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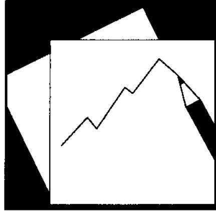

IMF Working Paper

The Second Transition: Eastern Europe in Perspective

Stefania Fabrizio, Daniel Leigh, and Ashoka Mody

INTERNATIONAL MONETARY FUND

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IMF Working Paper

European Department

The Second Transition: Eastern Europe in Perspective

Prepared by Stefania Fabrizio, Daniel Leigh, and Ashoka Mody [1]

March 2009

Abstract

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The countries of Eastern Europe achieved two remarkable transitions in the short period of the last two decades: from plan to market and, then, in the run-up to and entry into the European Union, they rode a wave of global trade and financial market integration. Focusing on the second transition, this paper reaches three conclusions. First, by several metrics, East European and East Asian growth performances were about on par from the mid-1990s; both regions far surpassed Latin American growth. Second, the mechanisms of growth in East Europe and East Asia were, however, very different. East Europe relied on a distinctive—often discredited—model, embracing financial integration with structural change to compensate for appreciating real exchange rates. In contrast, East Asia contained further financial integration and maintained steady or depreciating real exchange rates. Third, the ongoing financial turbulence has, thus far, not had an obviously differential impact on emerging market regions: rather, the hot spots in each region reflect individual country vulnerabilities. If the East European growth model is distinctive, is it sustainable and replicable? The paper speculates on the possibilities.

JEL Classification Numbers: F21, F43, O16, O43, O50

Keywords: Growth, Transition, Trade, and Financial Integration

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[1] The authors are at the International Monetary Fund. They are grateful for generous comments to Tassos Belessiotis, Ryszard Rapacki, Istvan Szekely, and to several participants at the workshop organized by Directorate-General for Economic and Financial Affairs (DG ECFIN) of the European Commission on "Five years of an enlarged EU—a positive-sum game," Brussels on 13 and 14 November 2008. Susan Becker provided valuable research assistance.

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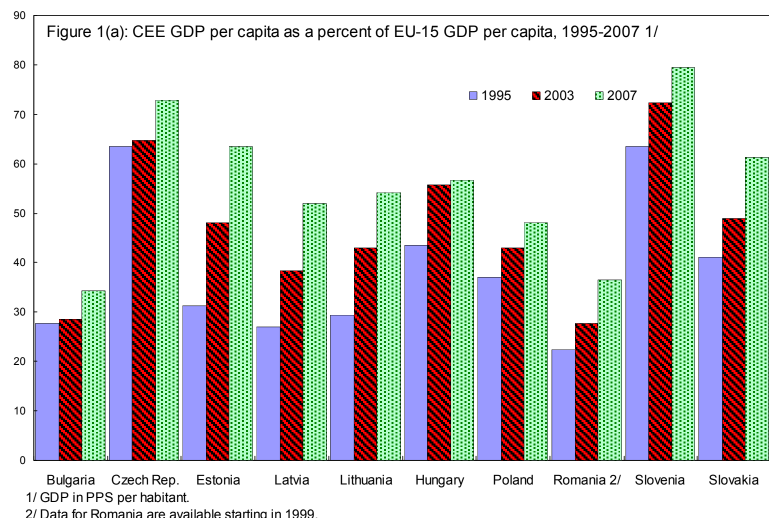
I. INTRODUCTION

This paper has documents remarkable economic achievements of the group of Central and Eastern European (CEE) nations that emerged from decades under socialist planning to vibrant market economies within the fold of the European Union (EU). The impressive transformation occurred in a matter of less than two decades. And within that short time span, there were, in turn, two distinct transitions—from planned to market systems and then increased economic sophistication riding on the wave of globalization. The paper goes on to argue that the second transition was the result of an economic development model that has no recent precedent. Indeed, to the extent that the CEE approach to growth and structural transformation had been attempted in the post-World War II period, it stood largely discredited. For these reasons, the paper offers a broader comparative commentary on the economic achievements and growth strategy of two other groups of emerging market economies, those in Latin America and, especially, in East Asia.

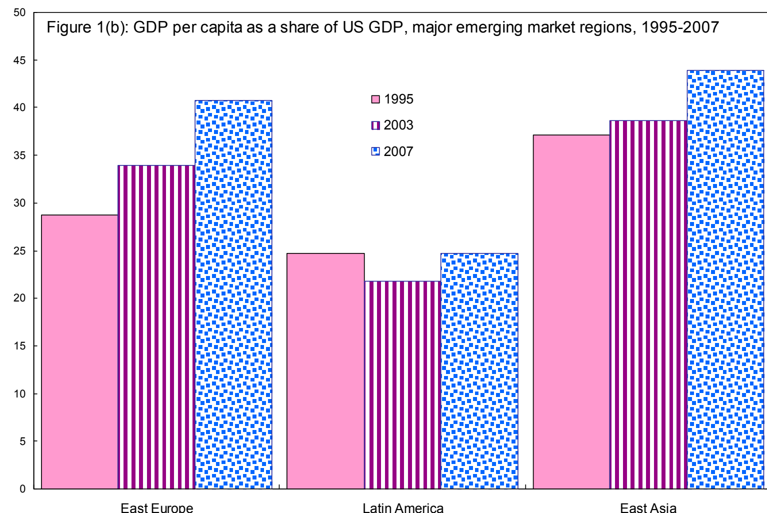
It is the case that even as this paper is being written, a globally-coordinated shock of a substantial magnitude is propagating its waves through the world economy. The CEE economies are being subjected to a severe test. Some countries, in particular, had placed themselves in a more vulnerable situation than others and they are likely to suffer substantial contraction. However, as of this writing, it is not evident that the CEE economies as a group will ultimately be impacted more so than other regions. As the global crisis continues to unfold, countries in all regions are feeling the pressure, with specific countries in those regions under particular stress, reflecting their specific vulnerabilities. Within the CEE and elsewhere, country efforts will need to complement global initiatives to cushion the shock and help preserve the gains achieved.

And the CEE gains before the crisis hit were substantial. Consider a metric of the accomplishments. The GDP per capita (in PPP terms) of each of the ten CEE countries we consider is measured as a ratio of the GDP per capita of the EU-15 (the first fifteen members of the European Union). We start the story in 1995, by when the turmoil from the first transition was largely complete and all countries had passed beyond their lowest output point following the break from communism (see Fischer and Sahay, 2004). Figure 1(a) shows the subsequent gains through 2003, the year before eight of the ten countries (i.e., all other than Bulgaria and Romania) entered the EU. Although, the



starting points of the countries varied widely—from a low of 30 percent for a number of countries to about 70 percent for the Czech Republic and Slovenia—all countries gained on the more affluent EU-15. Recall, this phase included the emerging market crises from Mexico to Russia, the last of which in particular hurt some of the CEE economies. After 2003, with the entry of eight countries in the EU and strengthening prospects of Bulgarian and Romanian entry, the climb continued and was about as strong and about as broad-based. Particularly impressive was the increase achieved by the Czech Republic from its already high per capita income; in contrast, Hungary, a star of previous years, made modest gains.

To place this achievement in perspective, we compare it with the gains made by Latin American and East Asian economies over the same period. Here we benchmark the per capita income to the United States per capita income, taking simple averages of the countries in each group (Figure 1(b)).[2] Clearly, there is often significant variation within each group and so the picture we portray does not do justice to individual achievements within each region. Nevertheless, the comparative trends are revealing. The CEE economies had an average per capita income ratio relative to the U.S. per capita income of 29 percent in 1995, which increased by 12 percentage points to 41 percent in 2007. The Latin American experience is a clear contrast. The average per capita GDP relative to the United States has remained below 25 percent since 1995. The ratio actually fell during the crisis years from 1995 to 2003 and in the next four years merely regained the 1995 level. Thus, it was not just the 1980s that were a lost decade for the Latin America but despite efforts at macroeconomic stabilization and more openness, Latin America has failed to gain any significant ground now for almost 30 years (though as Zettelmeyer, 2006, suggests the variation within Latin America may be higher than in other regions, masking significant differences across countries). The East Asian economies made rather more progress. Recall also that East Asia economies had experienced exceptional growth for several years prior to 1995, some from the 1970s and, as such, their scope for further growth was more restricted. The crisis years definitely slowed down East Asia, not



[2] Unless otherwise stated, the group of Latin American countries includes Argentina, Brazil, Chile, Colombia, Mexico, Perú, and Venezuela, and the group of East Asia countries includes China P.R., Hong Kong SAR, Indonesia, Korea, Malaysia Philippines, Singapore, Taiwan Province of China, and Thailand.

surprising since countries in the region were at the epicenter of the turmoil during 1997-98. Thereafter, East Asian economies resumed their catch up process.

The questions of interest then are: did development and growth strategies vary across these regions and, if so, what do they tell us about the trade-offs that policymakers have made? This paper's thesis is that the CEE nations have embraced the opportunities of globalization—along with its potential downsides and risks—more so than any other region. This approach distinguishes their growth achievements, the mechanisms of growth, and the structural transformation witnessed. Two features of the policy approach are particularly relevant. First, international financial integration has been a central aspect of the growth strategy. That integration has contributed to sustained inflows of capital, including not only foreign direct investment but also bank lending and portfolio flows. The counterpart of these flows has been a sometimes large current account deficit. Second, with capital inflows, real exchange rates have been allowed to appreciate. But the commitment to trade openness has remained unwavering, as countries' external trade has become an increasing share of their GDP. In turn, maintaining competitiveness has required a transformation of the product structure and quality.[3]

This approach, combining real exchange rate appreciation and current account deficits, stood largely discredited. Indeed, the collapse of Latin American economies in the midst of the debt crisis of the 1980s is often attributed to just such a strategy. In the 1960s and 1970s, Latin America did grow rapidly, borrowing from abroad. But the Latin American economies failed to sustain their competitive ability and the debtors' loss of confidence led to their withdrawal and a severe crunch. Similarly, these factors also contributed to the East Asian crisis of 1997-98. And, indeed, that risk remains in the CEE economies, and, as the global financial turbulence continues, the risk may be turning into a reality for some economies. A sharp contraction is ongoing especially in those countries that experienced the most heady growth rates. Could there be lasting consequences with a prolonged slowdown?

