

IMF Working Paper

The Credit Boom in the EU New Member States: Bad Luck or Bad Policies?

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IMF Working Paper

European Department

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Abstract

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In the past decade, most of the EU New Member States experienced a severe credit-boom bust cycle. This paper argues that the credit boom-bust cycle was to a large extent the result of factors external to the region (“bad luck”). Rapid credit growth followed from a high liquidity in global markets and the particular attractiveness of “new Europe” for capital flows, while the end of the credit cycle was brought about by a global crisis. However, the fact that some countries managed to avoid most of the excesses, including asset price bubbles and foreign exchange lending, suggests that policies and policy failures (“bad policies”)—in particular overly expansionary macroeconomic settings and excessively optimistic views on prudential risks—also have played a critical role.

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Contents

Page

I.	Introduction.....	4
II.	The Nature and Origins of the Credit Boom of 2003–07/08	5
III.	The End of the Boom and Initial Assessment of its Cost	21
IV.	Policies and Policy Failures During the Boom Years.....	26
	A. Risks Were Underestimated—“Europe is Different”	27
	B. Prudential/Regulatory Policies Had only Limited Effect.....	32
	C. Countries with Fixed Exchange Rates had Few Effective Policy Tools.....	32
	D. Excessive Foreign Exchange Risks Affected Policy Responses	37
	E. Rapid Public Expenditure Growth Exacerbated Demand Pressures	40
V.	Policy Lessons: Could the Credit Boom Have Been Prevented?	42

Tables

1.	Cumulative Capital Inflows, 2003–07	5
2.	Net Private Capital Flows	6
3.	External Positions of Western Banks vis-à-vis EU -9	21
4.	Change in GDP Components, 2009	22
5.	Public Debt, 2003–07.....	28
6.	Projections of Average Annual Real GDP Growth, October 2007	29
7.	General Government Balance on Accrual Basis.....	40

Figures

1.	Cumulative Net Capital Inflows, 2003–07	8
2.	The Surge in Capital Inflows	9
3.	Capital Inflows and Reforms	10
4.	The Surge in Capital Inflows--by Type of Capital	11
5.	Capital Inflows and Private Sector Credit	12
6.	Credit Growth	13
7.	Private Sector Credit Growth.....	14
8.	Credit to GDP Ratio, 2008.....	15
9.	Credit, Domestic Demand and GDP	16
10.	The Credit Boom Led to Rising Imbalances.....	17
11.	The Overheating of the Economy	18
12.	The Credit Boom.....	19
13.	External Debt and International Investment Position	20
14.	Decline in Net Capital Inflows, 2008–09	23
15.	The Domestic Demand Bust	24
16.	The Credit Boom-Bust and GDP Growth.....	25
17.	5-Year CDS Spreads, 2004–10	30
18.	External Position of Western Banks vis-à-vis Selected Regions.....	31

19. Exchange Rate Policy	35
20. Exchange Rate Policy and Competitiveness.....	36
21. The Boom in Foreign Currency Loans	38
22. The Role of Western Banks in Funding Foreign Currency Loans.....	39
23. Fiscal Policy.....	41
References.....	44

I. INTRODUCTION

Since the onset of transition in the early 1990s, central, eastern and south-eastern Europe (CESE) has seen impressive progress. In a span of less than twenty years, the region went from central planning to establishing successful market economies. While the post transition economic history was not without challenges, set-backs were in most cases well managed, and the regions' new structures proved sound, yet sufficiently flexible to adjust to global and regional shocks.² From 1995-2008 real GDP in the region grew by 125 percent (measured in PPP-terms).

More recently, an unprecedented credit boom-bust cycle led to rapid growth and deep recessions, though country experiences are not uniform. In the context of a global increase in capital flows, CESE became a "destination of choice". The reasons are manifold, including both a general optimism about the region and its likely successful convergence to Western European income levels. Similarly, with new entrants in banking and financial markets, strategic considerations of gaining market shares were also at play. The level and economic effect of capital inflows differed: a smaller number of countries saw predominantly foreign direct investment, while capital flows to others took the form of lending to banks and companies. Since the end of the credit boom, many of the countries in the region have suffered severe recessions (including some of the most severe contractions in GDP globally). Some of the countries that did not experience a severe credit boom have seen much milder contractions.

What has caused the credit boom and its aftermath in so many CESE countries, and why have some countries managed to avoid most of the excesses, including asset price bubbles and foreign exchange lending? To answer this question, this paper takes an in-depth look at the developments and policies in the "EU-9"—nine EU New Member States (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovak Republic) that joined the EU between 2004 and 2007.³ These countries are all EU members⁴ with similar set-ups in key institutions and policies, including independent central banks, and open capital accounts; they also are subject to the same convergence framework guiding macroeconomic policies, and, in the context of the Lisbon agenda, striving for key structural reforms. Despite these similarities, the countries in this group differ greatly in the extent to which they have been affected by the credit boom-bust cycle, with the Baltic countries experiencing the most pronounced cycle, and the Czech and Slovak Republics having been least affected.

² Major common shocks for the region include the 1998 Russian debt crisis.

³ We have excluded Slovenia, as this country already introduced the euro in 2007—during the boom years.

⁴ The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, and Slovakia joined in 2004, Bulgaria and Romania in 2007.

II. THE NATURE AND ORIGINS OF THE CREDIT BOOM OF 2003–07/08

During the global boom of 2003-07, the EU-9 attracted large capital inflows.⁵

Cumulative capital inflows during 2003-07 ranged between 33 percent of 2003 GDP in the Czech Republic and 192 percent of 2003 GDP in Bulgaria, and were also particularly large also in the Baltics and Romania (Table 1 and Figure 1). The size of the capital inflows exceeded those to pre-crisis Asia; the unweighted average in the EU-9 (107 percent of GDP) was almost 3 times as large as in pre-crisis Indonesia, Philippines and Thailand (38 percent of 1992 GDP).

Table 1. Cumulative Net Capital Inflows, 2003–7

	In percent of 2003 GDP				In percent of total		
	Other Investment	FDI	Portfolio	Total	Other Investment	FDI	Portfolio
Bulgaria	63	143	-14	192	33	75	-7
Latvia	129	43	-7	166	78	26	-4
Romania	68	60	2	130	53	46	1
Estonia	89	54	-32	111	80	49	-28
Lithuania	64	23	-1	85	75	27	-2
Slovak Republic	24	43	1	68	35	64	1
Hungary	24	18	24	66	36	27	36
Poland	9	24	7	40	22	59	18
Czech Republic	7	33	-7	33	20	101	-21
Bulgaria, Baltics, Romania	83	65	-10	137	64	45	-8
Czech, Hungary, Poland, Slovak	16	30	6	52	28	63	9

Source: IMF, WEO Database, April 2010.

Capital inflows were already high in 2003, but increased further between 2003 and 2007, and large differences among countries started to emerge (Figure 2). In 2003, the size of the capital inflows was still quite uniform. Between 2003 and 2007 there was a further increase in the Baltics, Bulgaria, Romania and Poland, while capital inflows into Hungary, the Czech and Slovak Republics were stable as percent of GDP or declined. By 2007, annual capital inflows in the Baltics, Bulgaria and Romania exceeded 15 percent of GDP.

The large capital inflows were partly the result of the low income levels in the EU-9 and the implementation of reforms. With low wages and low capital-labor ratios returns on investment in the EU-9 were very high (Lipschitz et al, 2002). Capital inflows were further

⁵ It should be recognized in the remainder of the paper that there have been large differences between the various EU-9 countries. Some countries received very large capital inflows, had very strong credit booms and very large imbalances while in other countries capital inflows, credit booms and imbalances were much smaller. Thus, the paper does not mean to suggest that the phenomena described here were the same in all countries: as will become clear in the rest of the paper, there has been a tremendous difference between, for instance, the Baltic countries on the one hand, and the Czech and Slovak Republics on the other.

stimulated by post-transition reforms. Economies were deregulated, and integrated with Western Europe, and institutional frameworks were upgraded to prepare for EU accession. Countries that reformed most during the 1995-07 period, received the largest capital inflows (Figure 3).

Capital inflows were further boosted by the very favorable global environment, with abundant liquidity and low risk aversion. With low global volatility and low interest rates in advanced countries, a search for yield led to a surge in capital flows to all emerging market countries. The EU-9 benefited particularly from this surge, and by 2007 net private capital flows to the nine New Member States had increased to 11.6 percent of GDP—well above the average of all emerging market countries (3.8 percent of GDP).

Table 2. Net Private Capital Flows
(Weighted average, percent of GDP)

	2003	2004	2005	2006	2007	2008	2009
EU-9	6.4	7.1	8.7	8.1	11.6	8.4	1.5
All EMCs	2.0	2.1	2.1	1.6	3.8	0.4	-0.2

Source: IMF, WEO Database, April 2010.

In terms of type of capital inflows into the region, bank loans were the most important category, followed by FDI⁶ (Figure 4). Statistically included in “other investment flows” lending by banks was not only the most important category, but also the category with the largest differences across countries—most of the variation in capital inflows was due to other investment inflows rather than FDI (with the notable exception of Bulgaria). Portfolio inflows were very small or even negative, with the notable exception of Hungary.⁷

The expansion of Western European parent banks to the East and the associated financing of their local subsidiaries fueled a credit boom in a large number of countries.⁸ Western European banks expanded very aggressively in the EU-9, aiming to gain

⁶ Other investment is a residual category that includes all financial transactions not considered direct investment or portfolio investment. Its main components are loans, deposits, and trade credits.

⁷ Trade credit was relatively unimportant as well.

⁸ In most countries, the credit boom started earlier than 2003. Before 2002/03, however, capital transfers from Western banks to the EU-9 were rather limited; thereafter they became very important.

market share in a growing region.⁹ They funded a large part of the credit growth of their local subsidiaries by capital transfers. The magnitude of the credit boom differed among individual countries, and was closely linked to the size of the influx from capital from Western banks (Figure 5). Countries that experienced a larger influx of capital from Western Banks (for example, Baltics, Bulgaria) had a larger increase in the private sector credit to GDP ratio than countries where the influx was small (Slovak Republic).¹⁰ Credit increased to both households and firms. (Figure 6). Rapid credit growth was fueled by catch-up, as the EU-9 countries that were poorer had faster credit growth. However, catch-up was only part of the story: while in 2002, the poorer countries within the EU-9 had less financial deepening with a lower credit to GDP ratio, by 2008, this link had disappeared (Figure 7). By 2008, there were large differences in the credit to GDP ratios (Figure 8).

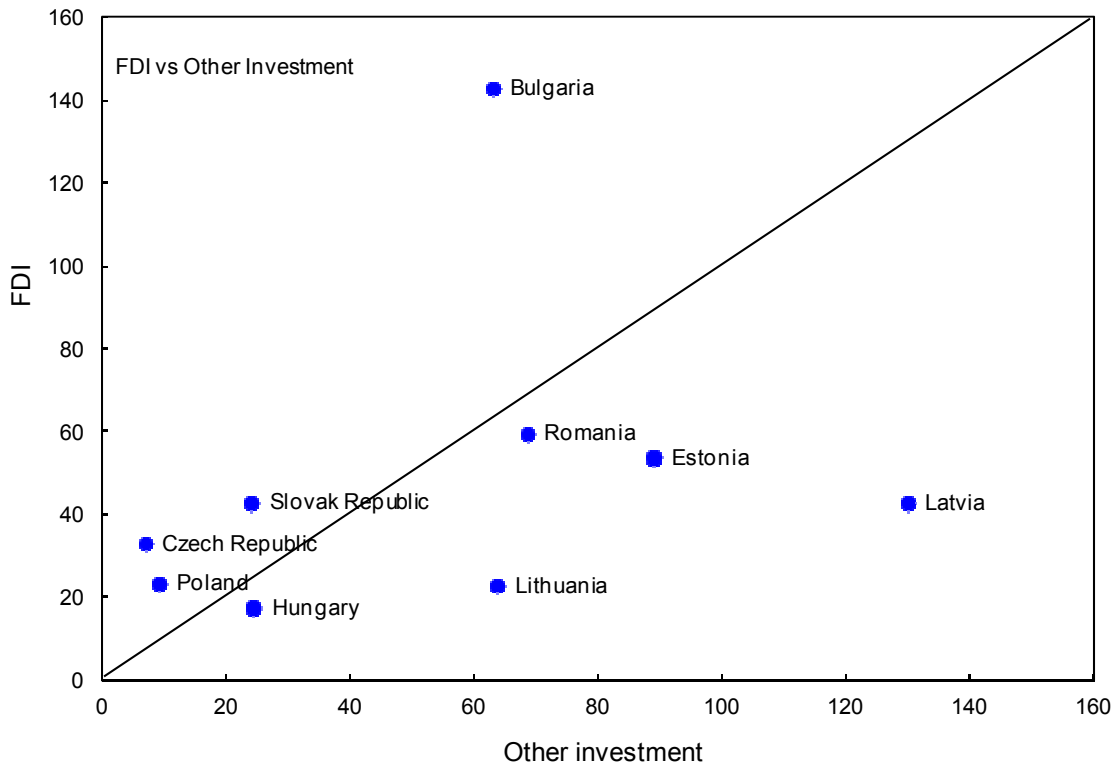
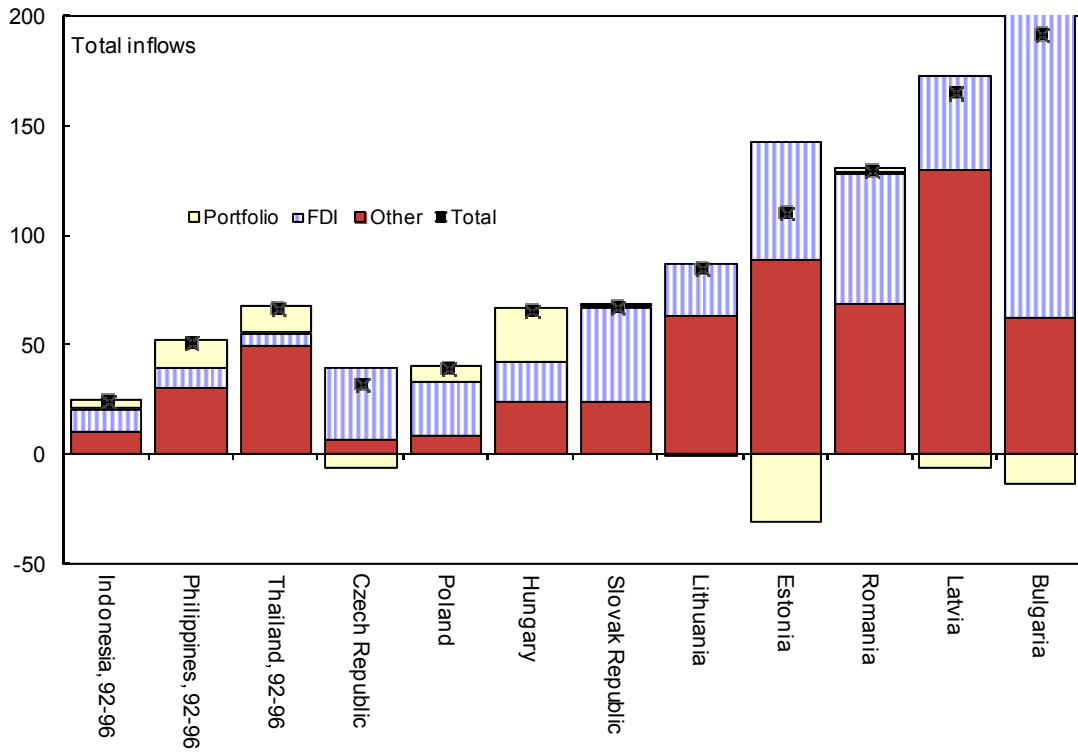
The credit booms fueled a boom in domestic demand and, to a lesser extent, GDP growth. The demand boom differed among countries; countries with the most rapid credit growth had the largest increase in domestic demand (Figure 9). Rapid domestic demand growth was in turn associated with faster GDP growth, although an important part of the increase in domestic demand leaked out through higher trade deficits. Interestingly, countries with faster domestic demand growth had not only faster import growth, but also lower export growth.

