both a time and a cross-country dimension, as opposed to a simple cross-section regression, allows a more sophisticated examination of country-specific effects. We use the following specification

$$\ln FDI_{it} = \theta X_{it} + u_i + v_{it},$$

where X_{it} is a vector of explanatory variables in host country i that affect its attractiveness as a destination of non privatization-related FDI (including two time-invariant variables: weighted distance and cultural ties to source countries), u_i captures any country-specific effects, and v_{it} is the disturbance term.

The country-specific term u_i may be either fixed parameters that can be estimated ("fixed effects") or random disturbances characterizing the ith country ("random effects"). In the first case, since the fixed country effects are time-invariant, they would be perfectly correlated with the other two time-invariant explanatory variables. As a result, we would not be able to estimate directly the impact of location and cultural ties on FDI. The random effects specification, on the other hand, would allow us to estimate the impact of these variables and actually provide more efficient estimates if the country-specific term u_i is not correlated with the other explanatory variables. To distinguish between the two hypotheses regarding the country-specific term, we can test for the orthogonality of u_i to the other regressors with a Hausman test. The results of this test, reported in Table 2, suggest that the random effects specification is indeed appropriate for our benchmark regressions.

At the same time, the addition of a time dimension creates a problem for the stock regressions: the dependent variable in each period now reflects not only the impact of policies in this period but also the cumulative impact of past policies. To address this problem, we include the lagged value of FDI on the right-hand side in all stock equations. In turn, this creates correlation between the lagged FDI and the residual, which would imply inconsistent

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[11] Distance and cultural proximity variables for each host country are now weighted by source countries' GDP. Since only one or two observations of the variable on tax holidays are available for each host country during the observation period, this variable is omitted.

estimators. To correct for this, we have estimated a number of stock equations using the Generalized Method of Moments (GMM) proposed by Arellano and Bond (1991), which yields consistent estimators.

The results for the aggregate panel regressions, presented in Table 2 (for FDI flows) and Table 3 (for FDI stocks), generally confirm those from the bilateral regressions. Gravity variables are still strongly significant, as are the degree of liberalization of the trade and foreign exchange regime among the policy variables. The statutory corporate income tax rate and unit labor costs have a significant negative impact in several regressions, and the EBRD infrastructure reform index also comes in as marginally significant with a positive sign in two regressions. We also try the key regressions including year dummies, which yields broadly similar results. Finally, we tried using per capita FDI stock and flows as the dependent variable, and again the results (not reported) are broadly similar.

E. Who Stands to Gain the Most from Good Policies? Potential FDI Estimation

The preponderance of gravity variables among the determinants of FDI, underscored both by the existing empirical literature and our own findings, suggests that policies can have a relatively limited, albeit still significant, impact. It is the size of this impact that is of primary interest to policy-makers, since they cannot affect the size, location, or history of their country. Moreover, even if certain policy variables are unambiguously identified as significant determinants for FDI, there are limits to the discretion policy-makers have.

To capture the impact that policies could have on FDI in this environment, we distinguish between exogenous determinants—the gravity variables—that are taken as given by policy-makers, and endogenous or policy-related variables that are under their control. We can then define a "potential" level of FDI for each host country using the actual values of exogenous variables and the "best" values of the policy variables. The gap between actual FDI and this "potential" would measure how much each host country stands to gain from getting its policies right.[12]

What is the "best" value of the policy variables? Clearly, revenue considerations generally preclude driving tax or tariff rates to zero, even if this were beneficial for FDI. In reality, policy-makers in host countries use the level of policy variables in their neighbors and competitors as a benchmark. To estimate a realistic level of "potential" FDI in these

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[12] Christie (2003) also presents a "potential" FDI and reports that SE European countries as a group were 47 percent below that level. His estimate, however, is the predicted value of FDI on the basis of the gravity factors plus an institutional variable (index of economic freedom by the Heritage Foundation—which confusingly also includes the size of total capital inflows as an indicator) and ignores the impact of other significant policy variables.