The contrast with East Asia is noteworthy. The East Asian growth miracle has been viewed through widely varying lenses, with some seeing the experience as evidence that markets do not by themselves deliver growth, and need to be "governed" by wise politicians and technocrats (Wade, 1990) and others insisting on the primacy of the disciplines and opportunities afforded by international markets (World Bank, 1993). These debates have receded following the Asian crisis and the focus has shifted to how countries choose to interact with global markets. East Asia has once again attracted approval (Prasad, Rajan, and Subramaniam, 2006, and Rodrik, 2008). In broad terms, with some country variation, the

[3] The CEE countries also participate in the European labor market, which despite its current restrictions allows considerable and increasing mobility. Countries in other regions have more particular—historically and geographically determined—opportunities for benefiting from international labor mobility. The complexity of this issue and the limited data preclude analysis in this paper.

East Asian approach has been an amalgam of reinforcing elements that include: relatively high savings rates (postponed consumption), a lid on currency appreciation, a modest pace of international financial integration, resulting in small current account deficits or even surpluses and growing international reserves. [4] East Asia has moved in the direction of self-insurance through reserve accumulation rather than international risk sharing and intertemporal consumption smoothing. However, in common with the CEE, East Asian economies have undertaken an impressive transformation in its export structure (as in the CEE).

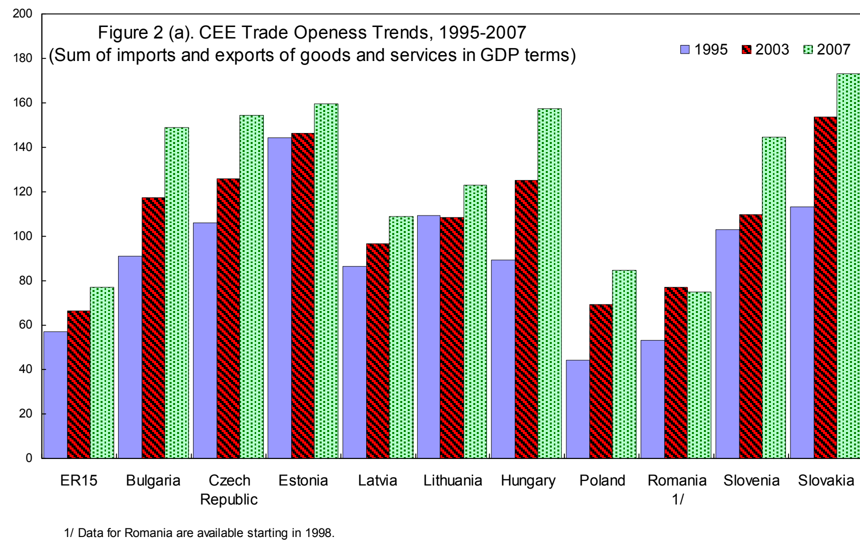
This paper does not attempt a normative evaluation of the different approaches to engagement with globalization. Rather, the rest of the paper documents the features of the growth strategy and the growth outcomes in the CEE, Latin America, and East Asia. The next section focuses on the CEEs. It describes the increasing reliance of all countries in this region on international trade and financial markets, accompanied by the strengthening of domestic institutions. While the extent to which any one country has proceeded in a particular direction differs, the overall similarity of the thrust is striking. This is followed by a comparative perspective across the three regions of interest. Here the differences are striking. To assess the outcomes from these strategies, the next section reports on the growth outcomes resulting from their differing development strategies, reporting a descriptive analysis of growth accelerations and the findings of growth regressions. A concluding section speculates on the sustainability and replicability of the CEE growth model.

II. Openness and Institutions in the CEEs

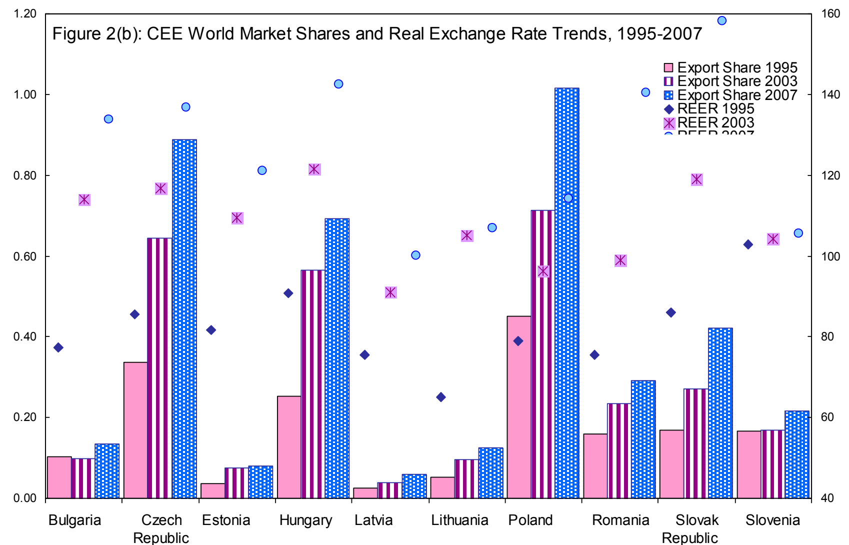
The degree of trade openness has increased steadily in all countries, with the exception of Romania, where it appears to have stalled in recent years (Figure 2(a)). In 1995, the ratio of trade (exports plus imports) to GDP was less than 100 percent for 5 of the 10 countries we consider. By 2007, there were only two such countries, Poland and Romania. Clearly, many of the CEE countries are small and it is to be expected that they will be open to trade. What is remarkable is the continued and substantial increase in trading relationships. In this regard, the CEE countries have been riding an international wave of globalization, wherein trade has, in general, grown faster than production. Within Europe, even the more advanced economies have participated to an increasing degree in international trade. Thus,

[4] Rodrik (2008) argues that an undervalued real exchange rate compensates for institutional weaknesses, which would otherwise thwart the growth of the tradeables sector necessary for overall growth.

the trade to GDP ratio of the EU-15 increased by almost 20 percentage points from just under 60 percent in 1995 to just under 80 percent in 2007. Nine of the 10 CEE countries increased their ratios by more than 20 percent; only Estonia, which was already highly open in 1995, experienced a somewhat smaller increase in the trade-to-GDP ratio.[5]



The rapid increase of the trade-to-GDP ratios in the CEE economies is also seen in their increased market shares (shares of their exports in world exports). Again, the timing and the extent vary by country but in all cases the gains are significant (Figure 2(b)). Note, as we discuss below, this is a key factor differentiating the CEE from the other regions: the increase in market shares was achieved even while the exchange rates were appreciating significantly. The appreciation is typically attributed to the so-called Balassa-Samuelson effect. While the size of this effect remains controversial, there is a more basic ongoing process. The dual processes of catch up in per capita incomes and the integration into Europe has meant that prices in the CEE countries have also been catching up with European price levels. Fighting this process of real exchange rate



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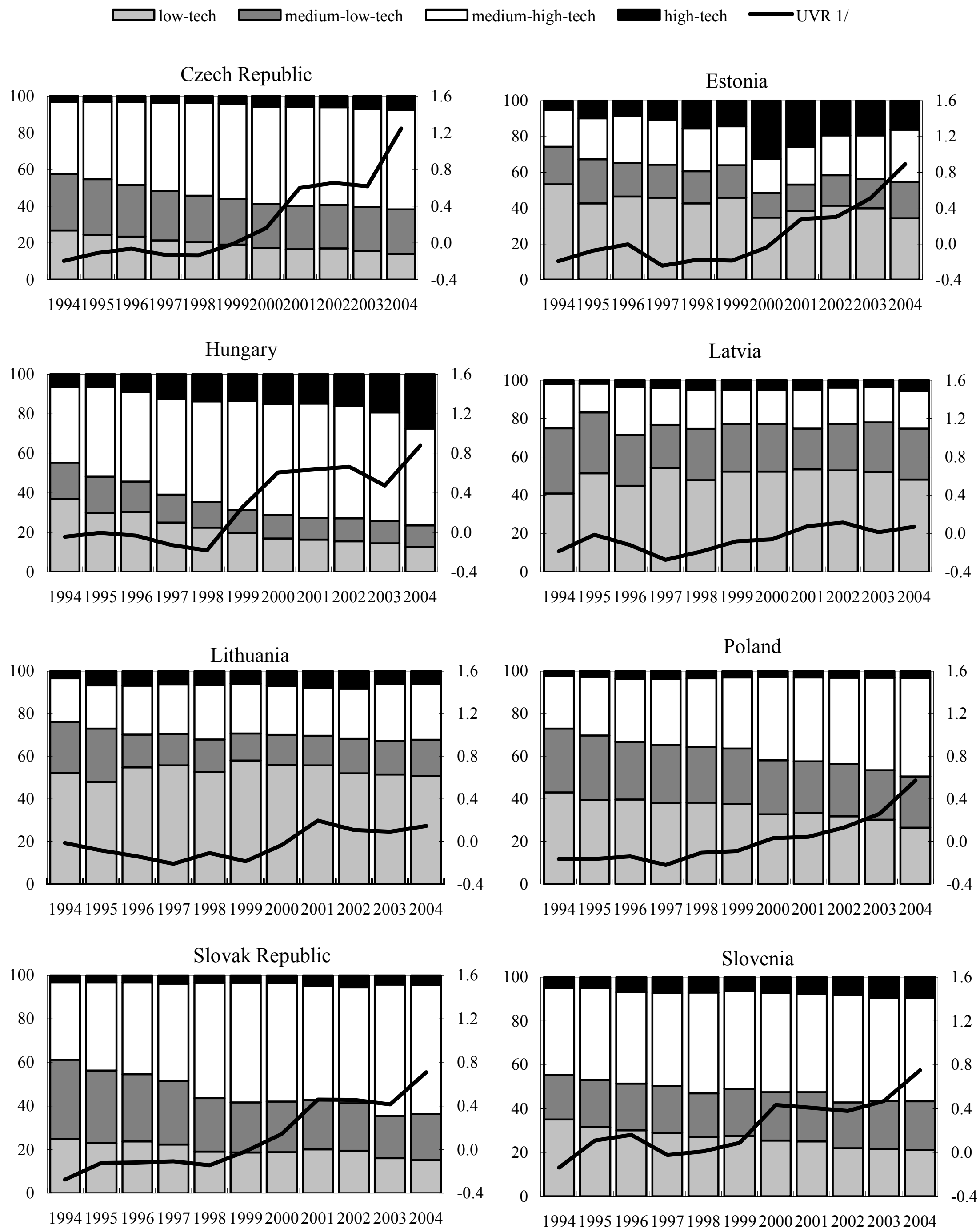
[5] Here, as elsewhere in the paper, we have not explored the implications of the geographical distribution of trade. The CEE continue to trade heavily in Europe, while the East Asian and Latin American economies rely to a much greater extent on the United States. These differences could eventually have implications for growth.

appreciation would risk negating also the gains from the convergence and integration process.