The boom ultimately contributed to widening imbalances and rising vulnerabilities in a number of countries. By 2008, the countries that had seen the most rapid increase in the credit to GDP ratio had the highest inflation, the largest current account deficit, and the most pronounced deterioration of competitiveness—as measured by the increase in the ULC-manufacturing based REER (Figure 10). Overheating was not only visible in inflation and wages (Figure 11); housing prices were also increasing rapidly (Figure 12). By 2008, external debt of many countries had reached high levels—measured either in terms of the ratio to GDP or the ratio to exports—and the international investment position had become highly negative (Figure 13).

⁹ Capital flows from Western parent banks to their local subsidiaries are partly included in FDI and partly in other investment: transactions related to permanent debt and equity are recorded as FDI, whereas loans and deposits are generally recorded as other investment. See IMF, *Balance of Payments Textbook*, page 124.

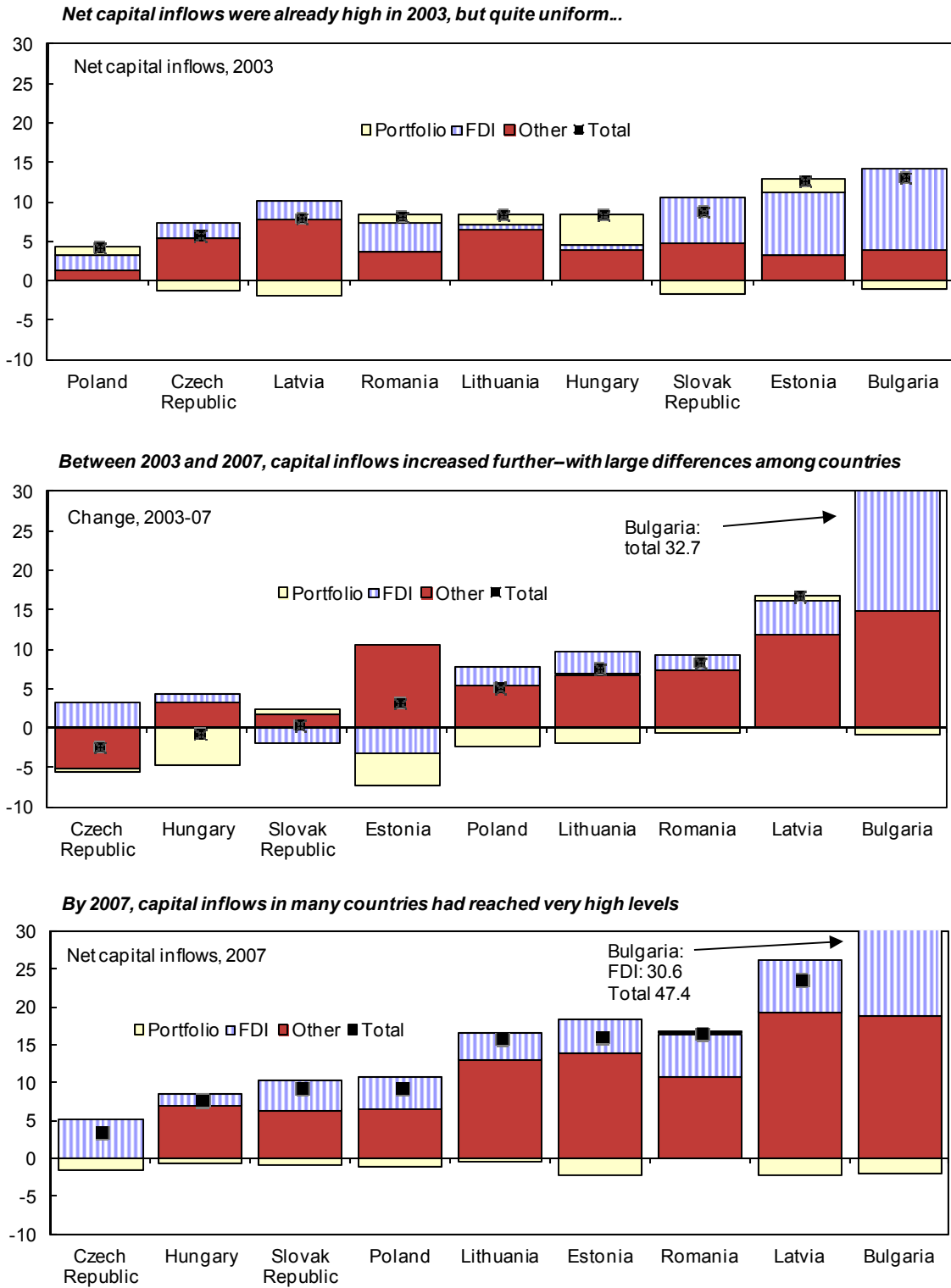
¹⁰ In the Czech Republic, the more than 20 percentage points increase in the credit to GDP ratio was funded by domestic deposits rather than by capital transfers of parents banks.

Figure 1. Cumulative Net Capital Inflows, 2003-07
(Percent of 2003 GDP)



Sources: IMF, WEO Database, April 2010.

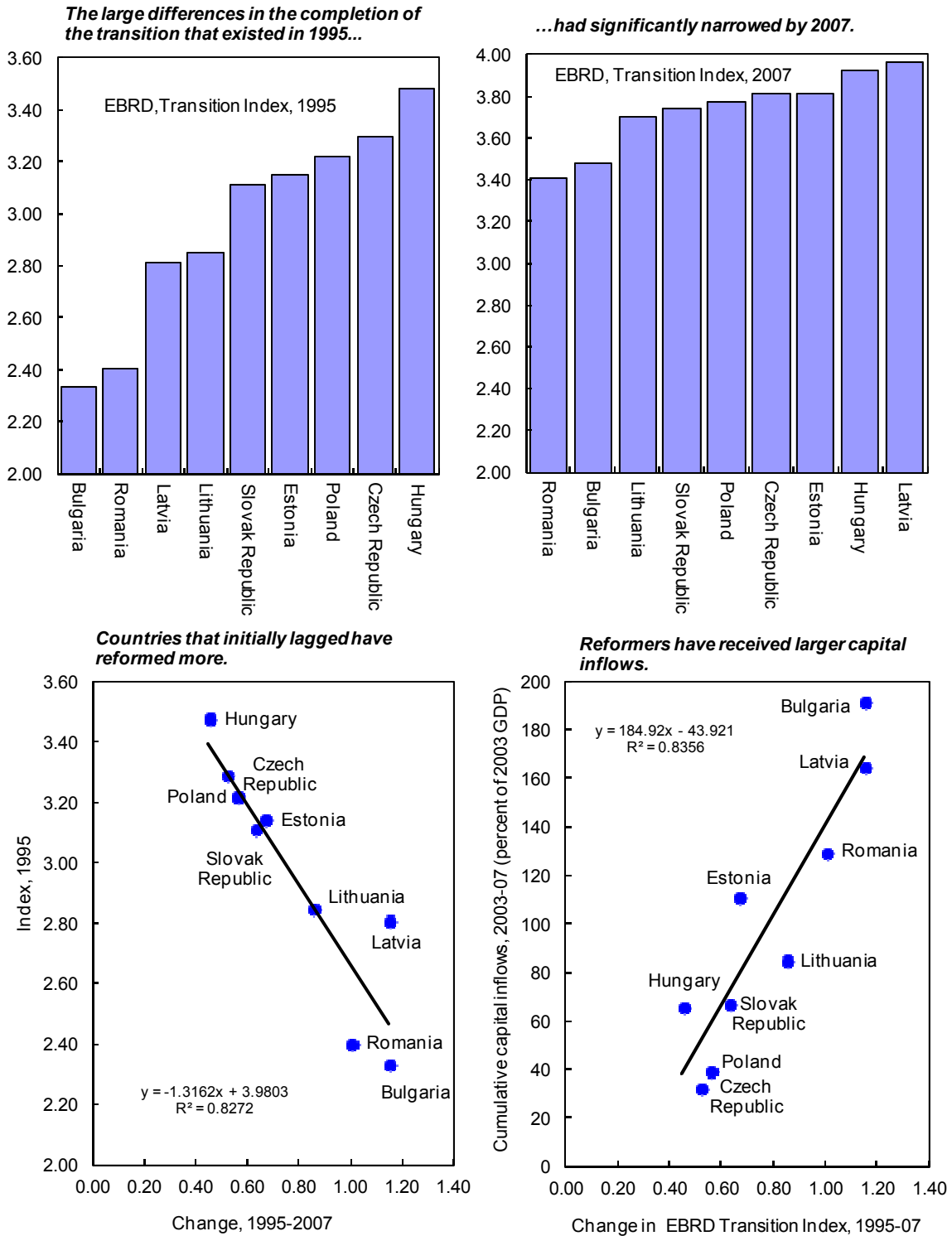
Figure 2. The Surge in Capital Inflows (Percent of GDP)



Source: IMF, WEO Database, April 2010.

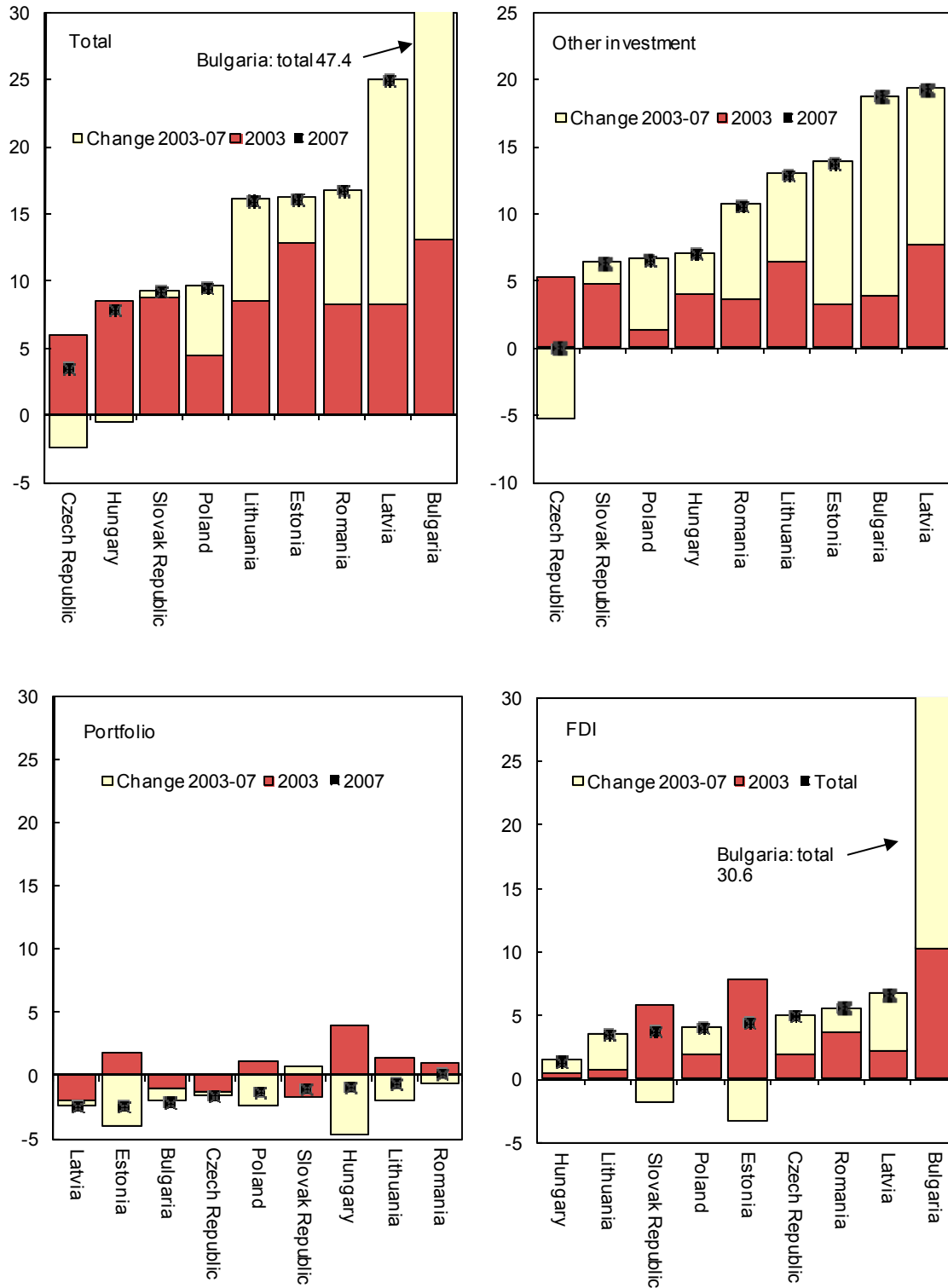
Figure 3. Capital Inflows and Reforms

Capital inflows were further fueled by reforms.



Sources: EBRD, Transition Indicators; IMF, WEO Database, April 2010.
 Note: Transition Index is unweighted average of transition indicators.

Figure 4. The Surge in Capital Inflows--by Type of Capital (Percent of GDP)

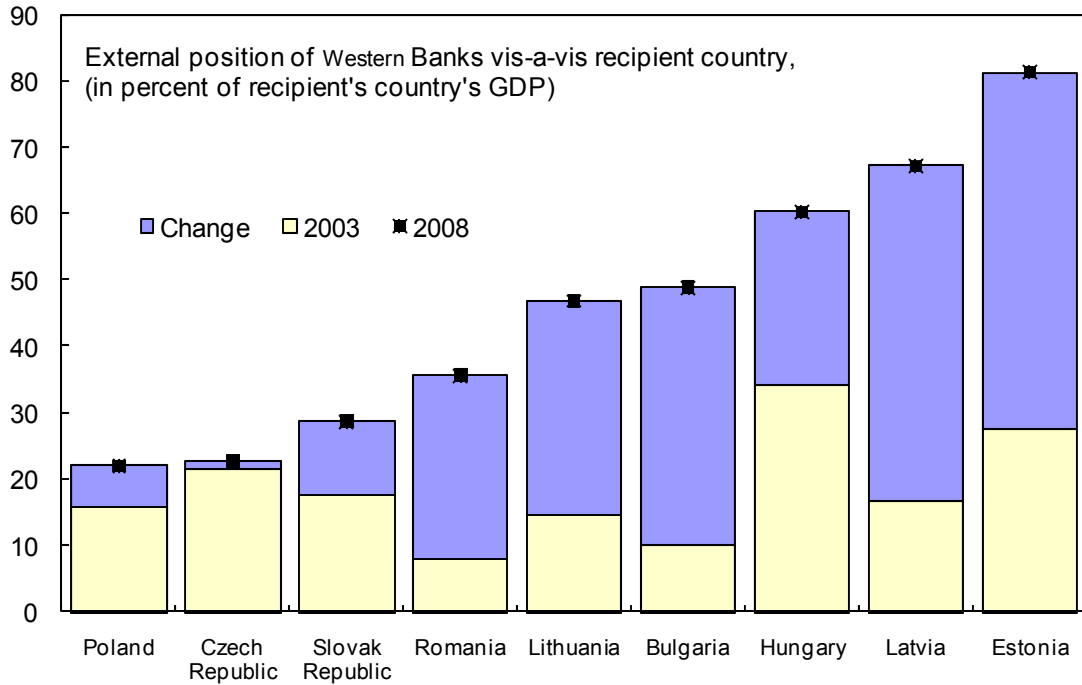


Source: IMF, WEO Database, April 2010.