Table 2. Aggregate Nonprivatization FDI Flow Panel Regressions, (1995−2003)[1,2]

Year dummies?	(1) No	(2) No	(3) Yes	(4) No	(5) Yes
Specification	Fixed effects	Random effects	Random effects	Fixed effects	Random Effects
Size (Log population)	2.698	0.780***	0.796***	4.748	0.797***
	(6.914)	(0.218)	(0.181)	(7.080)	(0.182)
Log (p. c.) GDP in PPP				1.267	0.039
				(1.001)	(0.273)
Weighted distance[3]	(dropped)	7.099***	7.714***	(dropped)	7.471***
		(2.526)	(1.970)		(2.618)
Weighted cultural ties[3]	(dropped)	3.876	4.444*	(dropped)	4.454*
		(3.325)	(2.539)		(2.553)
Foreign exchange and trade lib. (EBRD index)	0.968***	0.606***	0.626***	1.007***	0.618***
	(0.363)	(0.208)	(0.192)	(0.363)	(0.202)
Tariff revenue /imports	0.041	0.024	0.020	0.062	0.019
	(0.040)	(0.029)	(0.025)	(0.043)	(0.025)
Statutory corporate income tax rate	-0.041*	-0.031*	-0.024	-0.032	-0.024
	(0.023)	(0.018)	(0.018)	(0.024)	(0.018)
Unit labor cost[4]	-2.103*	-0.547	-0.621*	-2.332**	-0.597
	(1.163)	(0.427)	(0.333)	(1.174)	(0.376)
Infrastructure reform (EBRD index)	0.313	0.393*	0.193	0.143	0.190
	(0.270)	(0.229)	(0.261)	(0.301)	(0.264)
R-squared	0.72	0.67	0.71	0.72	0.71
Number of observations	113	113	113	113	113
p-value for Hausman test[5]		0.63	0.60		0.59

Source: Authors' calculations.

1/ All variables except dummies in logs. *, **, and *** represent significance at 10, 5, and 1 percent respectively.

2/ The sample includes Albania, Bosnia and Herzegovina, the Baltic countries (as a group), the Czech Republic, Hungary, Poland, the Slovak Republic, Slovenia, Bulgaria, Croatia, Moldova, the FYR Macedonia, Romania, and Serbia and Montenegro.

3/ Sum of bilateral distance (or cultural tie dummies) to source countries as specified in the bilateral regressions in Table 1 weighted by source countries' GDP.

4/ Unit labor costs are approximated by the ratio of US dollar wages in manufacturing and GDP per capita.

5/ The null hypothesis for the Hausman test is that the difference in coefficients between fixed effects and random effects specifications is not systematic. Thus a small p-value (<0.05) suggests the rejection of the random effects specification.

Table 3. Aggregate Nonprivatization FDI Stock Panel Regressions, (1995−2003)[1]