The implication, therefore, is that the combination of increased market shares with appreciation of the real exchange rate has required a substantial transformation of the economy (see also European Commission, 2003, for documentation of the transformation of the economic structure of these countries). While there are many facets of this transformation, we focus here on the structure of exports. Two findings (detailed in Fabrizio, Igan, and Mody, 2006) are a rise in the product quality and an increased technological content of the exports. These trends are summarized in Figures 3.[6] The quality of a product is proxied by the unit value of the country's exports relative to the average unit value of world's exports of the same product. For the country, then, we aggregate these unit values over finely defined products to obtain an aggregate unit value ratio. A rise in this ratio implies that the country's unit values are rising faster than that of the world. This is what we see for most countries. Figure 3 reports the logarithm of the unit value ratios and, as such, a value of zero implies that the country's product quality is at the same level as the world exports. Of the CEE countries, Latvia and Lithuania are just above the world level in 2004 (the most recent year for which disaggregated data comparable across countries is available). These countries also did not experience a significant rise in their unit value ratios or in the high- and medium-tech component of their exports (Figure 3). Thus, much of their increased export share in world trade has reflected a catch up process from under representation in global trade; it is possible that changes are occurring at a finer level that we are not able to capture. Looking ahead, they, nevertheless, face the challenge of moving beyond a phase in which gains have been relatively easy. For the rest, the changes have been substantial, both in terms of product quality and in product structure. The gains have been principally in "medium-high" technology products, as the share of the low and medium-low products has declined. At the same time, many of these products are differentiated, such that product quality is valued more so than in standardized products that are bought principally for the most competitive price (for details see Fabrizio, Igan, and Mody, 2006).

[6] This figure does not include Bulgaria and Romania; the next draft will attempt to incorporate them.

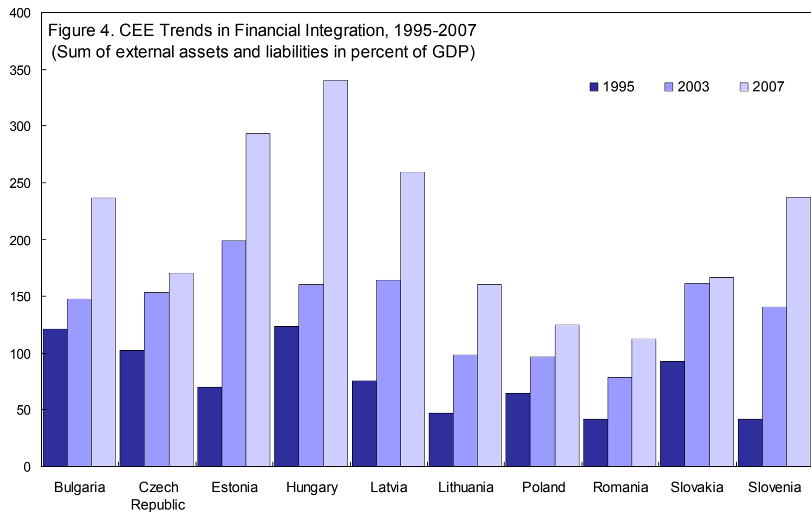
Figure 3. CEE Structural Transformation of Exports, 1994-2004
(Share in percent of country exports)



Sources: UN Comtrade; and IMF staff calculations.
1/ UVR is the unit value of a country's exports divided by the unit value of world exports. Expressed in logarithm so that a value of zero means country unit value equals world unit value.

In parallel to their trade integration, the CEE countries have proceeded rapidly towards financial integration (see European Commission, 2006). Entry into the EU has been accompanied by liberalization of their capital accounts. This has been accompanied by extensive capital inflows and outflows. While the countries have been mainly recipients of capital from abroad (mainly from advanced European countries and, especially in the early phase in the form of foreign direct investment), they have more fundamentally placed themselves in a network of capital flow transactions in the region. Foreign banks that have established subsidiaries and branches in the CEE have been conduits of foreign capital for extensive lending to domestic businesses and households. As they have been integrated into European markets, sovereigns and corporates have borrowed on international capital markets at increasing lower spreads. Before the onset of the recent financial turbulence, Lithuania was paying virtually no risk premium over the rates charged to the German sovereign. While, in retrospect, some might argue that the markets were being imprudent in pricing risk, financial integration has allowed access to substantial capital inflows. At the same time, many of the CEE (along with other countries at or below their income levels in other regions) are also exporters of capital. As their firms have acquired greater financial strength and managerial self-confidence, they have expanded by moving into neighboring countries and beyond.

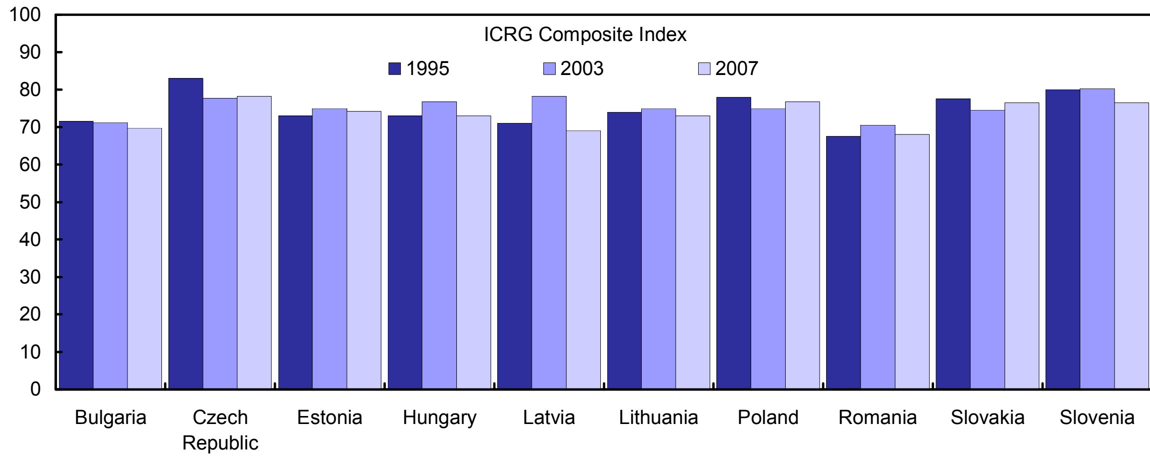
These trends are summarized in Figure 4, where financial integration is measured as the sum of external assets and external liabilities as a ratio of GDP (analogous to exports plus imports as a share of GDP). The increase in financial integration is sharp everywhere. From less than 100 percent in the mid-1990s, the financial integration ratio has increased to above 200 percent in a number of countries in just over a decade. While the metrics are not strictly comparable, this increase by about 100 percentage points in many cases is considerably larger than the 20-40 percentage points increase in trade ratios discussed above.

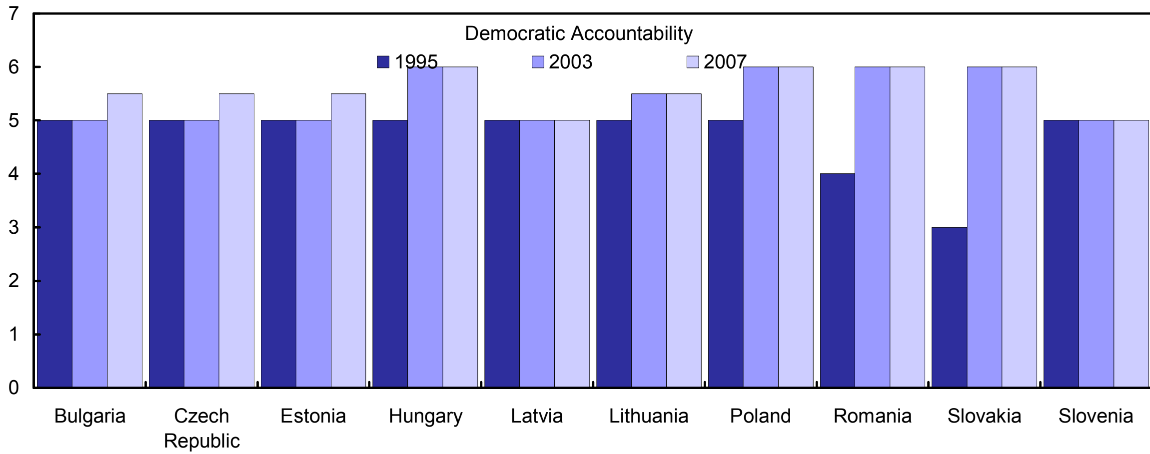


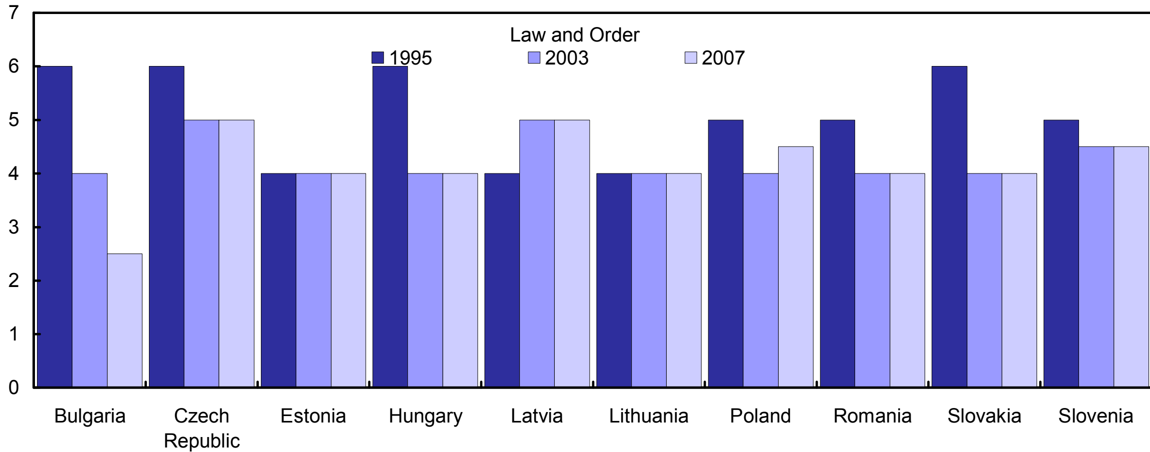
Finally, openness has been accompanied by institutional strengthening (see Roland, 2005). Strong institutions are important to sustaining the engagement with global product and financial markets and also in supporting efficient outcomes from that engagement. The extent to which this complementarity has played out in the CEE economies is not easy to identify

precisely. Fischer and Sahay (2004) do conclude that institutional strengthening in these economies has been key to their growth process (as do Schadler et al. 2006). The examination of the role of institutions in the CEE requires further thought. Fischer and Sahay (2004) use a broad measure of institutions to include the development of central banks, treasuries, tax systems, commercial law, and, more broadly, the development of the market economy through measures such as privatization. Their analysis then focuses on the variation in such measures within the group of transition economies. If instead, a comparison is sought across European emerging economies and other regions, then it is necessary to use other indices for which comparable cross-country data is available. The Figure 5 reports the governance indicators of the International Country Risk Guide (ICRG). This aggregate measure does not show large changes over time within particular countries in the CEE. As discussed below, in general, the ICRG measures show the CEE averages to be generally higher than that for the other regions; but, interestingly, over time, the other regions have caught up in the aggregate, there are subcomponents in which the CEE have apparently declined, and others in which they are lower than emerging markets in other regions. The analysis of institutions in the CEE is also complicated by the regulatory harmonization and factor mobility within the European Union (EU), reflected in its accumulated body of law, the *acquis communautaire*. Clearly, by reducing borders to the rest of Europe, these regulatory changes played an important role. On the fiscal institutions front, CEE have also made progress to varying degrees (Figure 6), with some occasional setbacks (Fabrizio and Mody, 2006 and 2008).