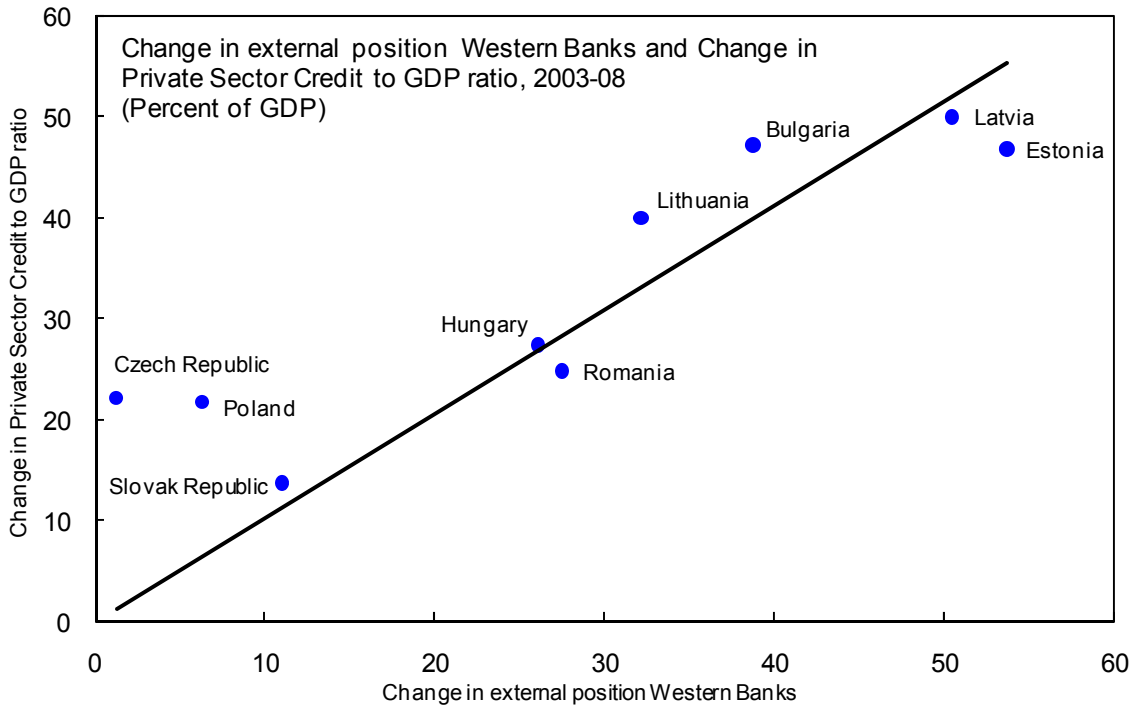
Figure 5. Capital Inflows and Private Sector Credit

Capital Inflows from foreign banks fueled a private sector credit boom.

There was a large increase in the external position of Western Banks vis-a-vis the region...



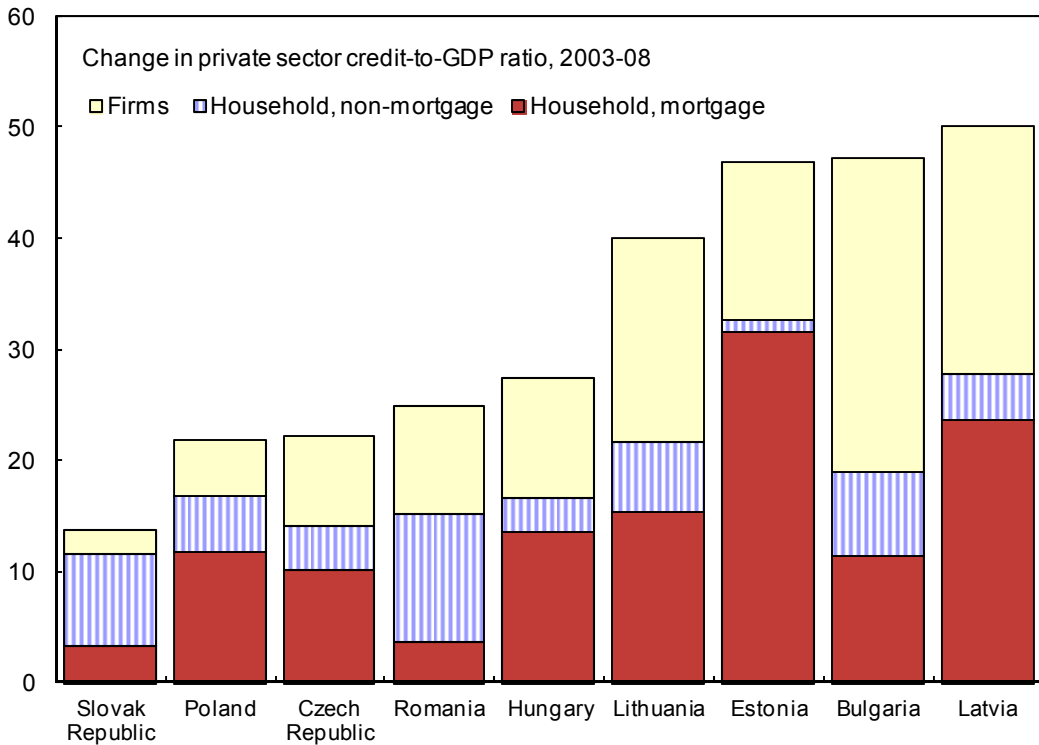
...which fueled a private sector credit boom.



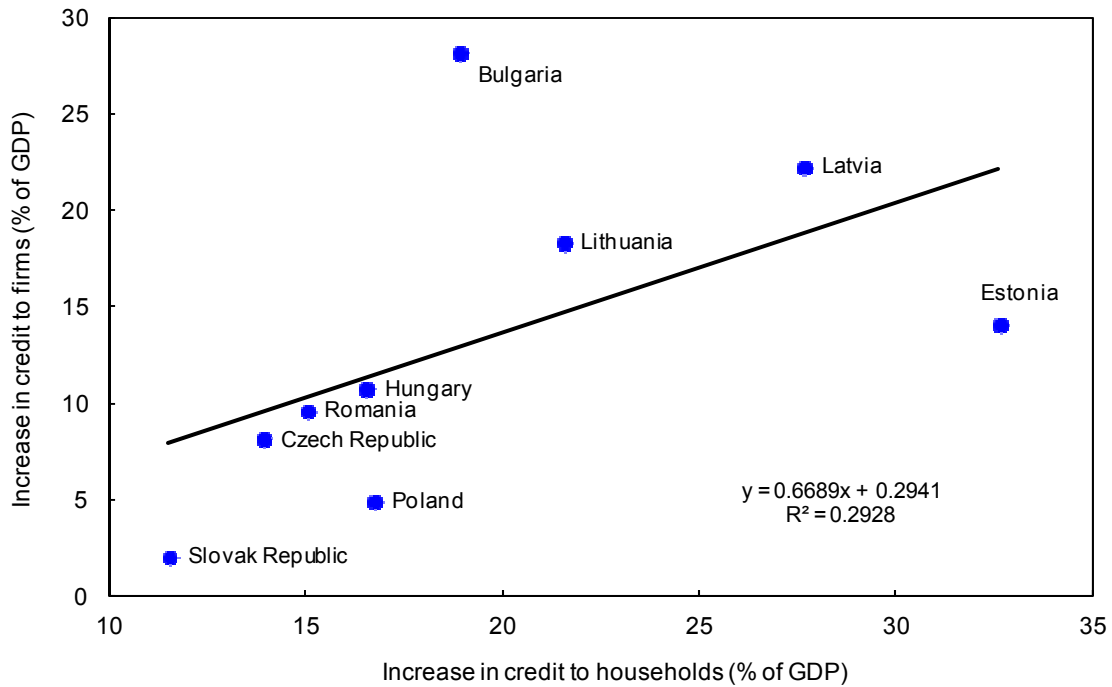
Sources: BIS, Locational Banking Statistics; IMF, IFS.

Figure 6. Credit Growth

Credit growth was driven by both households and corporates.



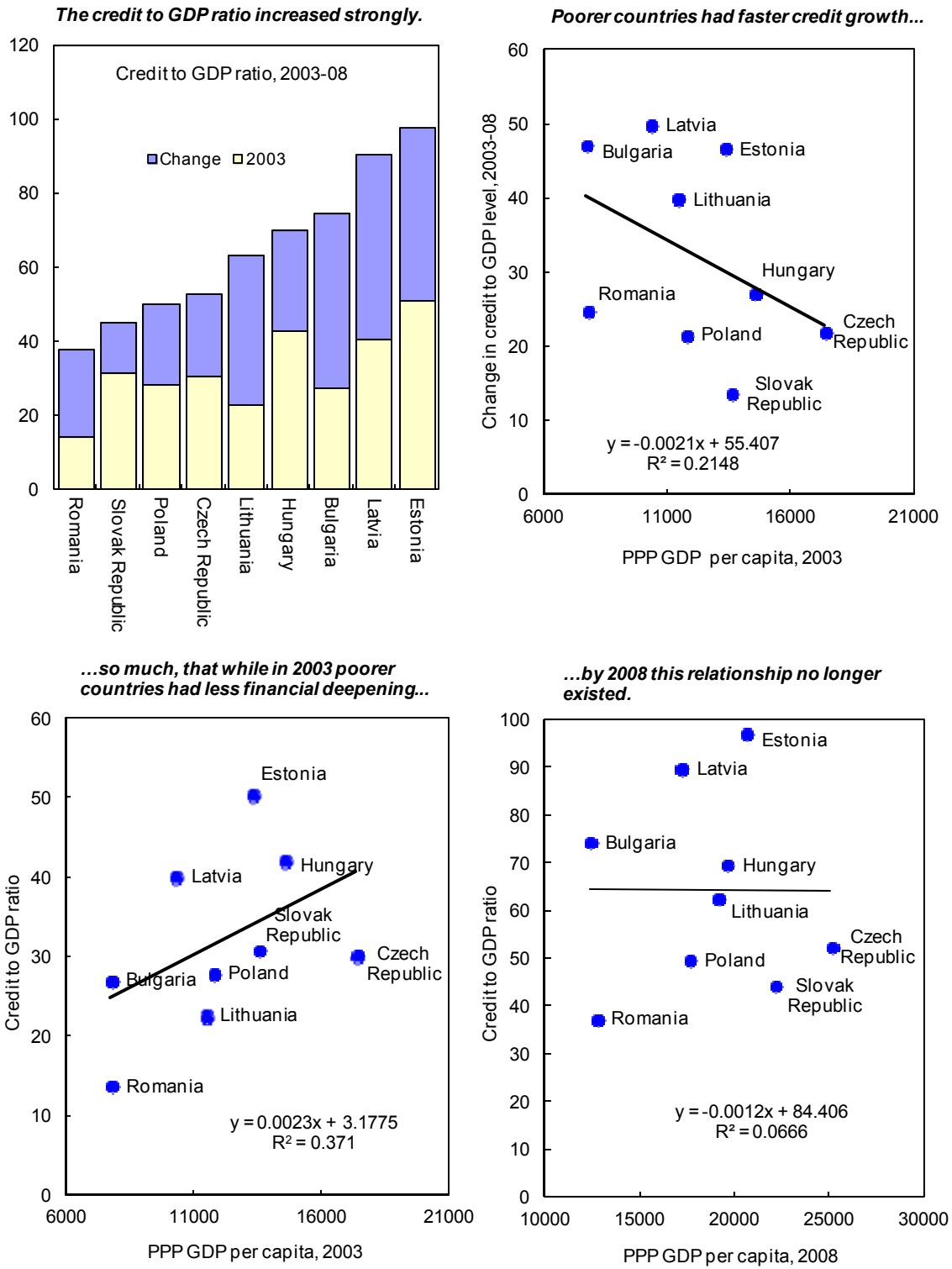
There was a close link between household and corporate credit increase.



Source: EBRD, <http://www.ebrd.com/country/sector/econo/stats/sei.xls>.

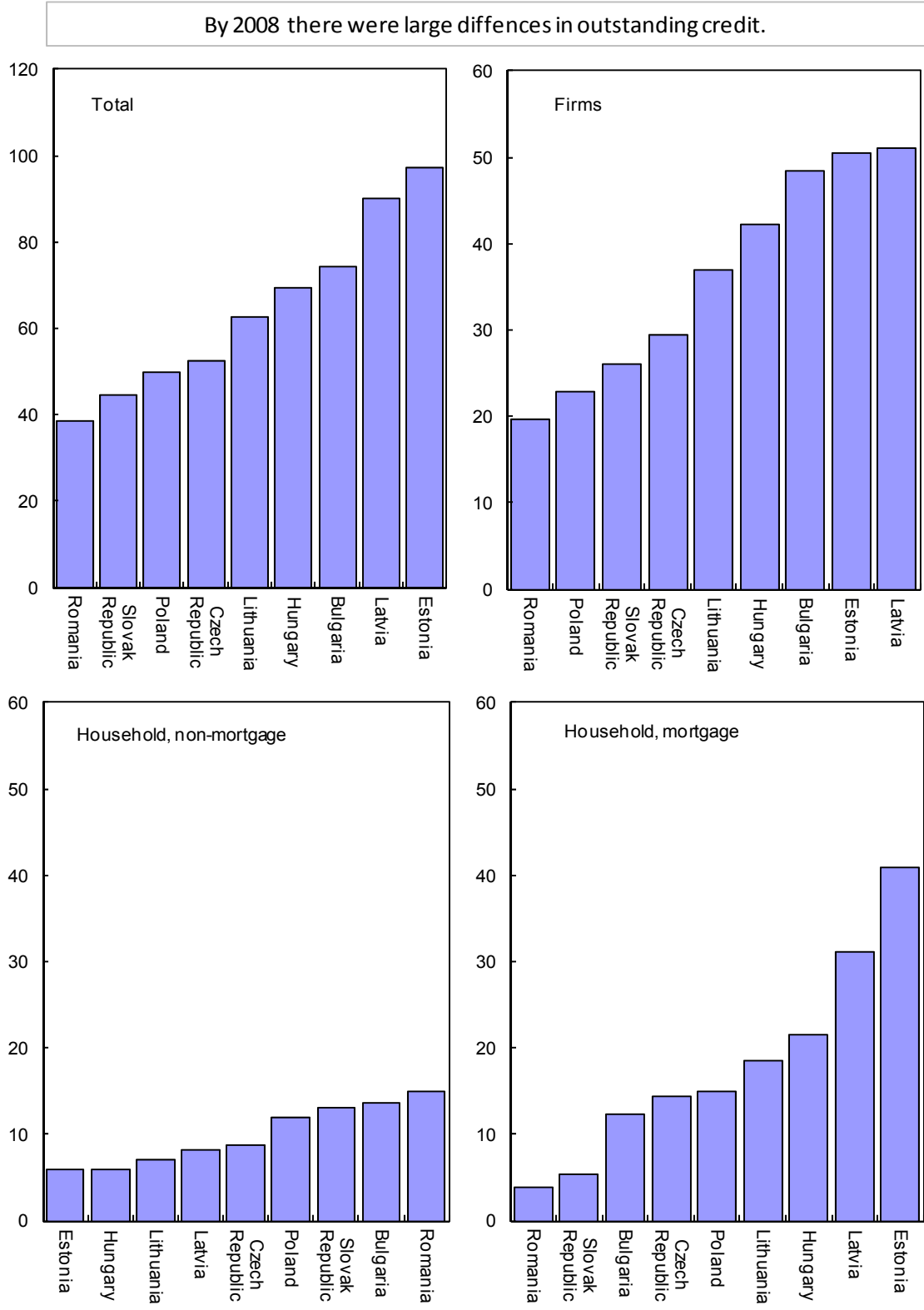
Figure 7. Private Sector Credit Growth

Private sector credit growth was partly explained by fundamentals, but went beyond that.