Year dummies?	(1) No	(2) No	(3) Yes	(4) Yes	(5) No	(6) Yes
Specification	Fixed effects	Random Effects	Fixed effects	Random effects	GMM[2]	GMM[2]
Lagged log FDI stock	0.602***	0.651***	0.525***	0.611***	0.452***	0.424***
	(0.069)	(0.059)	(0.078)	(0.058)	(0.102)	(0.135)
Size (Log population)	0.493	0.307***	-0.347	0.291***	5.687***	2.796
	(2.391)	(0.071)	(2.278)	(0.061)	(2.220)	(1.809)
Log (p. c.) GDP in PPP	0.770**	0.098	-0.214	0.036	0.058	-0.329
	(0.351)	(0.104)	(0.538)	(0.082)	(0.477)	(0.239)
Weighted distance	(dropped)	-2.492**	(dropped)	-3.157***	(dropped)	(dropped)
		(1.138)		(0.995)		
Weighted cultural ties	(dropped)	1.330	(dropped)	1.906**	(dropped)	(dropped)
		(0.957)		(0.771)		
Foreign exchange and trade lib. (EBRD index)	0.197*	0.147**	0.176	0.171***	0.280**	0.197***
	(0.112)	(0.069)	(0.108)	(0.066)	(0.138)	(0.066)
Tariff revenue /imports	0.003	-0.003	0.001	-0.005	-0.008	-0.011
	(0.017)	(0.011)	(0.017)	(0.009)	(0.031)	(0.024)
Statutory corporate income tax rate	-0.021***	-0.015***	-0.017**	-0.009*	-0.006	-0.012
	(0.008)	(0.006)	(0.008)	(0.005)	(0.009)	(0.009)
Unit labor cost	-0.538	-0.088	-0.605*	-0.171	-0.693**	-0.952***
	(0.375)	(0.137)	(0.352)	(0.119)	(0.330)	(0.272)
Infrastructure reform (EBRD index)	-0.029	0.117	-0.029	0.153*	-0.138	0.056
	(0.125)	(0.096)	(0.137)	(0.089)	(0.118)	(0.101)
R-squared	0.98	0.97	0.98	0.98		
Number of observations	103	103	103	103	86	86
p-value for H_0 of no first-order autocorrelation in the differenced residuals					0.02	0.01
p-value for H_o of no second-order autocorrelation in differenced residuals					0.65	0.91

Source: Authors' calculations.

1/ See footnotes in Table 2.

2/ Generalized Method of Moments, based on Arellano and Bond (1991)'s one-step robust estimates. The presence of first-order autocorrelation in the differenced residual does not imply that the estimates are inconsistent, but the presence of second-order autocorrelation would imply that the estimates are inconsistent.

conditions, we use the "best" level of the policy variables across the sample. That is the highest value of the foreign exchange and trade liberalization and infrastructure reform indices, and the lowest unit labor cost, tariff level, and corporate tax burden across the countries in Central and Southeastern Europe in 2003. While "better" values for these variables are of course possible, this approach gives a reasonable idea of the level of non privatization-related FDI that could realistically be expected if policy-makers in each host country emulated their best-performing neighbors. It also provides an appealing measure of the relative potential gain in terms of additional FDI across the countries of the region.

To estimate the "potential" FDI stock, we use the GMM equation (6) from Table 3. Table 4 presents the results and Figure 6 shows the ratio between actual and "potential" non privatization FDI stock at end-2003. There is significant potential for generating further FDI in all Central and Southeastern European countries. The gap between actual and potential FDI is found to be relatively small in the Central European and Baltic countries, and somewhat surprisingly, in Bulgaria and Romania. For Poland and Serbia and Montenegro, the gap is around 50 percent, and it reaches between two-thirds and three-quarters for Croatia, FYR of Macedonia, Albania, and Moldova, and even above that for Bosnia and Herzegovina. These countries have the most to gain from getting their policies right.

These results should be treated with caution. As mentioned above, using the "best" values of the policy variables from the sample does not mean that these policies cannot be improved further. Thus, the calculated "potential" may underestimate what countries can actually achieve through better policies.

Table 4. Estimated Potential and Actual Nonprivatization FDI Stocks, 2003[1]

In millions of US dollars

Country	Potential FDI	Actual FDI	Gap (in percent)
Hungary	38,385	31,488	18
Bulgaria	2,729	2,063	24
Baltic countries	16,114	11,785	27
Czech Republic	33,638	23,550	30
Slovak Republic	4,813	3,316	31
Slovenia	3,321	2,170	35
Romania	14,206	8,848	38
Yugoslavia, FR (Serbia/Montenegro)	2,894	1,441	50
Poland	52,752	25,080	52
Macedonia, FYR	1,690	611	64
Croatia	21,890	7,547	66
Albania	3,302	1,067	68
Moldova	3,205	742	77
Bosnia and Herzegovina	5,763	1,064	82

Source: Authors' calculations.