Figure 5. CEE Trends in Institutional Strength, 1995-2007







Source: International Country Risk Guide.

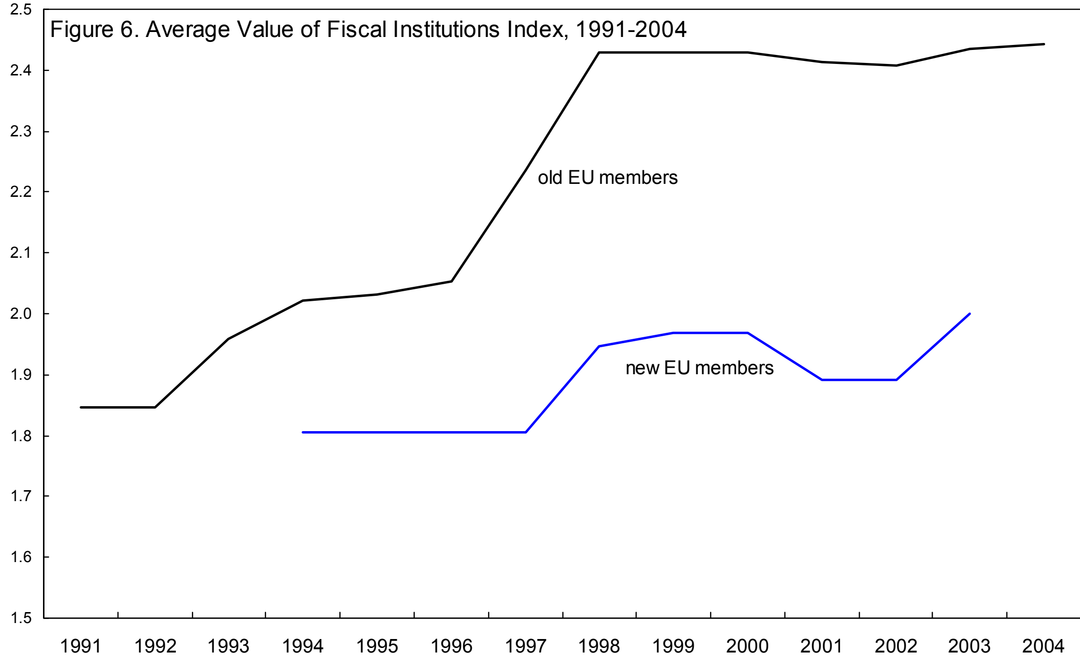


Figure 6. Average Value of Fiscal Institutions Index, 1991-2004

Source: Fabrizio and Mody (2008).

III. Emerging Market Regions in Perspective

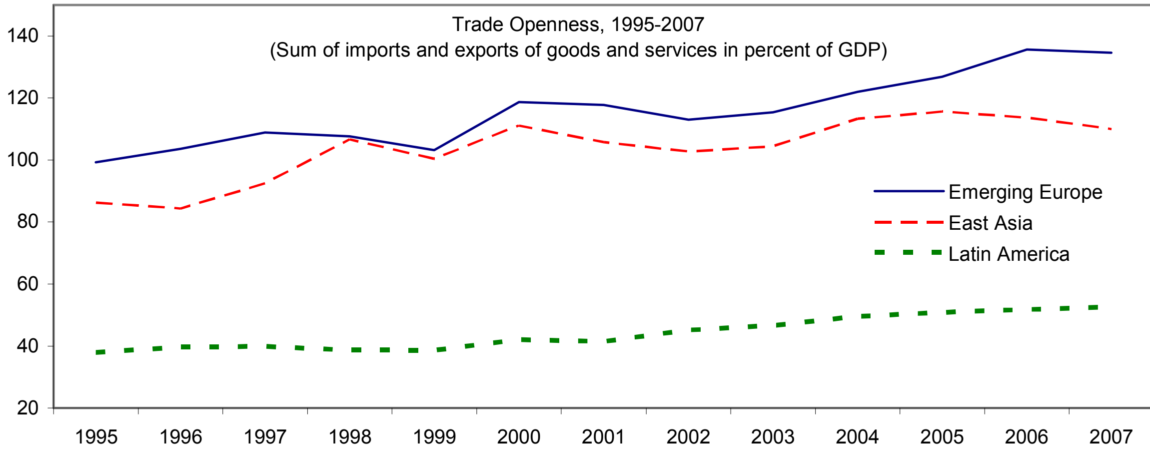
In this section, we follow the same sequence, using the same metrics, to place the CEE achievements in perspective. In summary, we conclude that the CEE have moved faster with respect to trade integration (despite their real exchange rate appreciation), have moved decisively faster in terms of financial integration, and about on par (when judged by a variety of metrics) with respect to institutional development. Given our focus here on the CEE, we do not examine the inter-country differences for Latin America and East Asia, except to point out where the inclusion in the East Asian averages of Hong Kong SAR and Singapore, two city states premised on external links, misrepresents the more general tendencies in that region. Because we do not discuss, individual country experiences in the other regions, readers may justifiably question some of our general characterizations.

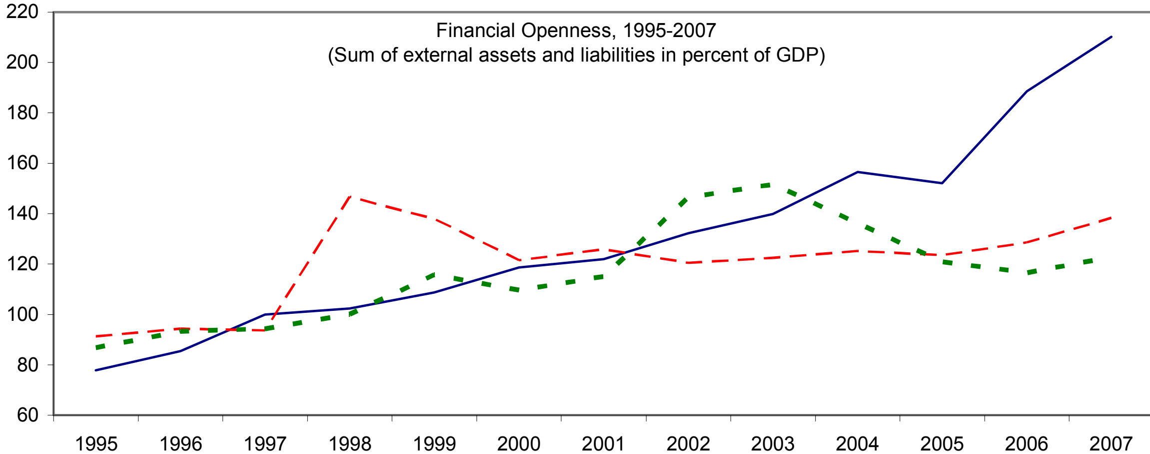
Consider, first, the trends in trade openness. For the CEE countries, the increase in openness at the country level reported in the previous section is seen in the steady rise for the region as a whole (Figure 7). East Asia's trade openness has followed a similar track (this chart excludes Hong Kong SAR and Singapore, which are very open by this measure and further raise East Asian estimated openness).

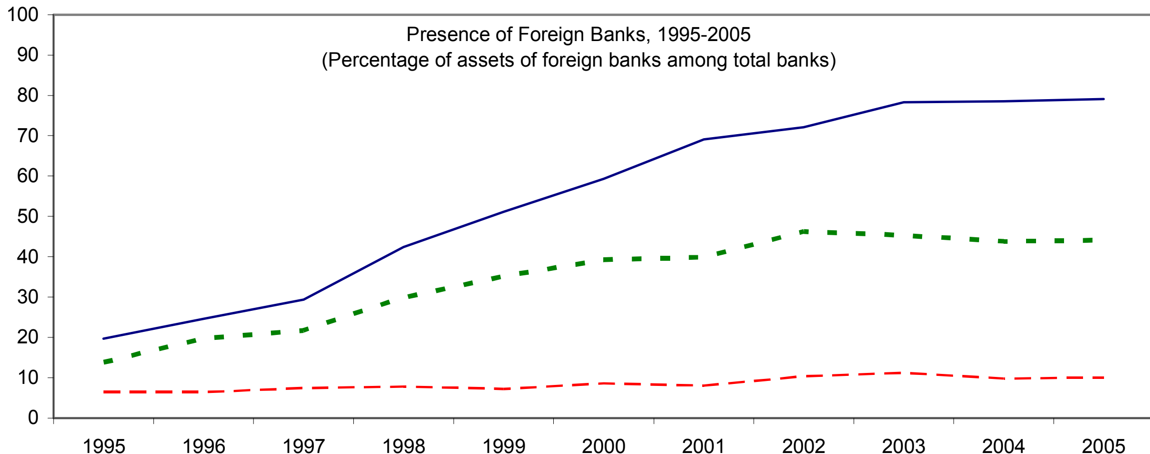
The contrast with Latin America is striking. Unlike for the CEE and East Asia, where openness has been upwards of 100 percent, that for Latin America is closer to 50 percent. As we have cautioned above, these regional comparisons need to be interpreted with care. Some of the Latin American countries, e.g., Brazil, are large and it is to be expected that trade will play a smaller role in large countries. Nevertheless, even the increase over time in Latin America's openness index has been lackluster. These trends are mirrored in export shares (Figure 8). Starting from a low base of just above 1½ percent of world exports in 1995, the CEE share approached 4 percent in 2007. East Asia was an exporting powerhouse already in 1995 but nevertheless increased its share of the world market by about 3 percentage points by 2007 to almost 20 percent. The Latin American world share, in contrast, remained in a narrow range between 4 and 5 percent. It is possible to interpret the data as suggesting that there was some modest increase in Latin America's share between 1995 and 2000 but that it is remained stable since then, while the CEE and East Asia have continued to gain ground.