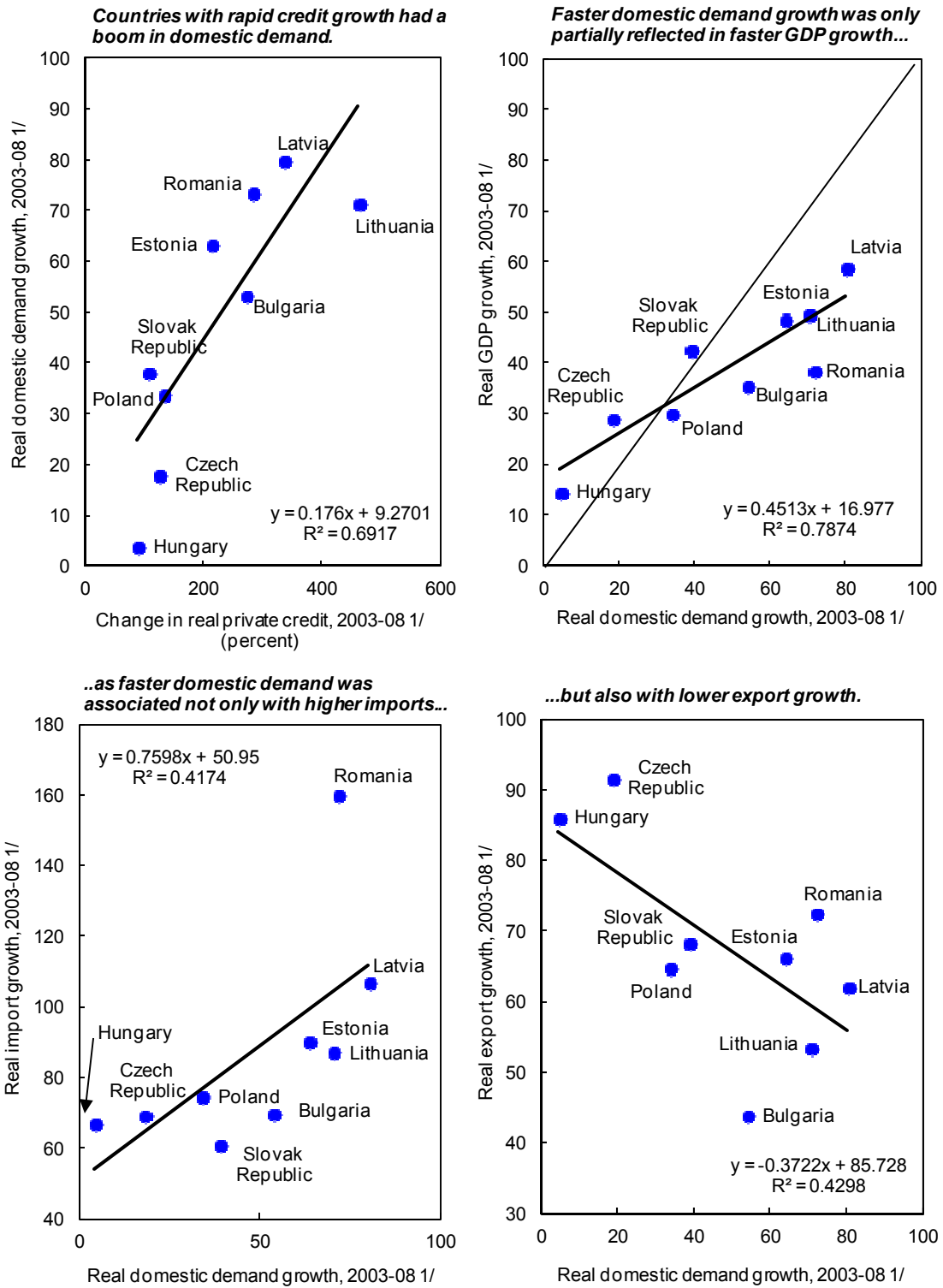
Sources: IMF, WEO Database April 2010, and IFS.

Figure 8. Credit to GDP Ratio, 2008
(In percent)



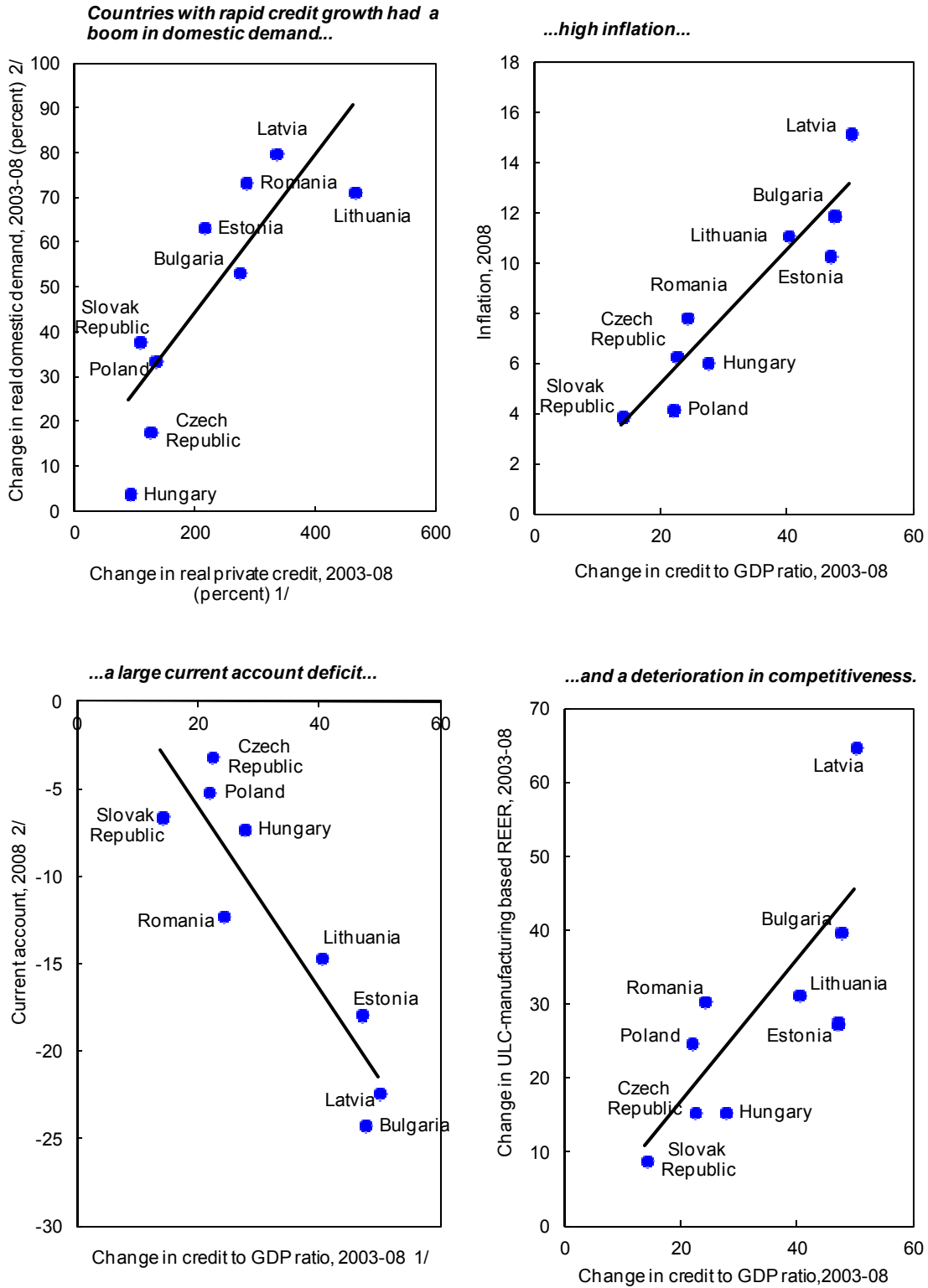
Source: EBRD, <http://www.ebrd.com/country/sector/econo/stats/sei.xls>.

Figure 9. Credit, Domestic Demand and GDP
(In percent)



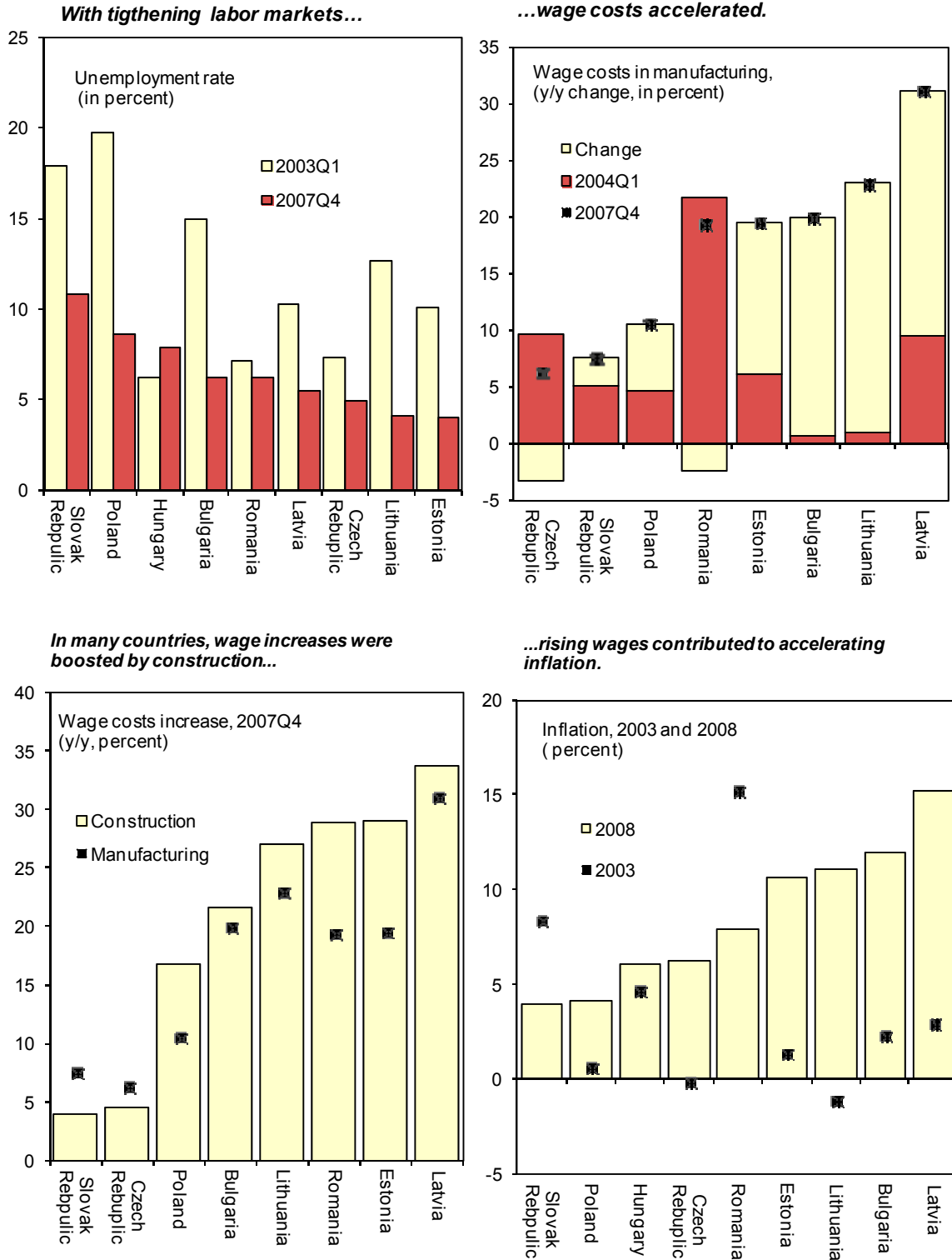
Source: IMF, WEO Database April 2010.
1/ For Baltics, 2002-07.

Figure 10. The Credit Boom Led to Rising Imbalances



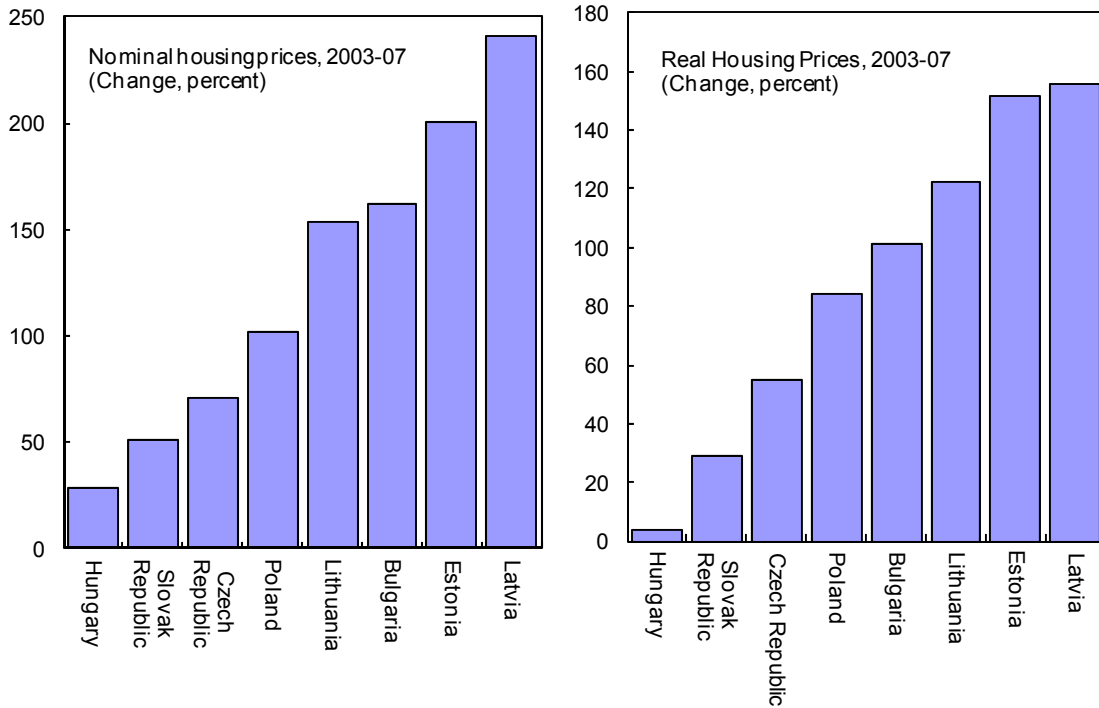
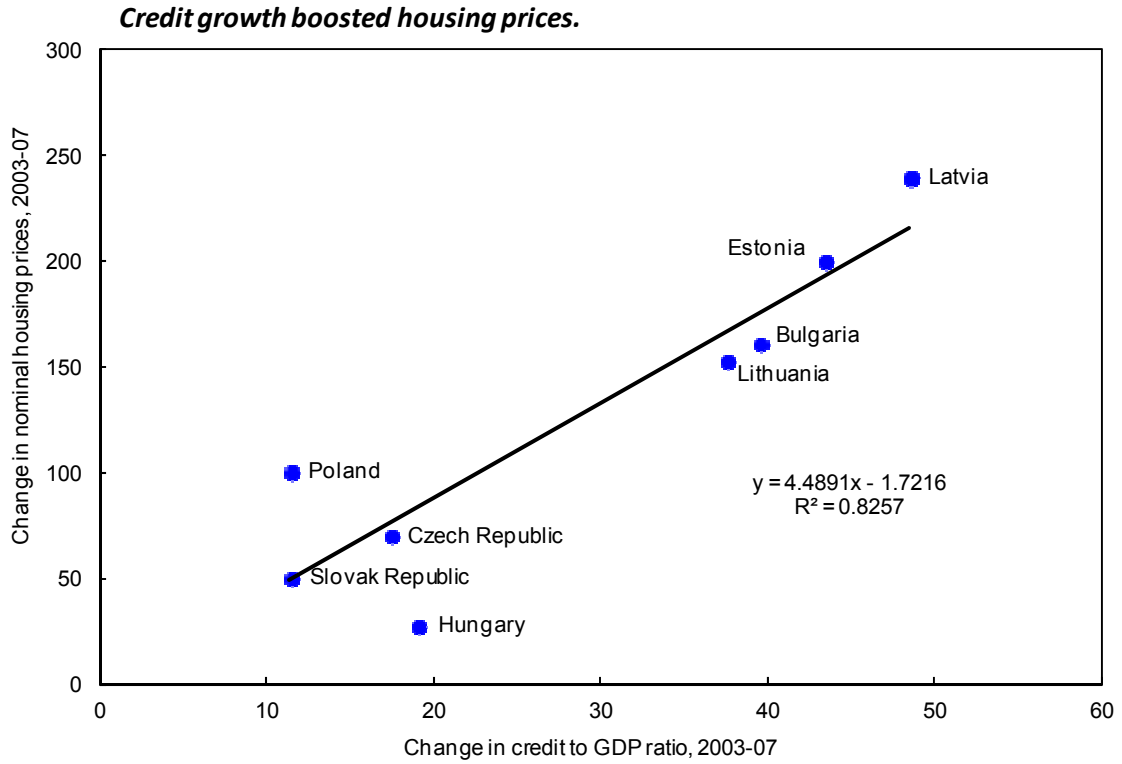
Source: IMF, WEO Database April 2010; and IFS.
 1/ For Baltics, 2002-07.
 2/ For Baltics, 2007.