1/ Potential FDI is estimated on the basis of the regression in Column 6 of Table 3 and data for 2003. The gap is defined as the difference between potential and actual FDI in percent of potential FDI.

Figure 6. Gap Between Potential and Actual Non-Privatization-Related FDI Stocks at End of 2003
(in percent of potential FDI)
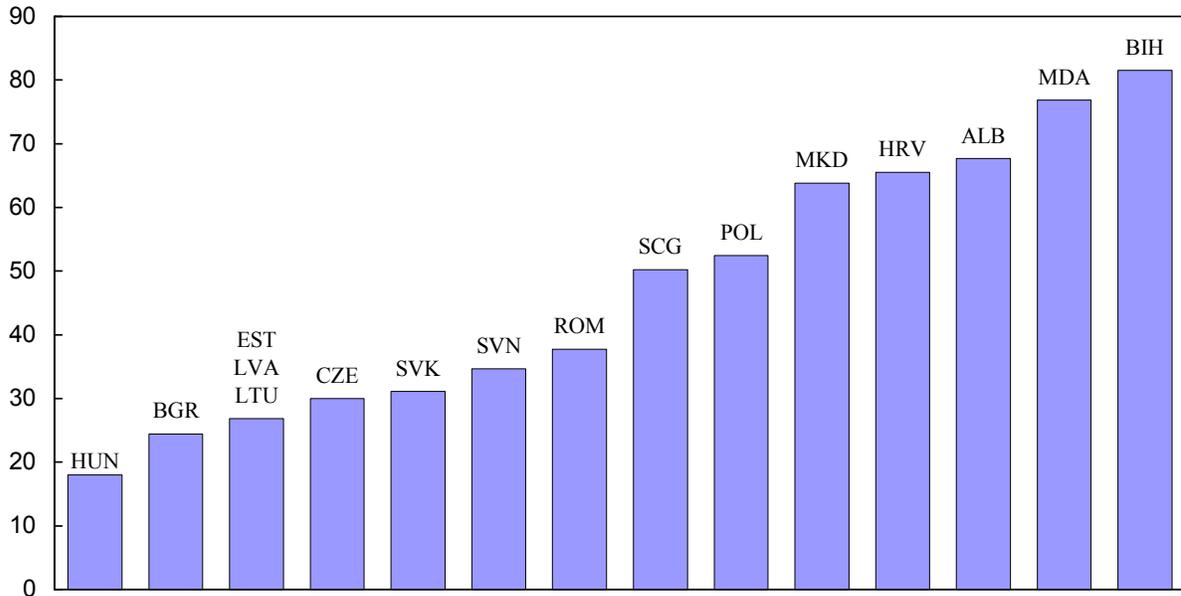
Source: Authors' calculations.
Note: See Appendix I for country abbreviations.

F. Does Size Matter? Threshold Effects Estimation

Although the empirical results presented in the previous sections appear to be relatively robust, the relationship between FDI and the various explanatory variables may not be constant across our sample. Indeed, the emergence of distinct clusters of "leaders" and "laggards" suggests that the nature of this relationship may be changing as the level of FDI increases. Threshold effects estimation, along the lines of Hansen (1996, 2000), provides the tool to test this hypothesis.

This technique essentially tests the hypothesis that the sample can be split into two sub-samples depending on the value of a threshold variable q_{it}:

$$\ln FDI_{it} = \theta_1 X_{it} + u_i + v_{it}, \qquad q_{it \leq} \gamma,$$

$$\ln FDI_{it} = \theta_2 X_{it} + u_i + v_{it}, \qquad q_{it >} \gamma,$$

The advantage of this technique is that it allows the threshold value to be endogenously estimated, as well as the calculation of an asymptotic *p*-value for the null hypothesis of no threshold effect using simple simulation techniques. The technique also provides a confidence interval for the threshold estimate.