The juxtaposition of these trends in export shares against real exchange rate trends highlights an important difference between the CEE and East Asia. In the CEE, as noted above, the real exchange rate has steadily appreciated but despite that export shares have also increased. East Asia's real exchange rate, in contrast, has trended down, although since 2004 the downtrend may have partially reversed. Thus, East Asian gain in market share has at least in part been helped by favorable exchange rate movements. The Latin American real exchange rate has, along with its export share, remained relatively flat.

Figure 7. Regional Trends in Trade and Financial Openness, 1995-2007

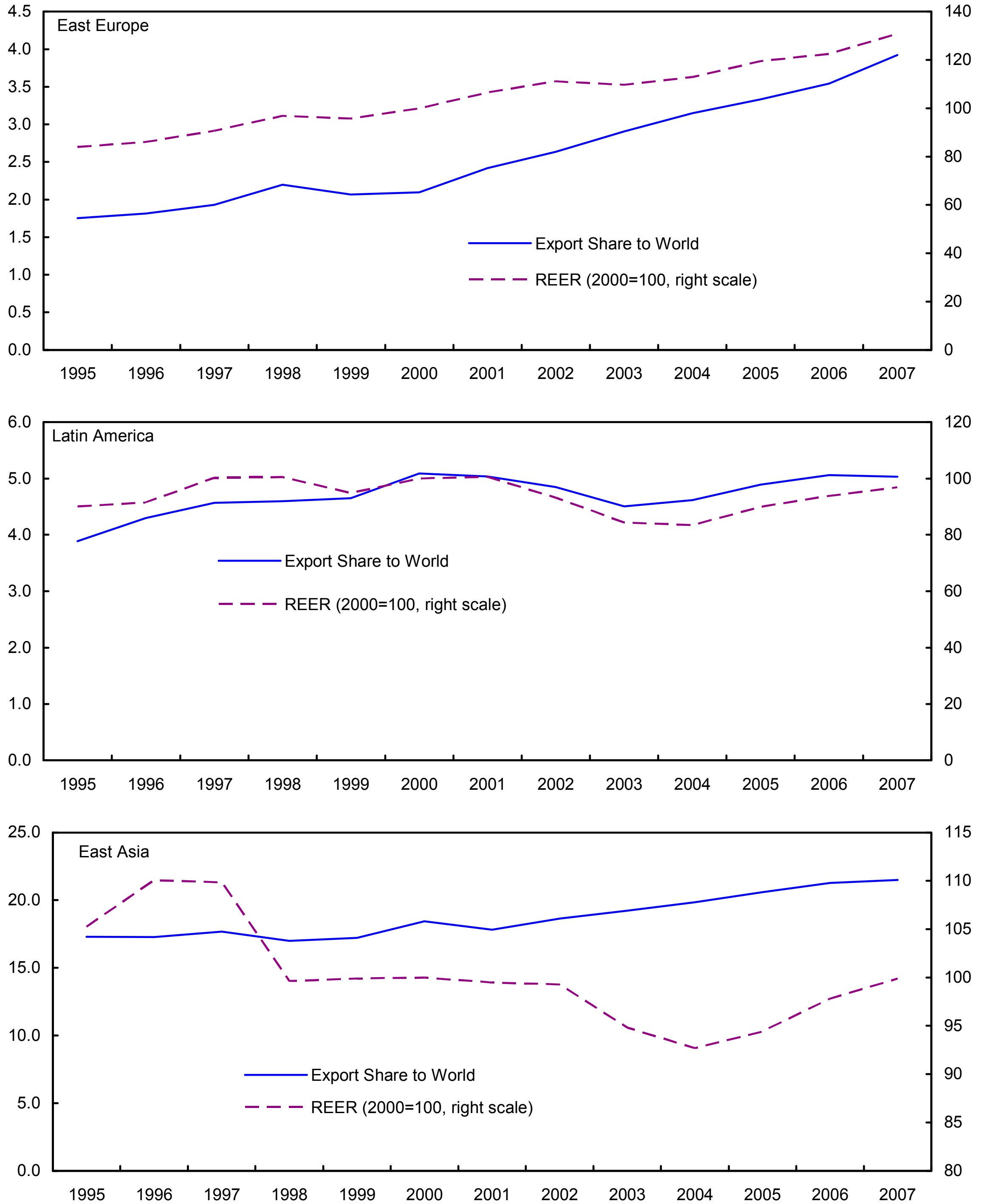






Source: IMF.

Figure 8. Regional Trends in Export Shares and Real Effective Exchange Rates, 1995-2007



Source: IMF, DOT and INS.

These trends are linked to those in financial integration and current account developments. Here the differentiation between the CEE and East Asia sharpens. The CEE openness ratio increased from about 75 percent in 1995 to about 225 percent in 2007, a three-fold increase. Though East was also trending up in the 1990s, following the crisis in the later part of the decade, that trend came to an abrupt stop. In this regard, East Asia and Latin America are closer to each other, in level and even trend. Further, in Abiad, Leigh, and Mody (2008) we argue that financial integration in Europe has been associated with a downhill flow of capital from rich to poor countries. This has meant that the CEE economies have run current account deficits reflecting the inflow of capital (Figure 9). The East Asian economies, as is well known, have run surpluses in recent years. Thus, the East Asian economies while restricting their further international financial engagement also began to self insure by running surpluses and accumulating reserves. While the CEE economies have been able to supplement domestic savings with foreign savings, allowing consumption to rise in anticipation of future income growth. In this regard, as with financial integration, Latin America has tended to be more like East Asia, with a greater tendency over time to self insure.

Finally, we once again see that the CEE emphasis on trade and financial openness has been supported by strong institutions (Figure 10). Here, there are three observations, which require further analysis and reflection. First, in the aggregate ICRG measure, the CEE have overall led the other regions. In the most recent years, though, the others have caught up and the small fall in the CEE reflects a downgrading of Latvia by the CEE. Second, the one area in which the CEE have both led and improved their performance is "democratic accountability," though again by this measure, the others have also caught up. Finally, in terms of "law and order," all are thought to have declined in effectiveness.

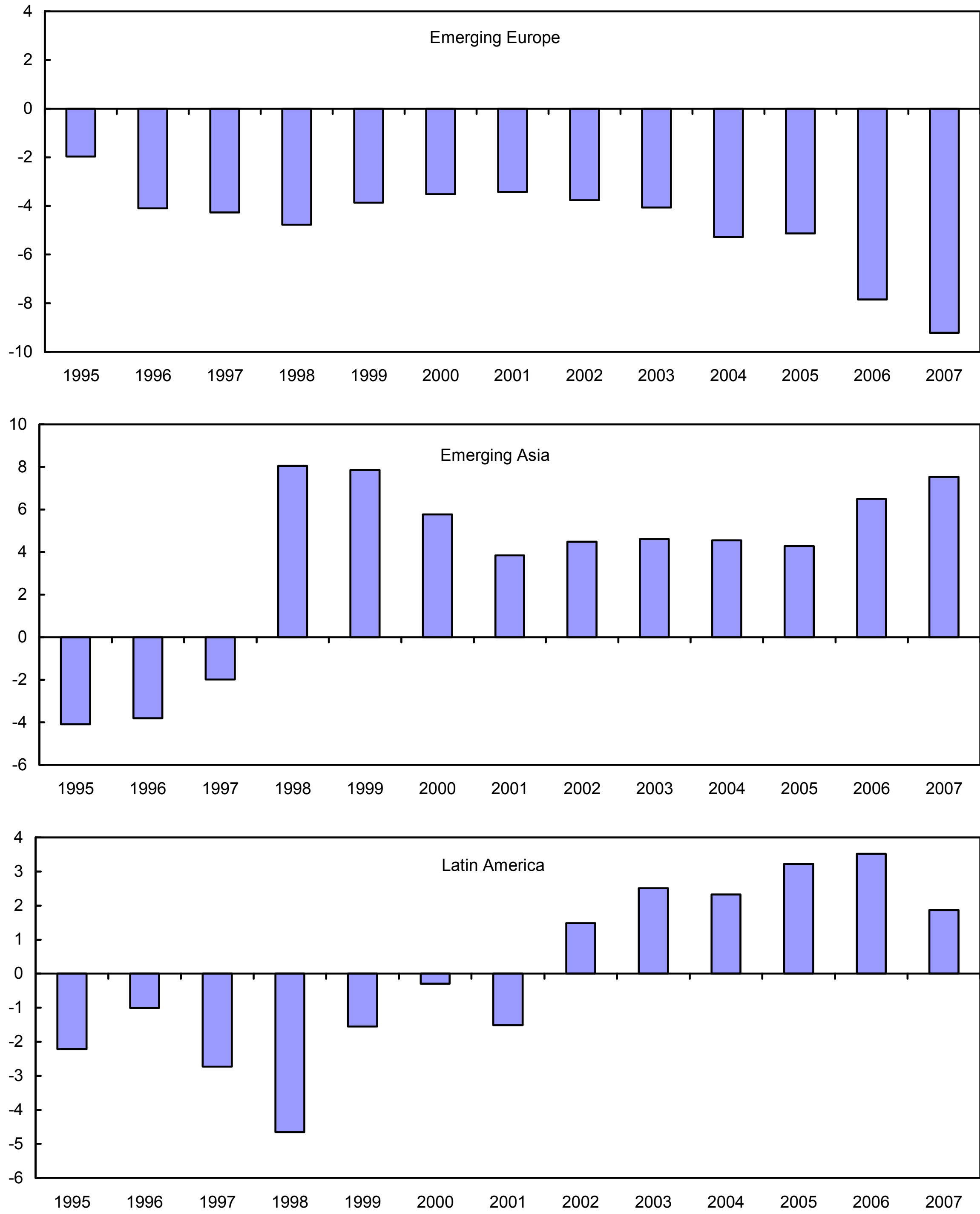
IV. Growth Outcomes

These trends can now be related to growth outcomes. This section reports new work on growth accelerations and some results also from earlier comparative cross-country growth analysis. In general, the picture that emerges is that the CEE performance in recent years is impressive, but it is about on par with East Asia.