Figure 11. The Overheating of the Economy



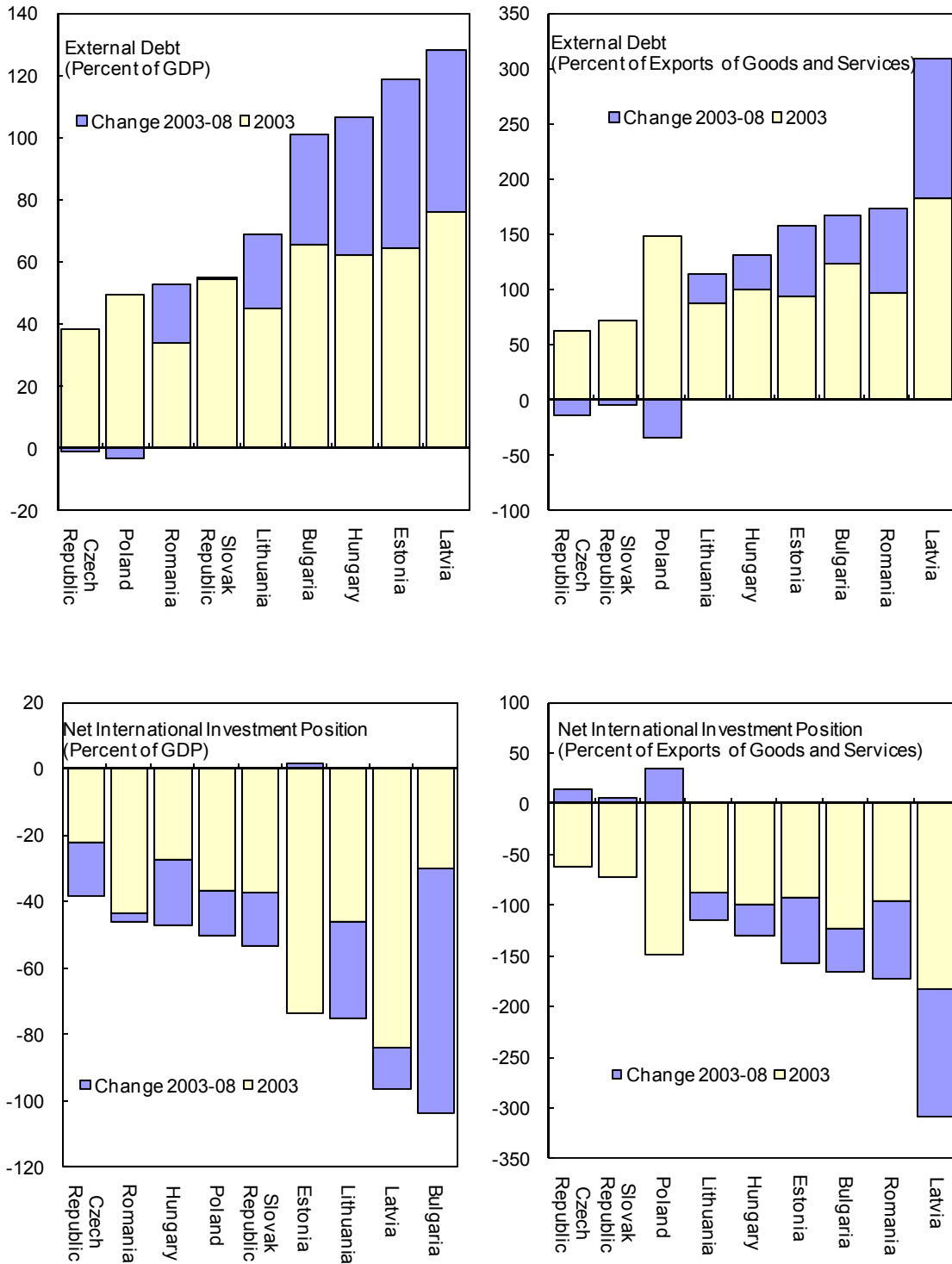
Source: Eurostat, Haver.
 Note: Eurostat does not have data on wages in Hungary.

Figure 12. The Credit Boom



Source: IMF, WEO Database April 2010.

Figure 13. External Debt and International Investment Position



Sources: IMF, WEO Database April 2010; Balance of Payments Statistics.

III. THE END OF THE BOOM AND INITIAL ASSESSMENT OF ITS COST

In the fall of 2008, the large capital flows from advanced countries' banks to the EU-9 (and Emerging Europe more broadly) declined suddenly.¹¹ In the global financial turmoil that followed the demise of Lehman Brothers, global risk aversion increased sharply, stock markets fell

precipitously, and interbank markets dried up. Advanced countries' banks, which were confronted with liquidity and capital shortages, came under severe liquidity pressure and saw themselves forced to stop new lending or even deleverage. In a change

of strategy, they advised their subsidiaries that new credit would henceforth need to be financed from an increase in local deposits rather than from transfers from their parents.¹² Other capital inflows to the region declined as well, although not as sharply. In 2009, capital inflows in most countries were well below the levels in 2008 (Figure 14).

Regulatory response to the banks' problems in the home markets in Western Europe risked aggravating the reversal of credit flows. Starting in the fall of 2008, parent banks faced mounting liquidity and solvency problems in their domestic markets, and most of the banks needed to avail themselves of some form of state aid in their home countries. Initially, in a number of cases, home regulators pressed for deleveraging from investments in Eastern Europe, while rules for state support also were unclear whether or not government support funds from home countries could be used to assist subsidiaries. Following intense international debate—including in the context of the “Vienna Initiative”—home countries recognized the potential dangers for both home and host countries of forcing banks to deleverage excessively fast.¹³ Tacitly or openly, state aid rules were henceforth applied in a way that allowed maintenance of exposures. In the case of IMF/EU programs formalized

Table 3. External Positions of Western Banks vis-à-vis EU-9
(Percent of recipient country 2008 GDP, adjusted for exchange rate changes)

	Levels			Flows		Change in flows
	Sep. 07	Sep. 08	Sep. 09	Sep 07-Sep 08	Sep 08-Sep 09	
Bulgaria	27.0	49.7	48.2	22.7	-1.5	-24.2
Latvia	55.9	69.8	62.4	13.9	-7.5	-21.4
Hungary	49.0	63.2	60.6	14.2	-2.5	-16.7
Estonia	74.8	83.0	76.2	8.1	-6.7	-14.9
Lithuania	34.5	47.8	46.3	13.3	-1.5	-14.8
Romania	25.4	35.6	31.4	10.1	-4.2	-14.3
Czech Republic	19.8	25.1	21.7	5.2	-3.3	-8.6
Poland	18.1	24.2	23.1	6.2	-1.1	-7.3

Source: BIS, Locational Statistics; and IMF, WEO Database April 2010.

¹¹ In the Czech Republic, where credit growth had not been funded by capital flows from advanced countries' banks, private sector credit growth slowed as well, from 22 percent y/y in September 2008 to 2.7 percent in September 2009.

¹² Parent banks continued to support their subsidiaries, and provided liquidity support when residential deposits declined.

¹³ Discussions among home and host authorities, regulators and banks took place in the context of the “Vienna Initiative”. See Andersen (2009) for details.

agreements with parent banks helped ensure burden sharing and prevent rapid capital outflows. In the end, Western banks played a stabilizing role, while the most serious financial sector problems emerged in countries with domestic banks that funded themselves on the wholesale market—Hungary and Latvia.¹⁴

The decline in capital inflows led to a sharp drop in domestic demand. In many countries, new credit came to a virtual halt. The slowdown in credit contributed to a sharp contraction in domestic demand and asset prices.¹⁵ The domestic demand collapse was particularly pronounced in the Baltics, driven by a sharp decline in both consumption and investment. In the Czech Republic, Poland and the Slovak Republic, consumption remained stable, or even marginally increased, thereby cushioning the overall domestic demand fall.

Table 4. Change in GDP Components, 2009
(Percent)

	GDP	Exports	Domestic Demand
Latvia	-18.0	-13.9	-27.8
Lithuania	-15.0	-15.5	-24.8
Estonia	-14.1	-11.2	-23.9
Romania	-7.1	-5.2	-14.0
Hungary	-6.3	-9.5	-13.5
Bulgaria	-5.0	-9.8	-15.0
Slovak Republic	-4.7	-16.5	-6.2
Czech Republic	-4.3	-15.8	-5.8
Poland	1.7	-11.7	-0.9

Source: IMF, WEO Database April 2010.

The decline in domestic demand was most pronounced in the countries that had built up the largest imbalances during the boom years. Countries with the largest drop in domestic demand have seen the largest drop in GDP (Figure 15). Domestic demand contracted the most in the countries that previously had the biggest increase in domestic demand, the largest current account deficits, and the largest increases in the credit to GDP ratios.

The economic downturn was exacerbated by the decline in real exports that resulted from the recession in the EU-9's trading partners. The decline in exports does, however, not seem to explain the differences in the depth of the recession. For example, the Czech Republic and Slovakia, with more moderate recessions experienced a similar decline in exports as countries with much more severe downturns (Table 3).

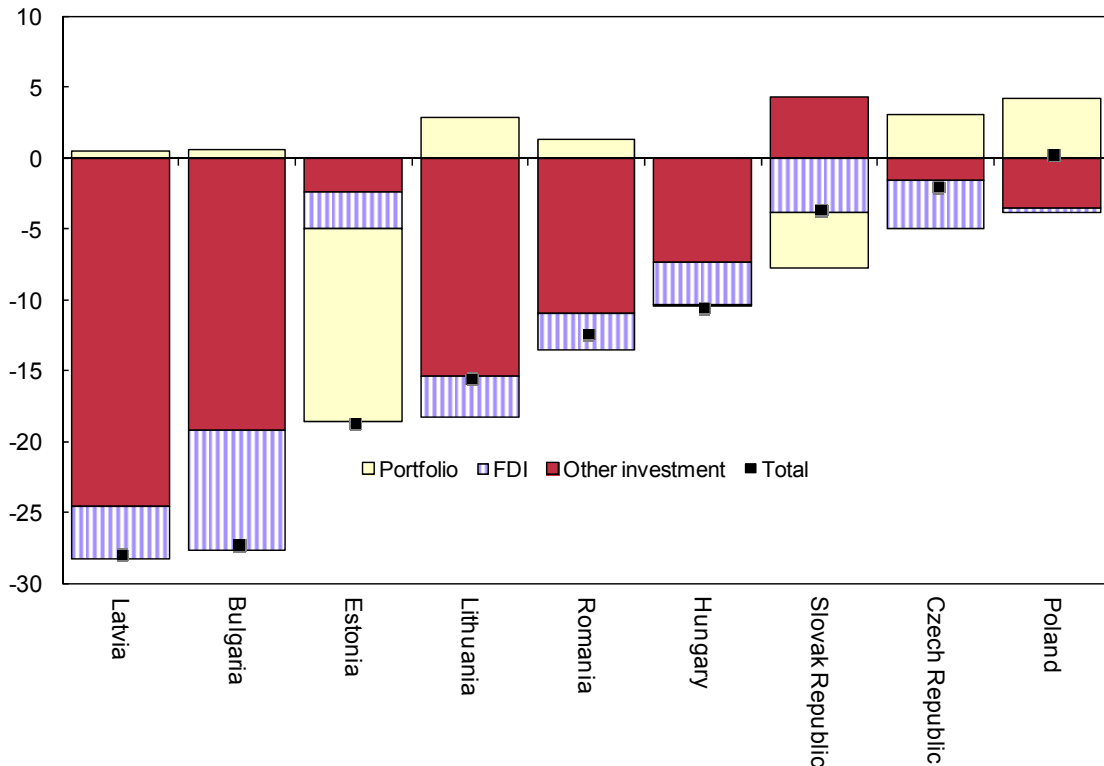
The decline in GDP in some of the New Member States has been very steep. GDP in Lithuania and Latvia has contracted by 15 and 18 percent in 2009 respectively. By comparison, in 1998, during the Asian crisis, GDP declined by 6.9 percent in Korea, 10.5 percent in Thailand, and 13.1 percent in Indonesia.

¹⁴ The underlying quality of the domestic institutions differed significantly. While in the case of Latvia the domestic bank in question faced liquidity and solvency problems, the difficulties in the case of Hungary were related solely to the temporary inability of the bank to access liquidity in international markets.

¹⁵ In the Baltics the slowdown of credit growth started already one year earlier, as Swedish parent banks in 2007 (belatedly) recognized the vulnerabilities that had emerged. It is an open question whether their attempt at a controlled deceleration of credit growth (from 50–60% p.a. to 20–30% p.a.) could have succeeded.

It seems increasingly likely that there are long-term costs for those with the most pronounced boom. Countries with the highest credit growth not only saw the largest output volatility; but also saw lower *average* growth. While the credit booms generated strong growth during the boom-phase, the subsequent bust has been so deep that seen over the 2003–10 period countries with the strongest credit boom have seen slower average GDP growth than countries that did not experience this boom (Figure 16). Given that much of the capital inflows were in the form of loans, these countries also saw the steepest rise in external debt and the largest fiscal deficits. These long-term costs of the credit boom have not been taken into account by the many studies that end their sample before 2009. The conclusion that the rapid expansion of the financial sector was beneficial for growth may thus have been too sanguine.¹⁶

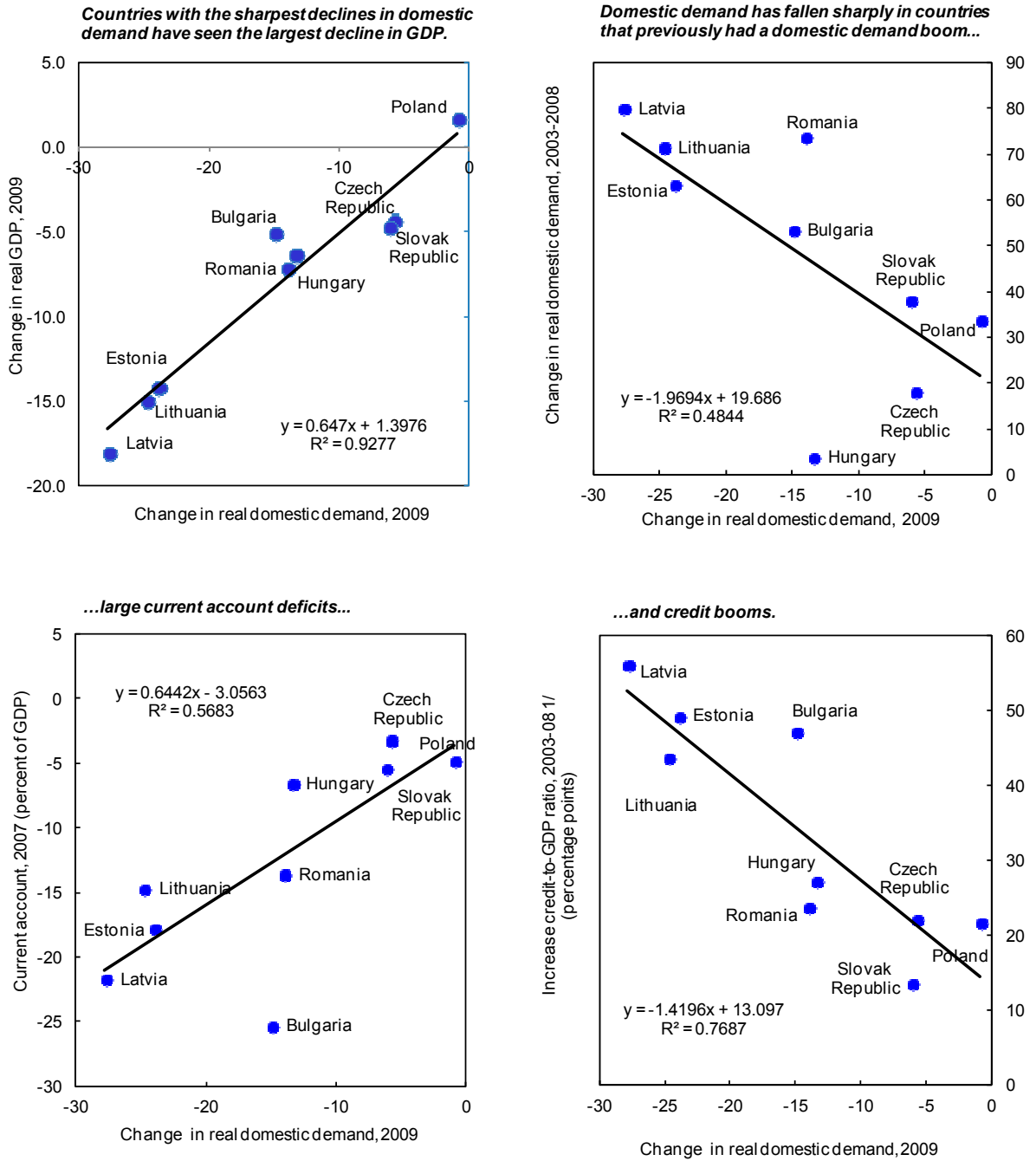
Figure 14. Decline in Net Capital Inflows, 2008–09
(Percent of GDP)



Source: IMF, WEO Database April 2010.
1/ Capital inflows in 2009 minus capital inflows in 2008.