To test the threshold hypothesis, we use equation (2) in Table 3 (setting the number of bootstrap replications to 1000), since Hansen's technique can only be applied to least-squares estimates. Once the threshold has been estimated, we also derive GMM estimates for the two sub-samples. The results are presented in Figure 7 and Table 5. There is evidence of a

threshold at a level of non-privatization FDI of 12.1 percent of GDP (roughly the level in Poland in 2003). The null hypothesis (no threshold) can be rejected at the one percent confidence level.

These results suggest strongly that when moving from below to above the threshold, the estimated relationship between FDI and its determinants changes. While host market size remains important, geographical and cultural distance lose their significance at higher levels of FDI. Both estimation methods show that above the threshold the usual negative impact of unit labor costs dissipates—in fact, the coefficient turns positive in some equations. This implies that low wage costs are no longer a major determinant of FDI at higher FDI levels. Similarly, the degree of foreign exchange and trade liberalization becomes less important above the threshold. The estimated coefficient of the corporate tax burden, on the other hand, is a minor puzzle: it is significantly negative below the threshold for the OLS version but above it for the GMM version.

Figure 7. Estimated Threshold for Non-Privatization FDI, End of 2003
(in percent of GDP)
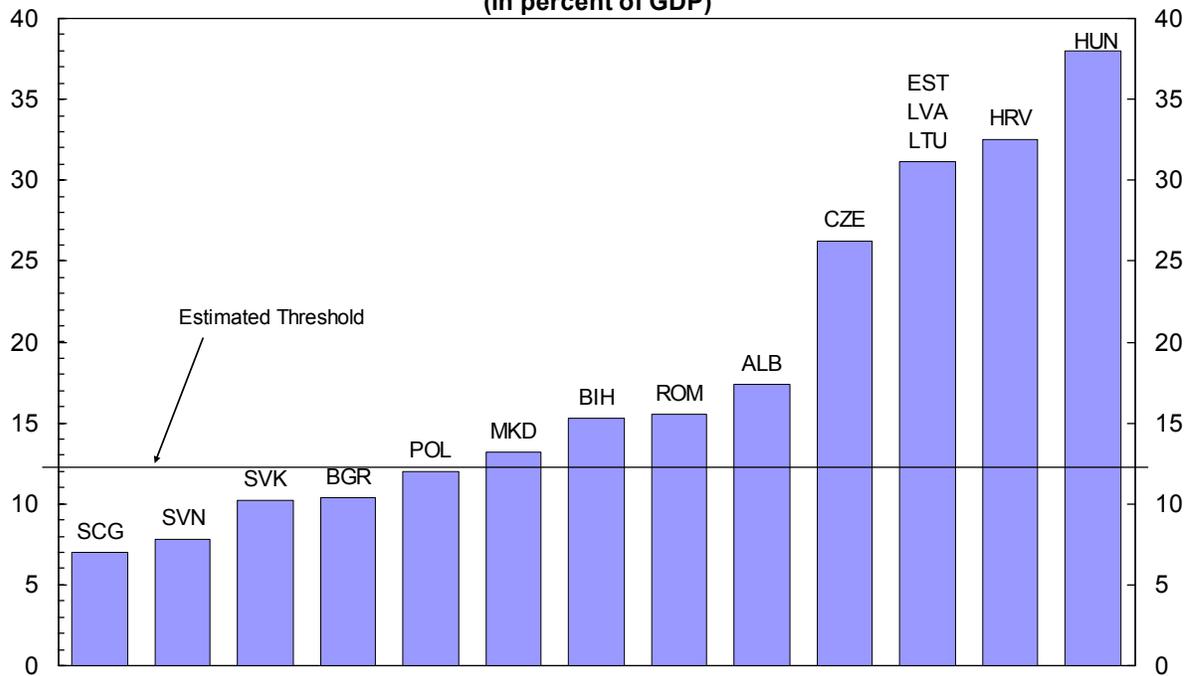
Source: Authors' calculations.
Note: See Appendix I for country abbreviations.