A. Accelerations

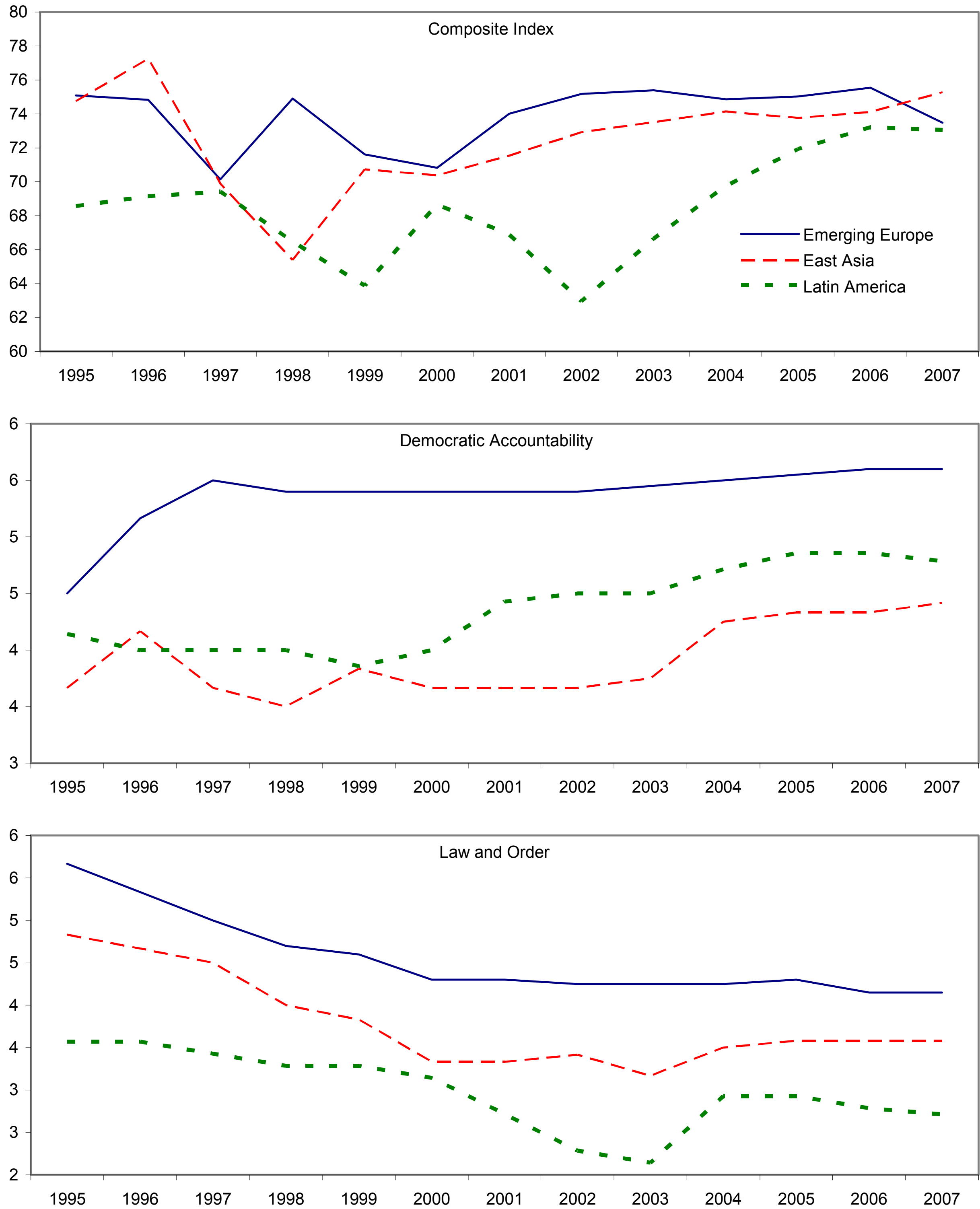
This section focuses on turning points in growth performance, i.e., rapid accelerations in growth that are sustained for at least five years, and attempts to differentiate growth accelerations in the CEEs from those observed elsewhere. Box 1 details the criteria for assessing growth "accelerations" and Table 1 reports the identified growth acceleration episodes. These are broadly consistent with the episodes identified by Hausmann, Pritchett, and Rodrik (2005).

Figure 9. Current Account Trends, 1995-2007
(External Current Account Balance in percent of GDP)



Source: IMF.

Figure 10. Regional Trends in Institutional Strengthening, 1995-2007



Sources: International Country Risk Guide (2008) and authors' estimates.

Box 1. Growth Accelerations: Methodology and Data

The key feature of a growth takeoff is a both a high *level* of growth and a substantial *acceleration* in growth. Following the methodology of Hausmann, Pritchett, and Rodrik (2005), growth accelerations are defined as episodes in which the real per capita PPP GDP growth rate increases by at least 2 percentage points, and in which growth averages at least 3.5 percent per year over a five-year horizon.[1]

Formally, let growth rate $g_{t,t+n}$ denote the growth rate of GDP per capita (y) at time t over horizon n, where:

$$g_{t,t+i} = \ln(y_{t+i}) - \ln(y_t), \quad i=1, \ldots, n.$$

Let the initial horizon, i.e. the minimum length of growth accelerations, be N, and the change in the growth rate at time t be Δg_t, where $\Delta g_t = g_{t,t+n} - g_{t-n,t}$

Identification of the onset of growth accelerations is based on the following two criteria:

(1) $g_{t,t+n} \geq Z$ percent per annum, i.e., growth is rapid; and
(2) $\Delta g_t \geq Y$ percent per annum, i.e., growth accelerates.

Once a growth acceleration is underway, identification of the end of the acceleration is based on the following two criteria:

(3) $g_{t,t+n} \leq X \rightarrow$ growth for the following N-year period dips below X percent per annum;
(4) $g_{t+1,t+2} \leq W \rightarrow$ annual growth for the following year dips below W percent per annum.

The parameters used for the analysis are $N = 5$; $Z = 3.5$; $Y = 2$; $X = 2$; $W = 3$. Relaxing the thresholds for identifying growth takeoffs produces a larger number of accelerations.

The regions included in the analysis include: (i) a global sample comprising all countries with a peak population of more than 1 million; (ii) the CEE; (iii) East Asia and Pacific (Cambodia, China, Hong Kong SAR, Indonesia, Korea, Lao, Malaysia, Mongolia, Papua New Guinea, Philippines, Singapore, Thailand, and Vietnam); and (iv) Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela). Since $N = 5$, the earliest and latest years for start of growth acceleration are 1965 and 2002, respectively.

[1]The algorithm for identifying growth accelerations was generously provided by Jeromin Zettelmeyer and Jean Salvati.

Table 1. Growth Acceleration Episodes, by Region

Region	Country	Year	Growth Before	Growth After	Difference in Growth	Duration
Emerging Europe	Bulgaria	1998	-3.8	5.1	8.9	9
	Czech Republic	2000	1.1	4.4	3.2	7
	Estonia	1992	-6.5	3.5	10.0	15
	Hungary	1995	-2.1	3.8	5.9	12
	Latvia	1994	-12.1	3.8	15.9	13
	Lithuania	1996	-8.8	3.5	12.3	11
	Poland	1991	-1.7	4.4	6.1	16
	Romania	1999	-0.1	4.9	5.0	8
	Slovak Republic	1993	-6.5	4.8	11.3	14
	Slovenia	1995	-0.5	4.3	4.8	12
East Asia Pacific	Cambodia	1999	0.9	4.7	3.8	8
	China,P.R.	1976	1.5	4.6	3.0	31
	Hong Kong SAR	1968	5.8	8.7	2.8	26
	Hong Kong SAR	1999	-0.5	3.5	4.0	8
	Indonesia	1965	-0.9	3.9	4.8	31
	Indonesia	2002	-1.5	4.2	5.7	5
	Korea	1965	3.7	8.2	4.5	42
	Lao People's Dem.Rep	1991	1.0	4.0	3.0	16
	Malaysia	1969	3.1	5.3	2.2	15
	Malaysia	1989	1.6	5.6	4.0	8
	Mongolia	2000	1.8	4.1	2.4	7
	Papua New Guinea	1969	1.8	4.3	2.5	4
	Papua New Guinea	1988	0.6	5.0	4.4	6
	Singapore	1965	7.1	10.7	3.6	32
	Thailand	1975	2.6	5.5	2.9	21
	Thailand	2001	-0.4	4.8	5.2	6
	Vietnam	1989	2.1	4.3	2.2	18

Table 1. Continued.

Region	Country	Year	Growth Before	Growth After	Difference in Growth	Duration
Latin America	Argentina	1966	1.2	3.5	2.3	5
	Argentina	1989	-3.8	6.5	10.3	8
	Argentina	2002	-4.3	7.5	11.8	5
	Bolivia	1971	-1.9	3.6	5.5	5
	Brazil	1966	2.0	6.2	4.3	11
	Chile	1975	-2.8	5.2	8.0	5
	Chile	1985	-1.6	4.2	5.8	13
	Colombia	1967	1.2	4.0	2.8	12
	Colombia	2002	-0.8	4.0	4.8	5
	Costa Rica	2002	1.8	4.4	2.6	5
	Dominican Republic	1967	-0.8	5.1	5.9	8
	Dominican Republic	1991	0.0	4.5	4.5	16
	Ecuador	1968	1.9	6.6	4.7	10
	Guatemala	1967	2.0	4.0	2.0	13
	Haiti	1975	-0.2	3.7	3.9	5
	Haiti	1989	-2.7	3.7	6.4	9
	Honduras	1974	0.5	4.0	3.6	5
	Jamaica	1967	2.9	6.7	3.8	5
	Jamaica	1985	-0.9	4.4	5.3	5
	Mexico	1995	-0.4	4.0	4.4	5
	Panama	1975	1.9	4.8	2.8	7
	Panama	2001	1.1	4.2	3.1	6
	Paraguay	1973	2.5	5.2	2.6	8
	Peru	1990	-4.0	4.2	8.2	5
	Peru	2001	0.3	4.7	4.4	6
	Trinidad and Tobago	1971	0.7	5.5	4.8	11
	Trinidad and Tobago	1994	-0.6	4.0	4.6	13
	Uruguay	1974	1.0	4.2	3.3	6
	Uruguay	1991	2.1	4.2	2.1	7
	Venezuela, Rep. Bol.	2002	-3.4	5.5	8.9	5

Note: table reports growth during five-year period before start of acceleration, growth during first five years of acceleration episode, and the difference in growth.