¹⁶ The EBRD's 2009 Transition Report, for example, concludes (based on data for 1994–2008) that “financial integration has significantly benefited the transition region by contributing to high economic growth over at least a decade.”

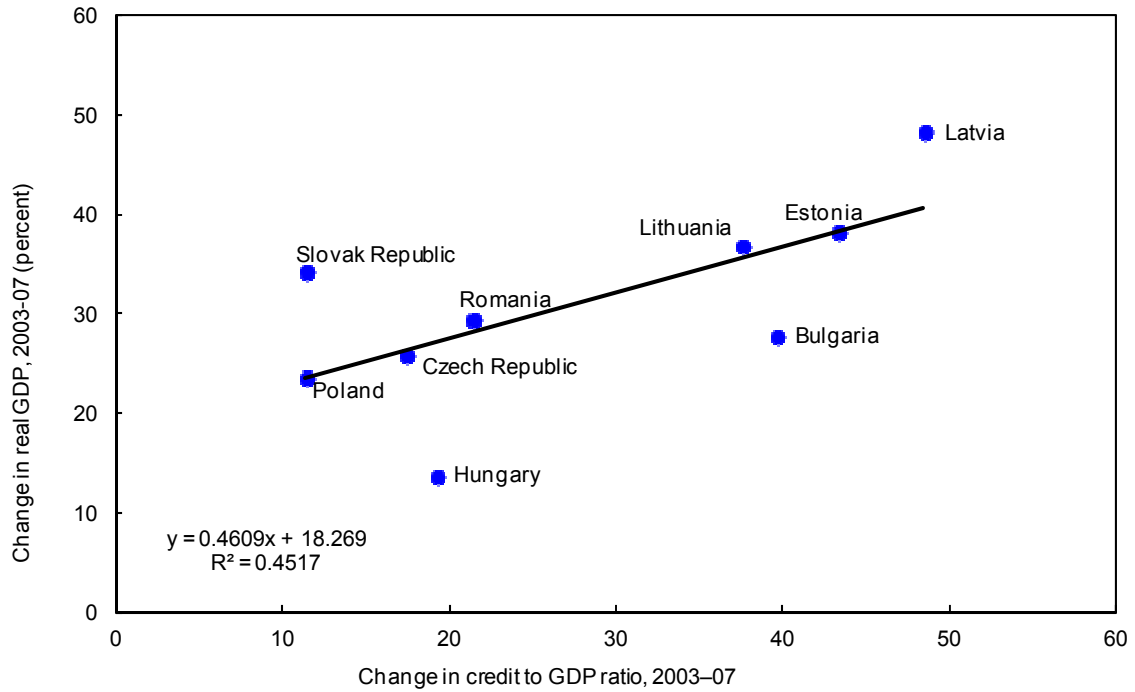
Figure 15. The Domestic Demand Bust
(In percent)



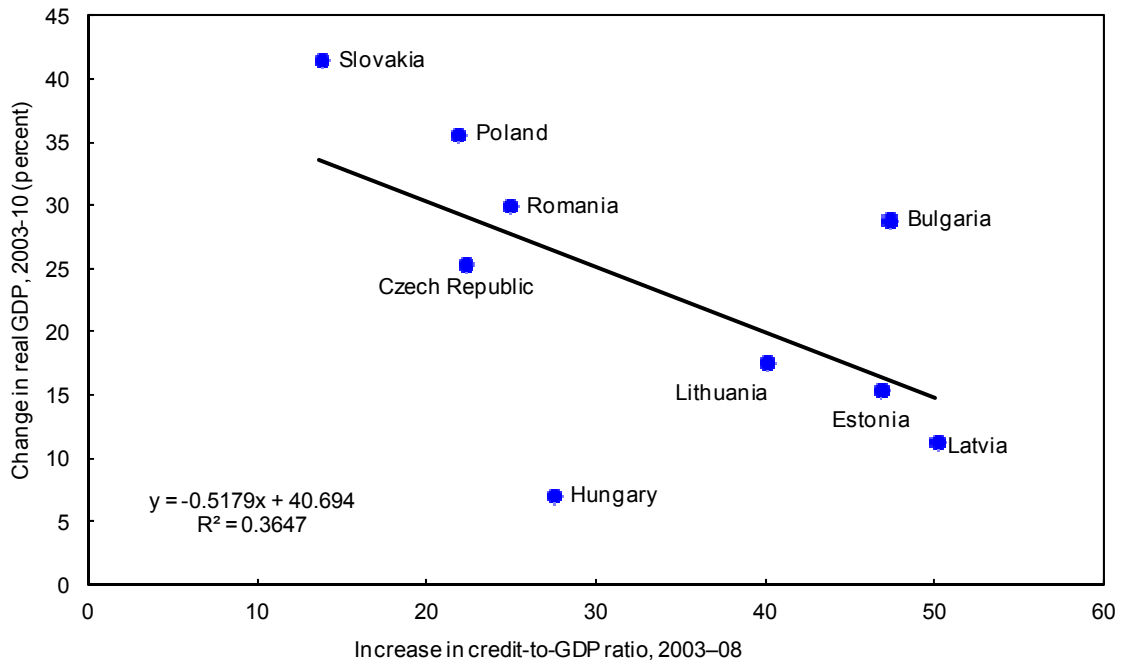
Sources: IMF, WEO Database April 2010; IFS
1/ For Estonia, Latvia and Lithuania: change during 2002-07.

Figure 16. The Credit Boom-Bust and GDP Growth

During 2003–07, rapid credit growth was associated with rapid GDP growth.



Seen over a longer period, countries with a credit boom grew less.



Sources: IMF, WEO Database, April 2010.

IV. POLICIES AND POLICY FAILURES DURING THE BOOM YEARS

To a large extent, the boom-bust cycle in many of the New Member States was the result of global factors.

- **Rapid credit growth followed from a high liquidity in global markets and the particular attractiveness of “new Europe” for capital flows.** During the global boom years, the new EU members were the most attractive destination for financial flows to emerging markets. Their fully open capital accounts, along with rapid institutional reform and good growth prospects attracted capital in unprecedented magnitudes compared to the countries’ still comparatively low GDP. Against this, it would seem that even perfect policies might not have been able to prevent all of the rapid credit growth and build-up of imbalances.
- **The end of the credit cycle was brought about by a global crisis.** The end of the credit boom came abruptly, as foreign parent banks ran into funding problems. Arguably in a more benign global environment, the credit bubble could have been deflated more slowly, and in fact at least some of the parent banks had initiated efforts to this effect. In addition, in a more favorable external environment, there would also not have been an export shock of the magnitude we saw, and a soft landing might still have been possible.

Yet the differences in the magnitude of the boom-bust cycle imply that policies and policy failures also have played a critical role. In fact, some countries managed to avoid most of the excesses, including asset price bubbles and foreign exchange lending. With a view to preventing the reemergence of a similar crisis, a full recognition of the “policy challenges and failures” during this episode should help shape macroeconomic and prudential policies in emerging markets as global credit flows return to normal.

What, then, were these policy failures that exacerbated the boom in some countries, but were avoided in others? The boom years provided difficult policy choices and uncertain trade-offs. Many of the developments, including growth, rapid financial deepening and convergence of living standards were highly desirable. There was a debate as to whether or not growth had already become unsustainable, but even where economists cautioned, the necessary restrictive policies were politically unpopular. Many countries also faced a shortage of potentially effective policy tools. Yet, with the benefit of hindsight, a more active policy response during the boom phase would have helped.

The lack of sufficiently early and adequately strong policy action reflects a failure at different levels. Risks were underestimated: in the context of convergence and the expansion of western banks the boom in the EU-9 was thought to be different from earlier capital account crises (section A). Prudential/regulatory policies that were tried were unable to

address the systemic risks (section B), and macro policies did too little to reduce demand pressures. This was in part the result of the institutional setup—countries with fixed exchange rate regimes lacked effective monetary policy instruments (section C) and foreign exchange exposure, which had built up over time, limited policy space (section D). However, even instruments that were available—fiscal policy—were not used sufficiently (section E).

A. Risks Were Underestimated—“Europe is Different”

During the boom years, economists disagreed on the risks posed by the increasing imbalances:

- **Many argued for a benign interpretation of the imbalances, suggesting that they were in line with what economic theory would predict.** They noted that in Europe capital flowed from rich to poor countries—as economic theory suggested it should—and that the capital inflows had accelerated income convergence.¹⁷ They also argued that rapid credit growth reflected a catch-up of credit-to-GDP ratios to equilibrium levels.¹⁸ Consequently, they were less worried about the vulnerabilities that resulted from rapid credit growth and large current account deficits, and were convinced that the improvement in institutional and legal frameworks that resulted from the integration with Western Europe made the EU-9 very different from other emerging market countries.¹⁹
- **Others, however, took a more cautious view and warned that the increasing imbalances posed considerable vulnerabilities.** They noted that current account deficits had reached unprecedented heights, external debt had become very high, credit growth had been extremely rapid, and that vulnerability indicators looked not

¹⁷ Abiad, Leigh and Mody (2007) argued that “With increasing financial integration, capital in Europe has traveled “downhill” from rich to poor countries, and has done so with gathering strength. These inflows have been associated with significant acceleration of income convergence.”

¹⁸ Backé, Égert, and Walko (2007), in a study of credit growth in the nine countries discussed in this paper, Croatia and Slovenia argued that “private sector credit-to-GDP levels in 2006 were still below equilibrium in Poland and Romania, and marginally below equilibrium also in the Czech Republic. In the other countries under review, they were within the estimated equilibrium range, though with considerable differences across countries.”

¹⁹ By late 2007, the vulnerabilities were starting to be better recognized. The IMF’s April 2008 Regional Economic Outlook-Europe (page 15) warned that “...the heavy dependence on foreign capital leaves the region exposed to an abrupt retrenchment of capital inflows.” and “Economies with large current account deficits or high external debt ratios would be especially vulnerable if foreign financing dried up.”

only high from a historic perspective, but also compared to levels seen in other emerging market countries.²⁰

In the run-up to the crisis, experts’ opposing views left policy makers with unclear directions.²¹ As ECB Executive Board Member Lorenzo Bini Smaghi²² wondered in 2007: “Should policy makers get comfort from the fact that the imbalances in central, eastern and south-eastern Europe are in line with standard economic theory? Or should we be worried that these imbalances can be very disruptive for convergence if they prove to be unsustainable, as corrections can be painful and costly?”

Financial markets seemed to support the “benign” view of capital inflows—which for many policy makers made the more worried view less compelling. As public debt ratios in the region dropped (Table 4), the perceived riskiness of the region continued to decline, and CDS spreads dropped to very low levels (Figure 17).

Table 5. Public Debt, 2003-07
(Percent of GDP)

	2003	2007	Change
Estonia	5.6	3.4	-2.2
Latvia	13.2	7.8	-5.5
Lithuania	21.1	17.0	-4.1
Bulgaria	48.1	19.8	-28.3
Romania	21.5	19.8	-1.7
Czech Republic	30.1	28.9	-1.2
Slovak Republic	42.4	29.4	-13.0
Poland	48.4	44.8	-3.6
Hungary	58.0	65.8	7.7

Source: IMF, WEO Database April 2010.

Even when vulnerabilities were recognized, a crisis was seen as a tail risk. It was difficult to envisage a shock severe enough to trigger an actual *crisis*, and few recognized the risks that a shock to the region could originate from the financial system in Western Europe. While the build-up of exposure of Western banks to the region was similar to that to Latin America in the late 1970s and early 1980s, and to Asia in the mid 1990s (Figure 18), it was thought that the increase in exposure to the EU-9 was less risky, as the exposure was largely to local subsidiaries, which foreign parent banks would not

²⁰ For example, Bakker and Vladkova-Hollar (2006) argued that vulnerabilities in Eastern Europe looked worse than in pre-crisis Asia. A similar view could be found in Roubini and Menegatti (2006), and Sorsa *et. al* (2007). Duenwald, Gueorguiev and Schaechter (2005) examined three cases (Bulgaria, Romania and Ukraine) and argued that credit growth was excessive and caused macroeconomic instability. Sirtaine and Skamnelos (2007) worried that “the Emerging European Countries have experienced very rapid credit expansion over several years and are subject to significant macroeconomic imbalances, largely fueled by this rapid credit growth.”

²¹ In practice, economists’ views often incorporated elements of both views—they recognized that the developments were driven by convergence, yet worried that they came with vulnerabilities. A good example is Enoch and Ötker-Robe (2007, page 365): “The rapid credit growth of recent years has been pervasive and in many ways welcome. To some extent, this trend reflects a catch-up of the region, assisted by a favorable conjuncture, including rapid economic growth and low interest rates in the region. Nevertheless, studies of past crises show that these have nearly all been preceded by rapid credit growth, so at a minimum one needs to monitor the situation carefully to ensure that such a situation does not recur.”

²² Real convergence in Central, Eastern and South-Eastern Europe, Speech by Lorenzo Bini Smaghi, Member of the Executive Board of the ECB at the ECB Conference on central, eastern and south-eastern Europe, Frankfurt, October 1, 2007, available at http://www.ecb.int/press/key/date/2007/html/sp071001_2.en.html.

willingly abandon.²³ This view of course did not take account of the fact that some parent banks themselves were small in international comparison, with limited liquidity and dependent on global interbank markets, and that therefore disruptions from outside of the home country (“third country shocks”) could have severe contagion effects.

Thus, the predominant view during the boom years was that rapid GDP growth would continue. In the IMF’s October 2007 WEO, it was projected that most countries’ average GDP growth during 2008-12 would not be much below GDP growth during 2002-07. In the Baltics, growth would slow more, but even there it would remain strong.

Had risks been better recognized, and priced more adequately, it is likely that the boom-bust cycle would have been less pronounced.²⁴ If risk premia had

increased in line with increasing imbalances, capital flows would have slowed, credit growth would have been slower, and private sector demand would not have grown as rapidly. For the public sector, an earlier recognition that the boom was unsustainable would likely have led to a more cautious path of public expenditure during the boom years (see section D).