Table 5. Threshold Effects Estimation for
Aggregate Nonprivatization FDI, 1995−2003[1]

Estimated threshold level: FDI/GDP = 12.1 percent

	(1)	(2)	(3)	(4)
Specification	Random effects	Random effects	GMM 2/	GMM 2/
Estimated threshold[2]	FDI/GDP≤12.1%	FDI/GDP>12.1%	FDI/GDP≤12.1%	FDI/GDP>12.1%
Lagged FDI stock	0.463***	0.646***	0.350***	0.416***
	(0.091)	(0.107)	(0.098)	(0.157)
Size (population)	0.330***	0.425***	4.718	3.260
	(0.094)	(0.123)	(5.150)	(3.979)
Log GDP p.c. in PPP	0.178	0.326***	-1.055	0.792
	(0.147)	(0.111)	(1.112)	(0.543)
Weighted distance	-2.810**	-1.491	(dropped)	(dropped)
	(1.386)	(1.435)		
Weighted cultural ties	6.317***	0.698	(dropped)	(dropped)
	(2.128)	(0.740)		
Foreign exchange and trade liberalization-EBRD index	0.254***	0.287*	0.412**	0.047
	(0.084)	(0.172)	(0.175)	(0.188)
Tariff revenue /imports	-0.013	-0.005	0.036	-0.046***
	(0.015)	(0.010)	(0.043)	(0.014)
Statutory corporate income tax rate	-0.016**	0.001	-0.014	-0.039***
	(0.007)	(0.010)	(0.014)	(0.015)
Unit labor cost	-0.701***	0.393***	-1.371*	0.015
	(0.243)	(0.143)	(0.717)	(0.617)
Infrastructure reform (EBRD index)	0.106	0.180*	-0.179	-0.007
	(0.127)	(0.108)	(0.176)	(0.244)
Year dummies?	No	No	No	No
R-squared	0.97	0.99		
Number of observations	59	44	45	41

Source: Authors' calculations.

1/ Ignoring the first threshold estimate that would imply a first subsample of 15 observations. The 90% confidence interval of the threshold estimate is [12.0, 17.4].

2/ Generalized Method of Moments, based on Arellano and Bond (1991).

An intuitive interpretation of these findings is that a FDI becomes fairly immune to distortions and risks once the economic and legal environment becomes investor-friendly, either because it is driven by strategic considerations or because of network effects (as in the case of mobile phones, gas stations, etc.). Thus, when a host country first opens its door to foreign investors, the size of the domestic market, geographical and cultural proximity, and cheap labor are among the most important determinants of FDI. As the country succeeds in attracting more foreign investment, however, the importance of these factors declines and other factors come increasingly into play, such as the level of income and tarrifs, institutional and infrastructure development, and the business environment. This interpretation is also broadly consistent with the hypothesis that successful host countries are able to attract increasingly high value-added, sophisticated foreign investment, while passing on FDI that had been attracted by low labor costs, as suggested by the Flying Geese Model (WIIW, 2004).

IV. CONCLUSIONS

Our analysis confirms the predominance of gravity factors (host market size and geographical and cultural proximity between source and host country) in explaining FDI flows to Central and Southeastern Europe, in line with the findings of the existing empirical literature on other regions. This conclusion holds even after adjusting for privatization-related FDI flows.

Nevertheless, the policy environment in the host country still matters for FDI. We find that high unit labor costs, a high corporate tax burden, and, to a lesser extent, a high level of import tariffs discourage FDI, while a liberal foreign exchange and trade regime and advanced reforms in the infrastructure sector encourage FDI. In contrast, tax holidays and domestic corruption do not seem to have a statistically significant impact in the countries in our sample. The results concerning institutional variables, however, come with a health warning. Explanatory variables that purport to measure the quality of institutions, such as the index of reforms or the estimated "bribery tax," may be imperfect proxies: they may be correlated with each other or with other factors that also influence investment decisions, and their estimated coefficients may thus be hard to interpret.