There were a large number of growth accelerations in the CEE in the past 15 years. In the original Hausmann, Pritchett, and Rodrik (2005) article, which introduced this concept of accelerations, there were only two CEE accelerations because their data stopped in 1997. Table 2 reports the estimated (unconditional) probability of growth acceleration. The probability is defined as the number of growth acceleration episodes divided by the number of country-years in which an episode could have occurred. For the global sample, the average probability is found to be 4 percent, implying that a typical country would have a chance of about 33 percent of experiencing a growth takeoff in a given decade. In the CEEs, the estimated probability is higher, at about 7 percent per year, somewhat higher than that in East Asia and Latin America. However, the table also suggests that the longevity of growth spurts has been greatest in East Asia, averaging 15 years, compared with 12 years for the CEE, and 8 years for Latin America.[7]

Table 2. Frequency of Growth Accelerations, by Region

Region	Frequency (percent)	Avg. Duration	Episodes	Observations
All	4.0	9	157	3956
CEE	6.9	12	10	144
East Asia Pacific	4.4	15	20	457
Latin America	4.3	8	30	698
Memo items:				
Middle East North Africa	3.5	9	14	395
South Saharan Africa	3.9	7	50	1270

Table reports number of growth episodes divided by number of observations in each region.

Table 3 examines what variables are correlated with the start of growth accelerations. The table reports the average change in the value of a given variable during the first five years of growth acceleration. It also reports whether the change is significantly different from zero.[8] The general trends reported in the previous section are amply confirmed for the growth acceleration episodes.

[7] The analysis is based on data up to end-2007.

[8] The timing of the growth acceleration is taken to be the 3-year period centered on the dates listed in Table 1. A three-year window reduces the risk of narrowly missing the timing of acceleration.

Table 3. Correlates of Growth Accelerations
(Change during first five years)

Region	All	CEE	EAP	LAC
Macroeconomic Circumstances				
Investment/GDP	1.865***	3.147**	3.197***	2.293***
Exports/GDP	0.70	4.26	4.79	1.85
Imports/GDP	1.49	7.141***	1.64	0.73
REER (increase = appreciation)	-3.86	21.94***	-20.55*	0.22
Inflation	-86.08***	-118.5**	-17.82	-61.92
Terms of Trade	4.115**	6.807***	4.70	6.954*
CA deficit/GDP	-0.749*	3.618**	-1.45	-1.21
Political Circumstances				
Polity IV: Composite	0.28	0.963*	-0.26	0.48
Polity IV: Excecutive Constraints	0.121*	0.296*	-0.03	0.313*
ICRG: Composite Index	6.626***	6.262**	5.682**	7.900***
ICRG: Democratic Accountability	0.405***	0.594**	-0.21	0.529***
EU Integration Index		0.220***		
Economic Liberalization				
Trade Openness	7.485***	8.360*	25.21***	5.053***
Financial Openness (de facto)	27.66***	33.05***	1.45	14.88*
Financial Openness (de jure)	0.228***	1.165***	0.15	0.28
Presence of Foreign Banks	16.06***	40.92***	18.38***	-2.88
Private Credit/GDP	2.850***	0.88	2.51	2.359**
EBRD - Large scale privatn.		0.975***		
EBRD - Small scale privatn.		0.764***		
EBRD - Enterprise restruct.		0.605***		
EBRD - Price liberalization		0.369***		
EBRD - Trade and forex		0.665***		
EBRD - Competition policy		0.543***		
EBRD - Banking reform		0.765***		
EBRD - Securities markets		0.889***		
EBRD - Overall infrastr.		0.937***		

Statistical significance at the 1, 5, and 10 percent level denoted by ***, **, and *, respectively.

- Growth accelerations in CEE have many standard features, such as increases in private investment, declines in inflation, and improvements in the terms of trade.

- While trade openness—increased exports and imports—are associated with growth accelerations, in the CEE, stepped-up imports are more salient, consistent with their increased current account deficits during accelerations. The difference with the other two regions is clear.

- Another key difference is the significant appreciation in real exchange rate within the CEE, which contrasts with depreciation during the growth accelerations in East Asia.

- Financial openness and the presence of foreign banks also more reliably predict growth accelerations in the CEE.[9]

- Increasing democratic accountability and institutional quality, as measured by widely-used indicators, play a particularly important role in CEE growth accelerations.[10]

- Finally, the process of integration with the European Union (EU)—measured by an index capturing membership application, negotiation, accession, ERM-II entry, and Euro adoption—is a statistically significant predictor of growth accelerations.[11] Furthermore, a regression analysis suggests that EU integration has predictive power for growth accelerations that goes beyond that contained in standard indicators of institutional quality and economic liberalization (not reported here).

[9] The presence of foreign banks is measured as the percentage of foreign banks in total bank assets, and is taken from Claessens et al. (2008). In related work, Herrmann and Winkler (2008) find evidence that the presence of foreign banks contributes to explaining the difference between the current account balances of emerging Asia and CEE countries. De-facto financial openness is measured as the sum of external assets and liabilities in percent of GDP. De-jure financial openness is measured using an updated version of the widely-used Chinn and Ito (2006) capital-account-openness index.

[10] The Polity IV database has been widely used by researchers as a source of data on political-institutional features (see Center for International Development and Conflict Management, 2007). The Polity IV composite index ranks countries' political institutions on a 21-point scale, with higher values corresponding to greater degree of democracy than autocracy. The Polity IV executive constraints sub-index measures the extent of institutionalized constraints on the decision-making powers of chief executives, and ranges from 0 to 10 with a higher score indicating less de facto operational independence (and more accountability) of the country's chief executive.

[11] Following Danninger and Jaumotte (2008), the index measures the degree of European integration, and is built as a score (from 0 to 1) for achieving different stages of the formal integration process, namely 0.2 points each for EU membership application, initiation of negotiation for EU membership, EU accession, entry into ERM II, and euro adoption.

B. Traditional Growth Analysis

In more conventional growth studies (Schadler et al., 2006 and Abiad, Leigh, and Mody, 2008), we reach several conclusions that underline the achievements of the CEEs while also offering cautionary lessons. First, total factor productivity growth has played a significantly more important role in the CEE during recent years than is the case in East Asia; in Latin America, total factor productivity has either been flat or even tended to decline. Second, some of the gains achieved by the CEE were related to exogenous factors. The Baltic nations, in particular, started with low initial per capita incomes allowing for more scope for catch up. Throughout the CEE region, relatively low population growth rates have also helped in achieving per capita income gains. Third, policy institutional development has helped the CEEs: but here the picture is mixed. The Baltic countries, in particular, have benefited from small governments, trade openness, advances in education, and institutional development. The Central European economies also benefit from trade openness and enjoy the educational and institutional advantages but their larger government size, the cross-country regressions suggest, pulls their growth down. Finally, a key advantage that the CEE economies enjoy is access to foreign capital. Abiad, Leigh, and Mody (2008) show that in the CEE, the downward flow of capital has been associated with more rapid income convergence. While all CEEs have benefited from this process, those with lower income gained more.

In sum, while the advantages vis-à-vis Latin America are clear, the mix of factors vis-à-vis East Asia do not give the CEE a decisive advantage. While openness and institutional development have complemented each other to give the CEE a strong boost, important challenges lie ahead. As the Baltic nations made further progress, the easy catch up possibilities will be increasingly exhausted. For the Central European economies, the challenges are also likely to come from fiscal challenges. Achieving leaner governments will imply making difficult choices on expenditure priorities and greater efficiency of public service delivery; this, in turn, will allow lowering tax rates increasingly necessitated by international tax competition. Not least, the very openness of the CEEs, especially financial openness, exposes them to a reversal of capital of flows. Even if sudden stops in capital flows do not materialize, Blanchard (2006) has cautioned that continued real exchange rate appreciation may yet produce new tests of competitiveness.

V. Financial Turbulence: A Test of the Economic Model?

The ongoing financial turbulence has put the CEE model to test. Current accounts are shrinking and growth is slowing rapidly. Some economies are contracting. Economic convergence will almost certainly be set back in the short run. But a bigger risk is that the reinforcing relationship between capital inflows and growth on which the CEE model is based could break down. This would reaffirm the view of some that the model is inherently unstable, either because capital flows are fickle or because the incentives of policymakers, firms, and households ultimately generates behavior that proves inimical to the success of the

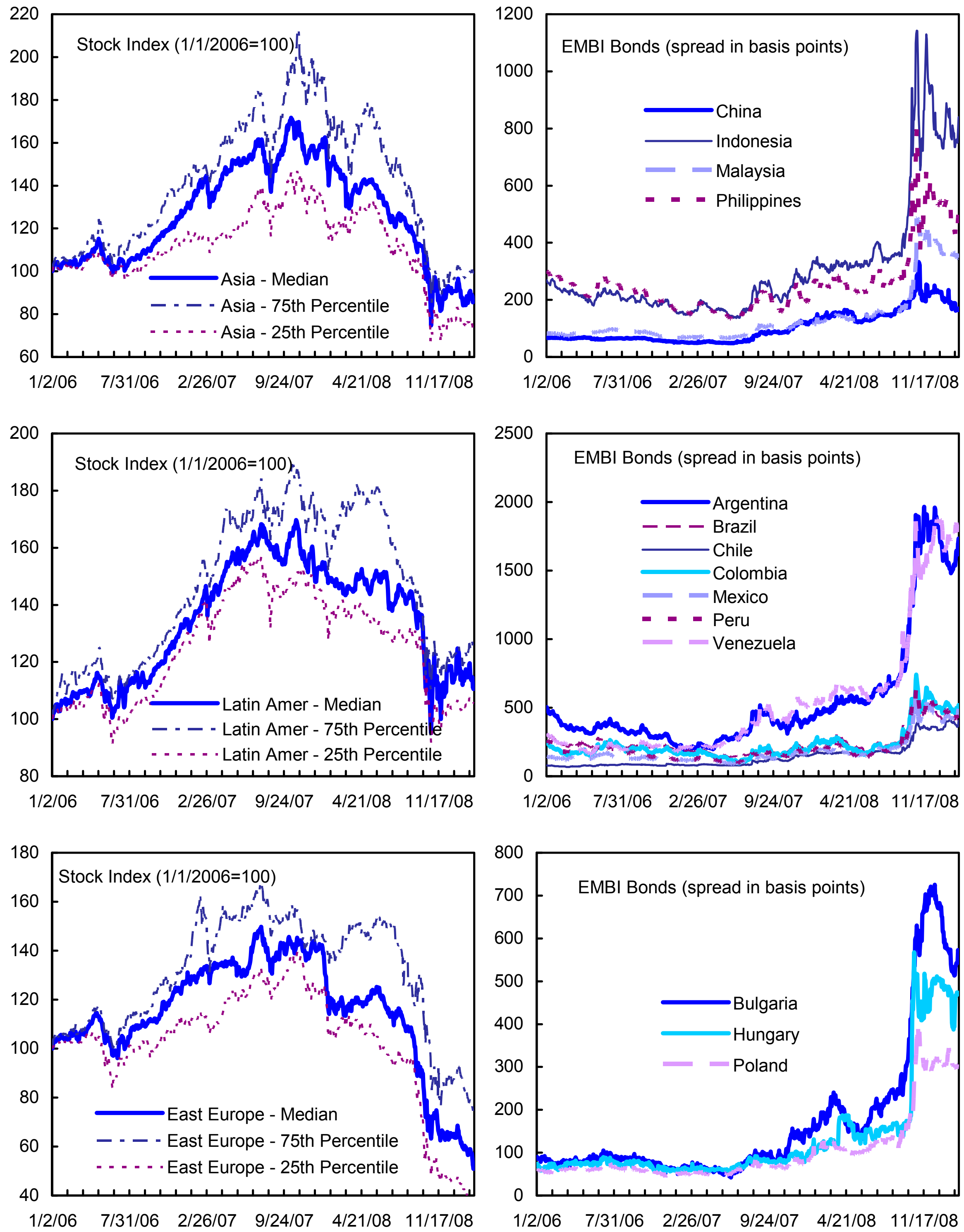
model. Keen observers remain concerned that Eastern Europe, with its current account deficits and elevated international financial exposure, will prove to be particularly vulnerable to ongoing developments. Thus, Paul Krugman has written on his blog (October 31, 2008):