Table 6. Projections of Average Annual Real GDP growth, October 2007 (Percent)

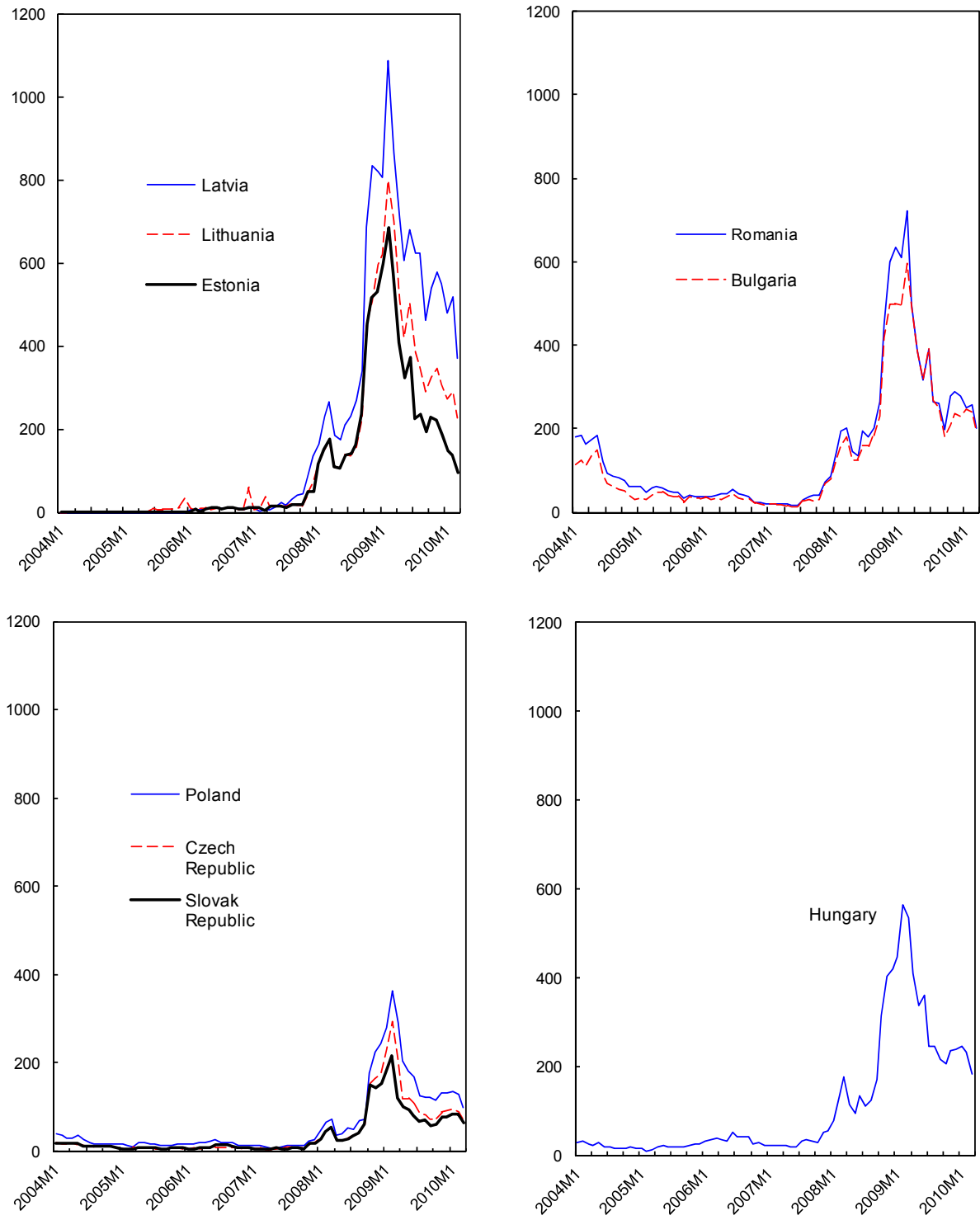
	2002-07	2008-12	Change
Latvia	9.7	3.0	-6.7
Lithuania	8.4	6.0	-2.5
Estonia	8.3	6.0	-2.3
Czech Republic	5.5	4.4	-1.1
Slovak Republic	7.1	6.3	-0.8
Romania	6.4	5.6	-0.8
Poland	5.2	4.6	-0.5
Bulgaria	6.1	5.8	-0.3
Hungary	3.6	3.4	-0.2
Average	6.7	5.0	-1.7

Source: October 2007 World Economic Outlook.

²³ The view that Western banks would not abandon the region turned out to be correct. However, the sudden stop in capital flows from Western banks still had a very large impact on domestic demand booms.

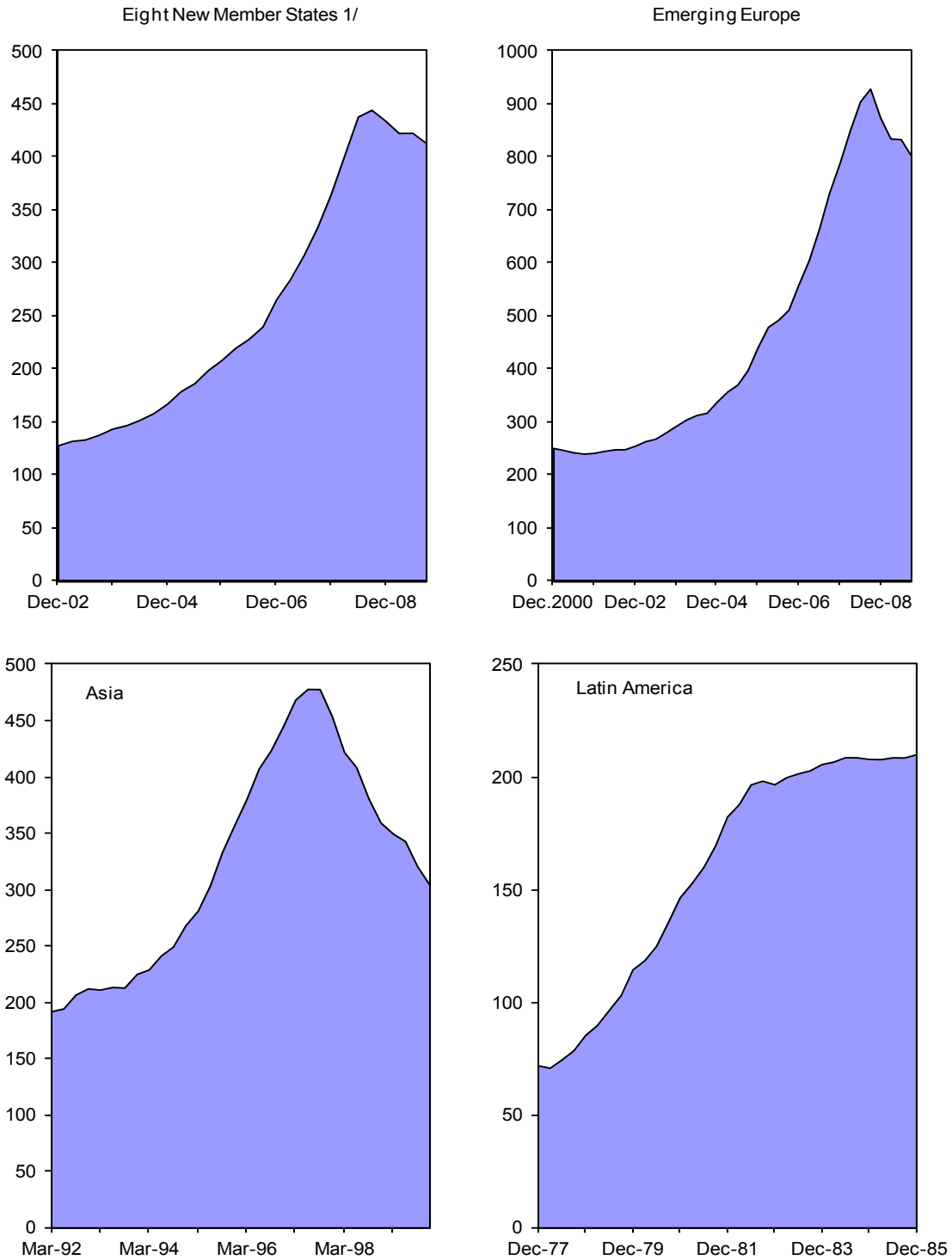
²⁴ The underestimation of risks was of course not confined to the EU New Member States—to a considerable extent, this was a *global* problem.

Figure 17. 5-year CDS spreads, 2004–10



Source: Datastream.

Figure 18. External Position of Western Banks vis-a-vis Selected Regions
(Billions of US dollars, adjusted for exchange rate changes)



Source: BIS, locational statistics (<http://www.bis.org/statistics/bankstats.htm>).
1/ Slovakia has been excluded., as its EMU-entry in 2009 distorted the statistics.

B. Prudential/Regulatory Policies Had Only Limited Effect

The prudential framework and regulatory oversight in most EU-9 countries had been modernized in the aftermath of the transition. Following the shift to market based economies in the early 1990s, significant efforts were made to establish modern regulatory frameworks. FSAPs for the region and other types of assessment found that that the regulatory environment was generally in line with international best practices.²⁵

However, supervisors in most EU-9 countries that had a credit boom were not sufficiently attuned to the risks associated with rapid credit growth. While studies of past banking crises show that these have nearly all been preceded by rapid credit growth, there was generally little concern that a similar crisis could occur in the region. Also, with opportunities in the rapidly growing financial sector, staff turnover in regulatory agencies was high. As a result, few supervisors in the area had lived through a full credit cycle.

Some regulators in the EU-9 did fear that credit growth might become excessive. When credit growth surged to levels that were widely seen as challenging to internal risk management systems, the need for regulatory action started to become a topic of discussion in the region. Interestingly, these discussions were most intense in fixed exchange rate countries, where monetary policy responses are not available, and where prudential tools were seen as a possible response to excessive growth of macroeconomic credit aggregates.

Some countries took prudential actions, but with mixed success. Among the measures tried to limit overall credit growth are increases in required reserves (Bulgaria, Latvia, and Romania) and increases in capital requirements (Bulgaria, Romania).²⁶ Most controversial were prudential credit ceilings applied in Bulgaria, with also explicit macroeconomic aims, slowing down aggregate domestic credit growth. While the measures were indeed successful to restrict domestic banks' (including foreign owned subsidiaries') ability to provide credit beyond the set limit, the macroeconomic effect was evasive. Foreign parent banks started routing credit to prime customers directly through the parent bank, leaving subsidiaries with a "worse" set of clients, while overall credit growth continued.

The activities of foreign banks in the region did not get enough scrutiny from supervisors in Western European home countries. As a result of bank privatizations and the resolution of banking crises in the early 1990s, foreign banks became significant or even dominant players in the banking systems in many CEE countries. In the context of consolidated supervision, those banks were subject to home country oversight, leaving local

²⁵ For example, the Hungary FSAP (2005) concluded that "Overall, the regulatory and supervisory framework compares well with the relevant international standards". Similarly, the Lithuania FSAP (2008) noted that "the regulatory and supervisory frameworks for banks are in line with international standards."

²⁶ For a discussion of the various measures tried, see Hilbers, Ötöker-Robe and Pazarbasioğlu (2007).

supervisory agencies under the impression that the institutions were monitored also at the home country level. However, individual CEE subsidiaries were mostly small compared to the overall size of the home country institutions, which limited the extent and intensity of supervision of individual subsidiaries. In addition, home country supervisors had little knowledge of local market conditions in host countries.

In some countries, weak domestic banks persisted. Notwithstanding the large presence of foreign owned subsidiaries, some countries had also large systemically important domestic banks. In order to compete with new foreign entrants, some of these banks took on significant levels of risk and, in some cases, developed intransparent market niches. In the event of the crisis, at least two countries that needed to turn to IMF and EU support, suffered from significant domestic financial sector pressures and looming banking crises.²⁷

C. Countries with Fixed Exchange Rates had Few Effective Policy Tools

In the context of very large capital inflows, the countries with currency boards faced particular challenges. Countries with fixed exchange rates cannot let the nominal exchange rate appreciate when faced with capital inflows, and are therefore less able to “insulate” domestic liquidity from capital inflows. In the EU-9 the problem was aggravated by the fact that the fixed rate regimes all operated as currency boards – which by design shun all forms of intervention, even temporary actions sometimes possible under less strict fixed regimes.²⁸ These regimes had been chosen to facilitate acceptance of a new currency by the population (Baltics) and to regain credibility after a hyperinflation (Bulgaria). As a consequence of these exchange rate regimes, capital inflows in all fixed exchange rate countries in were accompanied by rapid increases in money supply and inflation, which in turn led to downward pressure on real interest rates and a further boost for credit growth.

A comparison with developments in the countries with floating exchange rates suggests that the exchange rate regime indeed mattered. Most of the countries with floating exchange rates (Czech Republic, Poland, Romania and Slovak Republic) tightened monetary

²⁷ Latvia’s Parex bank was restructured as part of the IMF program. Hungary’s largest bank – OTP—has subsidiaries in a number of CEE countries. While being sound, in the context of the global liquidity crisis, OTP temporarily lost access market access, and creation of a government support scheme, as part of the IMF program, was necessary.

²⁸ Bulgaria, Estonia and Lithuania operate formal currency boards; Latvia operates a “quasi currency board”. In the case of formal currency board, the exchange rate regime and the applicable exchange rate is generally set out in a law. In a “quasi currency board” a long practice and public visibility of the regime makes it similarly inflexible. With a currency board changes in the exchange rate level or regime will require legal steps, and—given the time and public debate needed to achieve such a step—any public discussion of a change risks spurring a currency crisis. See Wolf, Gulde and Ghosh (2008) for details.

conditions by letting the nominal exchange rate appreciate (Figure 19).²⁹ The appreciation of the exchange rate helped keep inflation low (not only by preventing an overheating of the economy, but also by reducing import prices) which kept real interest rates high. By 2008, there was a quite dramatic difference in terms of macroeconomic vulnerabilities between fixed and floating exchange rate countries. Floating exchange rate countries had a much less pronounced credit boom, lower inflation, and smaller current account deficits (Figure 20). They also had less deterioration of competitiveness, as they managed to prevent the acceleration of wages and prices that occurred in fixed exchange rate countries. By contrast, in Latvia and Bulgaria—two countries with fixed exchange rates—wage growth accelerated sharply, which led to a rapid appreciation of their real exchange rate.³⁰

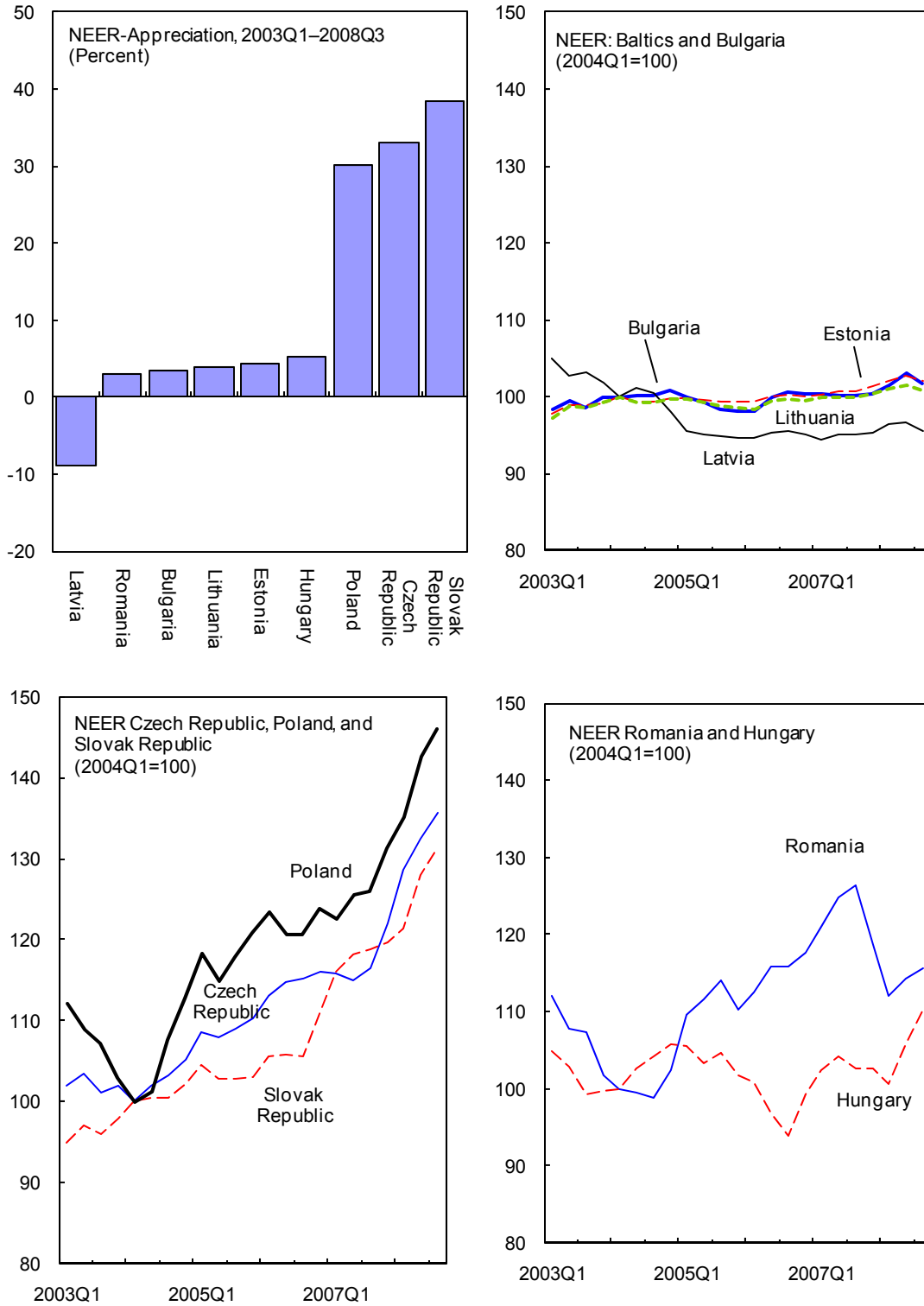
The long-term assessment of the contribution of the exchange rate regime to the development of the crisis needs to remain open at this stage. Chosen initially for specific purposes and contributing in the early stages to lower inflation and a predictable policy environment, the exchange rate regimes initially were successful and continue to benefit from broad domestic political support. The capital inflows period posed hitherto unseen challenges, but it remains unclear to what extent other policies—in particular fiscal and prudential—could not have more effectively compensated for the absence monetary/exchange rate policy responses. Arguably, in the context of the crisis, a change in the exchange rate regime would have been too late to avoid the excesses, and possibly also associated with significant costs.³¹

²⁹ Of the countries with floating exchange rates, Hungary (which did not have a domestic demand boom), saw the smallest appreciation.