These findings can provide an analytical foundation for the evaluation of policies aimed at making Southeastern European countries more attractive to foreign investors while, at the same time, highlighting the limits of what these policies can achieve. On the one hand, the emphasis placed by international financial institutions, donors, and policymakers in Southeastern European countries on liberalizing the trade and foreign exchange regime and controlling labor costs is appropriate: our results suggest that these policies are indeed likely to have a beneficial direct impact on FDI. On the other hand, efforts to improve governance and combat corruption, their broader economic benefits notwithstanding, may not have a major *direct* impact on FDI. They could still, of course, stimulate foreign investment— indeed all investment—*indirectly* through their positive effects on the economy.

To explore further the potential role of policies in attracting foreign investment, we extend the existing literature on FDI in two directions. First, we distinguish between exogenous determinants of FDI (size, location, cultural links to source countries) and policy-driven

determinants. Recognizing that policymakers set policies in part by looking at their competitors, we develop the concept of a country's "potential" FDI determined by the exogenous variables, on one hand, and the "best" values of the endogenous variables in our sample, on the other. This concept should be seen as a benchmark, not a ceiling: countries can (and do) attract FDI beyond their "potential" by adopting more FDI-friendly policies than their competitors. But it gives us an idea of the level of nonprivatization-related FDI that could realistically be expected if policymakers in each host country emulated their best-performing neighbors. The comparison between "potential" and actual nonprivatization FDI at the end of 2003 shows that all Central and Southeastern European countries can hope to attract significant additional FDI if they improve their policies. Among these countries, Bosnia and Herzegovina, Albania, the FYR of Macedonia, Croatia, and Serbia and Montenegro stand to gain the most in terms of additional FDI from getting their policies right. That margin is smaller for Romania and Bulgaria, which have already attracted considerable FDI. To continue attracting sizable FDI inflows, countries that are closer to their "potential" should strive to go beyond the policy norms prevailing in the region.

The second direction in which we extend the existing literature is to test for threshold effects, that is, the hypothesis that the impact of the various determinants of FDI changes once FDI increases beyond a certain level. We find strong evidence of a threshold at a level of non privatization-related FDI of around 12 percent of GDP, roughly the share in Bosnia and Herzegovina and Romania in 2003. Below that level, gravity variables and labor costs are the predominant determinants of FDI. As FDI rises above the threshold, however, the importance of these factors declines (although gravity variables continue to be significant), and that of the host country's prosperity and of institutional factors increases. While not conclusive, this evidence suggests that the nature of FDI changes as the host country attracts more foreign investment. The initial wave of foreign investors is attracted primarily by market size, ease of access, and low labor costs, but once a "critical mass" of foreign investment is reached, a new kind of investor appears, drawn more by the degree of institutional development, the quality of the business environment, and the prosperity of the country.

APPENDIX I

Key to Country Labels Used in Figures

ALB   Albania
AUS   Austria
BEL   Belgium
BGR   Bulgaria
BIH   Bosnia and Herzegovina
CHN   People's Republic of China
CZE   Czech Republic
CYP   Cyprus
DEU   Germany
ESP   Spain
EST   Estonia
FRA   France
GBR   United Kingdom
GRC   Greece
HRV   Croatia
HUN   Hungary
ITA   Italy
KWT   Kuwait
LVA   Latvia
LTU   Lithuania
MDA   Moldova
MKD   former Yugoslav Republic of Macedonia
NLD   Netherlands
POL   Poland
ROM   Romania
RUS   Russia
SCG   Serbia and Montenegro
SVK   Slovakia
SVN   Slovenia
TUR   Turkey
USA   United States of America

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