> "Eastern Europe 2008 = East Asia 1997. The key to the Asian crisis—and of Argentina's collapse in 2002—was the way domestic players leveraged themselves up with foreign-currency loans. When the capital inflows dried up, and the Asian currencies plunged, these debts suddenly became a much bigger burden, decimating balance sheets and causing a downward spiral of deleveraging. And here we go again."

Our perspective on the prognosis is as follows. The world has been subject to a massive shock. The waves from this shock have continued to extend their reach, including in their fold a wider range of financial instruments and markets and a broader range of countries. With the announcement that Chinese exports had fallen on a year-on-year basis in November, the crisis had clearly delivered a blow Asia. Growth forecasts for 2009 and 2010 continue to be marked down—the process is ongoing and the results are not known. Within the context of this broad correlated shock, markets have differentiated countries. Our reading of the data is that the country differentiation is greater than regional differentiation. In turn, the country differentiation reflects specific policies and vulnerabilities that are being spotlighted and, possibly, amplified by the global shock.

If we examine indicators measuring financial stress, such as stock prices, sovereign bond spreads, and exchange rates, systematic singling out of the CEE does not appear to have occurred. In particular, while CEE countries appear to have experienced greater financial stress as measured by stock price indexes, they have, as a group, been less severely hit based on sovereign bond spreads. To illustrate this point, Figure 11 shows the median stock price index (bordered by the 25th and 75th percentile indices) with January 1, 2006 as the base, and the EMBI sovereign bond spread. Relative to it's peak, the median stock-price index fell 66 percent for the CEE, 35 percent for Latin America, and 50 percent for the Asian countries in our sample. However, the data on sovereign bond spreads–available only for a few countries—suggests a more favorable performance for the CEE. Limited though the data are, they suggest that sovereign bond spreads increased less for the CEE than for the other regions. While the correlated risks across the world have raised spreads in the CEE, these have gone up elsewhere also. Luengnaruemitchai and Schadler (2007) in analysis before the recent crisis argued that the spreads in the CEEs were lower not only in absolute terms but also after controlling for country features explaining bond spreads. Average spreads in the CEEs still appear low.

Figure 11. Financial Stress



Source: Source: Thomson Financial/Reuters/DataStream. Note: figure rports data from January 1 2006 to February 19 2009.

As such, the evidence points to particular hot spots associated with specific vulnerabilities within each region. Hungary had difficulties in rolling over its public debt and asked the IMF and the international community for financial support. The markets' early focus on Hungary reflected chronic budget deficits and rising public debt. While these have come under greater control in the past few years, the recent history of missed targets will require sustained effort to rebuild a reputation for fiscal discipline. In this sense, the stress on Hungarian bond and currency markets reflected markets' traditional concern with sovereign policy credibility and long-term fiscal sustainability. Latvia with its large current account deficits has also sought external financial support. The Latvian story is more clearly tied to the specific CEE growth model. The Latvian case was one where that model was pushed hard, exceeding by most measures the appropriate speed limits. In Abiad, Leigh, and Mody (2008), we argue that although Latvia's relatively low per capita income and its financial integration into Europe created the basis for running a significant current account deficit, the actual deficits in 2006 and 2007 were well above those norms.

Countries in other regions are facing their own stresses. Asian economies have, for such an eventuality, built up significant foreign exchange reserves. But as the crisis has spread, and their short-term growth prospects have dimmed, countries within Asia have faced differing degrees of financial pressure associated with the rollover of private international debt. Indonesia and Korea have experienced sharp currency depreciation and are continuing to lose foreign exchange reserves. While policy responses have helped mitigate the pressures, these examples further emphasize that, even within the context of a global shock, markets have not been guided by perceptions of common regional vulnerabilities but have thus far been more subtle in the distinctions made.[12]

The fallout from the financial tensions will continue. The deleveraging of the financial sector can be expected to interact with a weakening global economy, creating a financial-accelerator-like process. The intensity of this process will depend, however, in significant part on the wisdom and the international coordination of the policies adopted. As such, the test of the CEE model will continue to unfold. Our analysis offers some grounds for hope. The strength of institutions developed over the past 15 years or so should provide considerable flexibility and buffers to absorb the shocks.

VI. Conclusions

Looking across the regions, the role of trade openness stands out as a central element of the growth process. East Asia has harnessed the potential of such openness over a long period of time to reinforce and renew its growth and the CEE experience of the last 15 years

[12] Particularities of countries include their relationships to international banks of varying strengths and vulnerabilities.

confirms that association. The use of cross-country regressions to infer causal effect of trade openness on growth has often been questioned (see Rodriguez and Rodrik, 2000). It is possible, and indeed, likely that the causation works both ways, but what is clear is that over any medium-term spell, growth and trade openness are strongly associated with each other. Openness brings ideas and competition—competition not just to local producers of goods and services, but competition also in the political arena, helping challenge constituencies favoring the status quo. The continued lag in trade openness remains an important distinguishing feature of Latin America. As Zettlemeyer (2006) notes, the reduction of tariff barriers has helped; but, possibly non-tariff regulatory barriers have held back a more dynamic relationship with international markets.[13]

Seen over an extended period of the past half century, East Asia's performance remains remarkable for the strength and persistence of its growth. The most successful of the economies of this region have been consistently able to renew themselves, overcoming their own growth bottlenecks and adapting to the changing international environment. In this perspective, the CEE achievements, while clearly impressive, are more recent and the ability of their approach to deliver sustained increases in standards of living remains to proven.

As such, the major achievement of the CEE—an achievement of interest to analysts of the development and growth process but more so to policymakers in the region who must sake to preserve it—is the harnessing of market forces in the context of rapid globalization and alongside an unequivocal commitment to open domestic democratic processes. As this paper has argued, the CEE economies have gone farther in using the potential of global markets than other regions. This has been so especially with regard to financial openness where the continued push towards increased financial integration has been remarkable not only for its strength but also because the others have turned their back on it just as the CEEs have pushed forward. In doing so, they were able to give their populations an earlier consumption dividend from this growth and integration process than has typically been possible in prior growth episodes.

To the extent that this model has been successful, some would argue that it is not replicable. The CEE economies—despite the trauma of the first transition from central planning—emerged with a distinguishing depth of human capital. Moreover, as they transitioned from their former isolation, they found themselves in the midst of thriving product and financial markets. And, the embrace into the EU, through its emphasis on regulatory harmonization, strengthened institutional structures and, by reducing the barrier of "borders," reinforced their integration into European markets. Testing these propositions is no easy task, and we do not attempt it here. Nevertheless, in recent work, we have argued

[13] There are other, some would argue more important, factors that have held back Latin American growth, including a heavier reliance on natural resources, deeper inequalities, and a political and economic interaction that generates greater volatility (Zettlemeyer, 2006) reviews the many strands of these discussions.

that this experience may well provide some valuable lessons for the opportunities that will arise as nations become more financially integrated (Abiad, Leigh, and Mody, 2008).

Looking ahead, the CEEs face three challenges. The first is from financial integration itself. The longer the global turbulence continues, the more the CEE model will be tested. It is already clear that the Baltic nations are facing a severe pull back in their growth rates. This is not completely surprising: they were growing at a pace that was perhaps in any case not sustainable. The retrenchment of external capital has ensured a more rapid curtailment than many had expected. The test of the model will lie in whether the Baltics or other countries in the region face a more traditional "sudden stop," with severe output losses. If that were to happen, concerns from prior developmental experiences to accelerate growth with foreign capital will be reinforced. This test is going to be a severe one to the extent that it occurs in the context of a broader global and systemic retrenchment of financial markets. In that sense, a reading of the ongoing experience will need to distinguish between large exogenous global shocks and unsustainable debt structures that in the past have triggered emerging market crises.

Beyond the immediate concerns, there remains the challenge of generating continuing productivity growth. Some part of the achievement in this regard may well have been easy pickings as capital and labor were more productively deployed. But clearly, the shifts in production structure and quality are evidence that a more fundamental transformation has also occurred. The question is: can this continue? And, if not, will the relentless appreciation of the real exchange rate (as prices and wages move towards levels of advanced European nations) undermine competitiveness. That this is no idle speculation has been emphasized by Blanchard (2006) in his review of the Portuguese experience. Entry into the euro area allowed the Portuguese economy to attract foreign capital and grow rapidly. But a failure to strengthen internal sources of productivity abruptly changed the dynamic. From large current account deficits and high growth, Portugal went to continued large external deficits and low growth. Blanchard warns that when placed in this setting of external deficits and low growth, the policy options are limited and returning to the more virtuous growth cycle is difficult.

And, that highlights the final challenge. While the forces of globalization—and must—be usefully harnessed to achieve long-term growth, domestic policies must keep pace to productively participate in that potential but also to guard against adverse developments. Going forward, the task becomes harder as political constituencies are more effectively able to pursue their self interest. No where is this more of an issue than in the allocation of budgetary resources, which in turn reflects broader policy priorities. The nature of institutional development that the CEE are now embarked on is subtler and more complex than the more basic institutions of governance and property rights that they successfully established. Creating checks and balances in a complex democracy that allows for the expression of many voices while ensuring the public good is not just the next challenge, it is a continuing one.[14]

[14] For an application of these ideas to budgetary institutions, see Fabrizio and Mody (2006, 2008).

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