³⁰ In Bulgaria, wage growth accelerated to 25 percent in mid 2008; in Latvia to over 30 percent in 2007. Wage growth was further boosted by emigration to Western Europe.

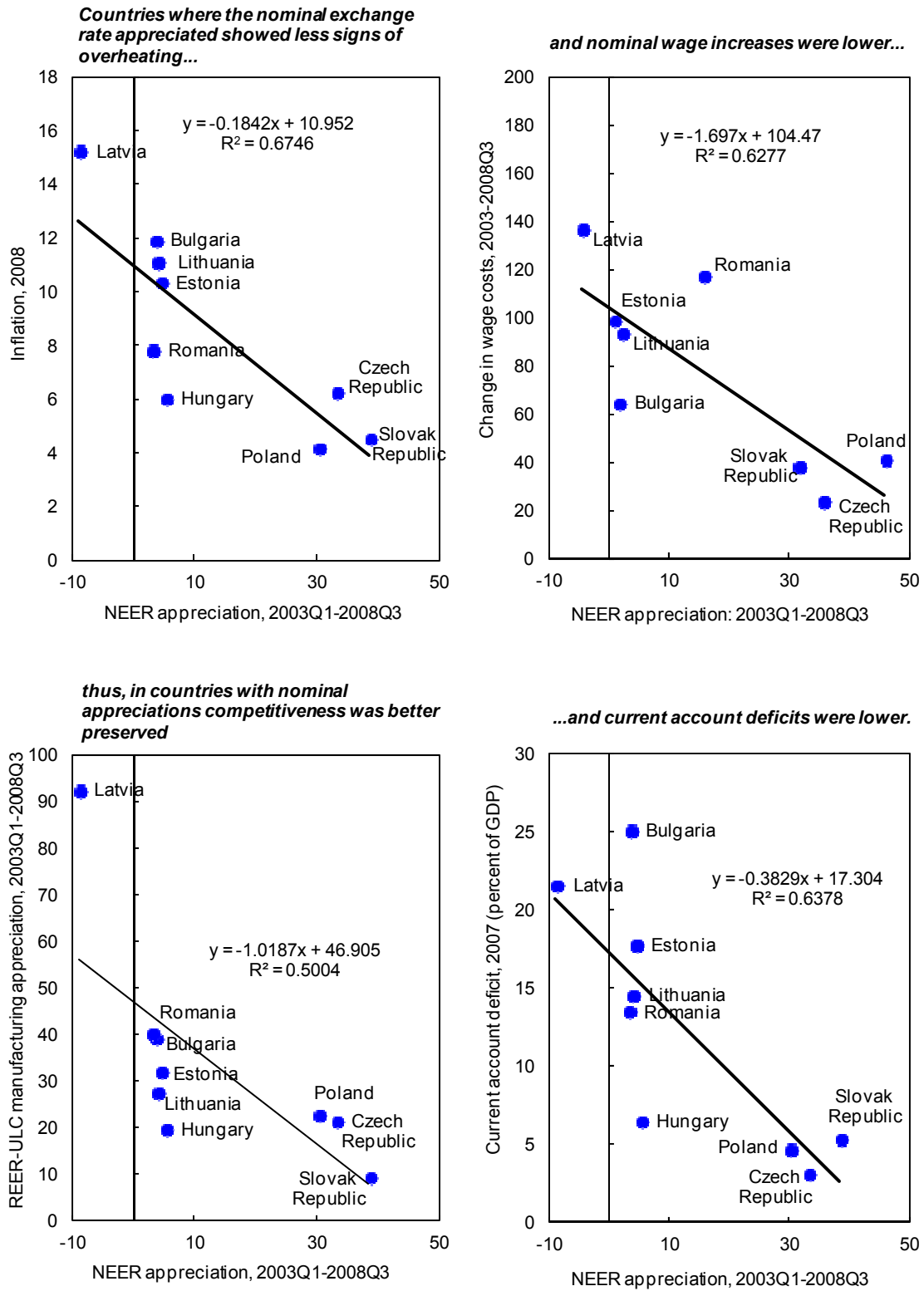
³¹ See Ghosh, Ostry, and Tsangarides for a general discussion of macroeconomic effects of exchange rate regimes (2009).

Figure 19. Exchange Rate Policy



Source: Haver.
 Note : Until 2004, Latvia pegged its currency o the SDR; thereafter to the euro.

Figure 20. Exchange Rate Policy and Competitiveness



Source: Eurostat; and Haver.

D. Excessive Foreign Exchange Risks Affected Policy Responses

The risks of lending in foreign currency were among the most serious unappreciated risks. The credit boom was, in most countries, associated with a surge in foreign currency loans (the Czech and Slovak Republics were notable exceptions). The surge reflected both demand and supply factors:³²

- **On the demand side, foreign currency borrowing was boosted by interest rate differentials.** Foreign currency loans were cheaper—particularly when the exchange rate risk was ignored.³³ Foreign currency loans were not confined to euro-loans; in some countries, loans were also denominated in currencies with even lower interest rates, such as the yen and the Swiss franc.
- **On the supply side, the increase was in large part a result of the funding structure:** as local subsidiaries obtained funding from their parent bank in euro, they on-lent in euro rather than in local currency (Figures 21 and 22). While this notionally left local subsidiaries with no open positions, it increased credit risks, given that many final borrowers did not have a “natural hedge” in place.

Prudential responses could only affect the demand side but were not applied consistently. Given (perceived) cost advantages and limited exchange rate flexibility in most countries, there was limited pressure for prudential action and therefore foreign and domestic currency loans were subject to the same risk treatment. However where risk awareness was higher, in particular in Poland, appropriately formulated prudential regulations helped limit the system’s exposure to foreign exchange risk and thus later the impact of the crisis on the Polish household sector.³⁴

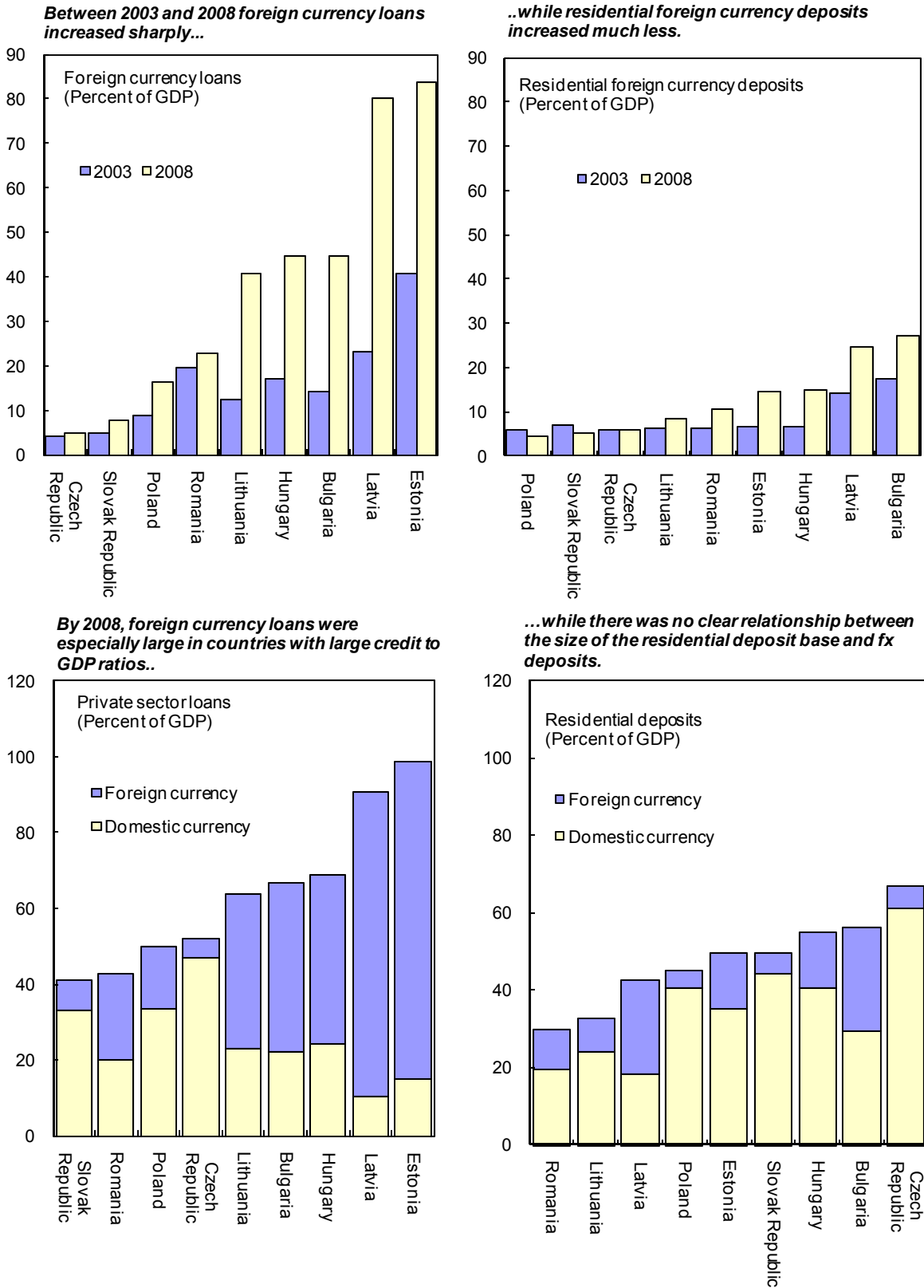
At the macroeconomic level, foreign exchange lending limited the macroeconomic policy space. With a large part of lending denominated in foreign currency, many borrowers were exposed to “balance sheet risk” in case of a deep exchange rate change. Hence even countries with flexible exchange rate regimes needed to take note of the potential financial sector consequences of exchange rate changes, when presumably many of the loans would have become nonperforming. As a result, foreign currency exposures severely limited the extent to which the exchange rate could be used to respond to the crisis.

³² Rosenberg and Tirpák (2008) also concluded that the “growing dollarization of liabilities in the NMS can be primarily explained by the interest rate differential and the extent to which credit is funded from abroad.

³³ A notable exception was the Czech Republic, where foreign currency loans remained very limited.

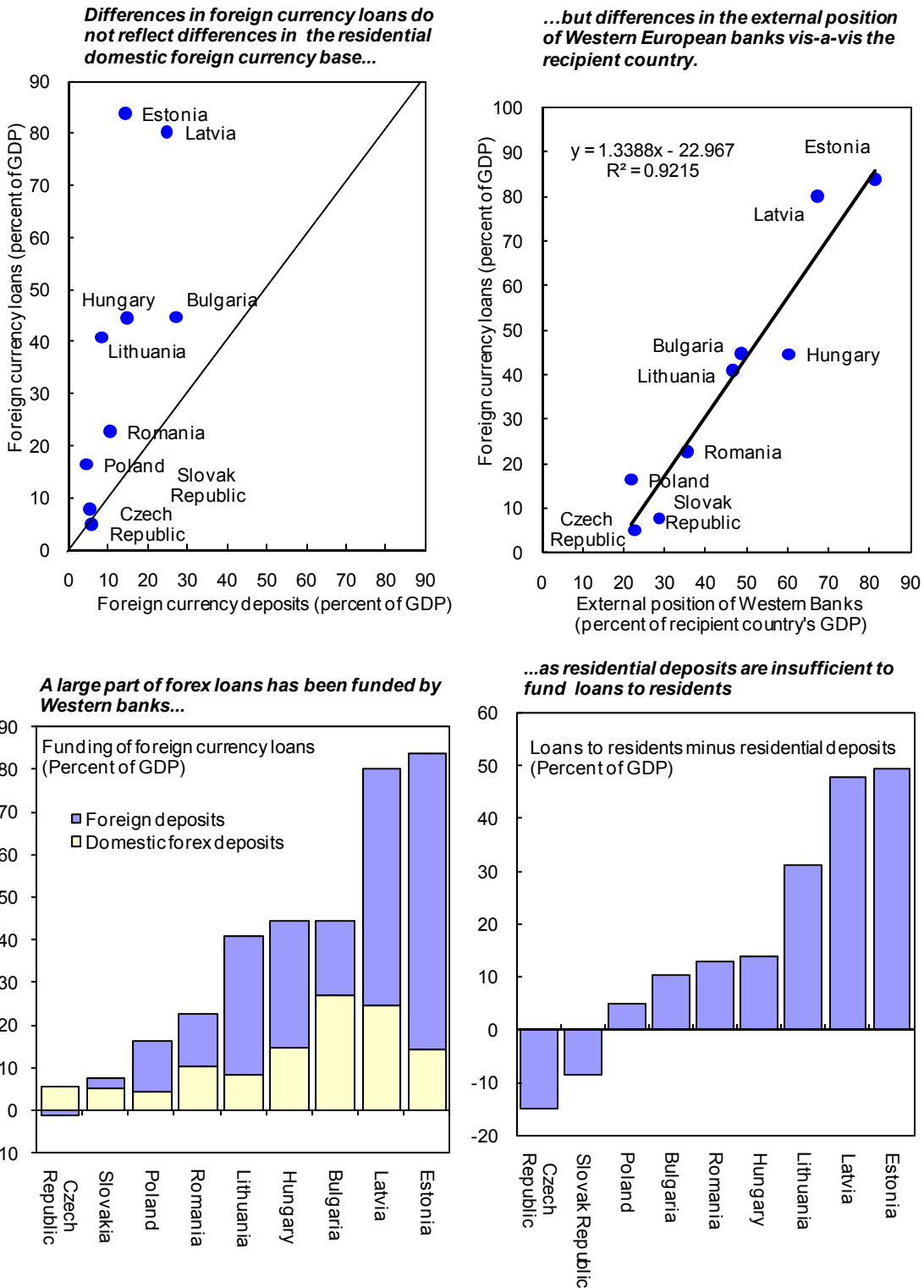
³⁴ In Poland “Recommendation S” was introduced in 2006 to address the rising foreign currency mortgages in the banking sector.

Figure 21. The Boom in Foreign Currency Loans



Source: Haver.

Figure 22. The Role of Western Banks in Funding Foreign Currency Loans



Sources: BIS, Locational Banking Statistics; and Haver.

E. Rapid Public Expenditure Growth Exacerbated Demand Pressures

Fiscal headline balances improved in all countries except Romania during the boom years. The improvement of the fiscal balance was particularly strong in the Czech Republic, Poland, and Bulgaria.

By 2007, only Hungary and Romania had a deficit that exceeded 3 percent of GDP, and Bulgaria and Estonia were running surpluses.

Yet, from a demand management point, in many countries fiscal policy was not sufficiently tight.

Expenditure was

growing rapidly in nominal terms. In many countries revenues were growing very strongly—the result of the domestic demand boom—and this was used to finance rapid expenditure growth (Figure 23). By 2008, countries with the most rapid public expenditure growth were showing the most pronounced signs of overheating. Thus, fiscal policy further exacerbated private sector demand pressures.³⁵

Rapid expenditure growth was also problematic as large part of the revenue booms turned out to be cyclical. When the domestic demand boom ended, revenue declined sharply. As a result, the fiscal balances in most countries deteriorated, most particularly so in countries that had the most pronounced credit boom.

With the benefit of hindsight, public expenditure growth should have been more restrained during the boom years. If the surge in revenues had been used to build up increasing fiscal surpluses, rather than a sharp increase in expenditure, fiscal policy would not have further fueled overheating. It would also have created more fiscal buffers that could have been used during the current downturn. It should be acknowledged that from a political economy perspective, running large surpluses in catching-up economy—with large demands for improvements in infrastructure—would have been difficult.

Table 7. General Government Balance on Accrual Basis 1/
(percent of GDP)

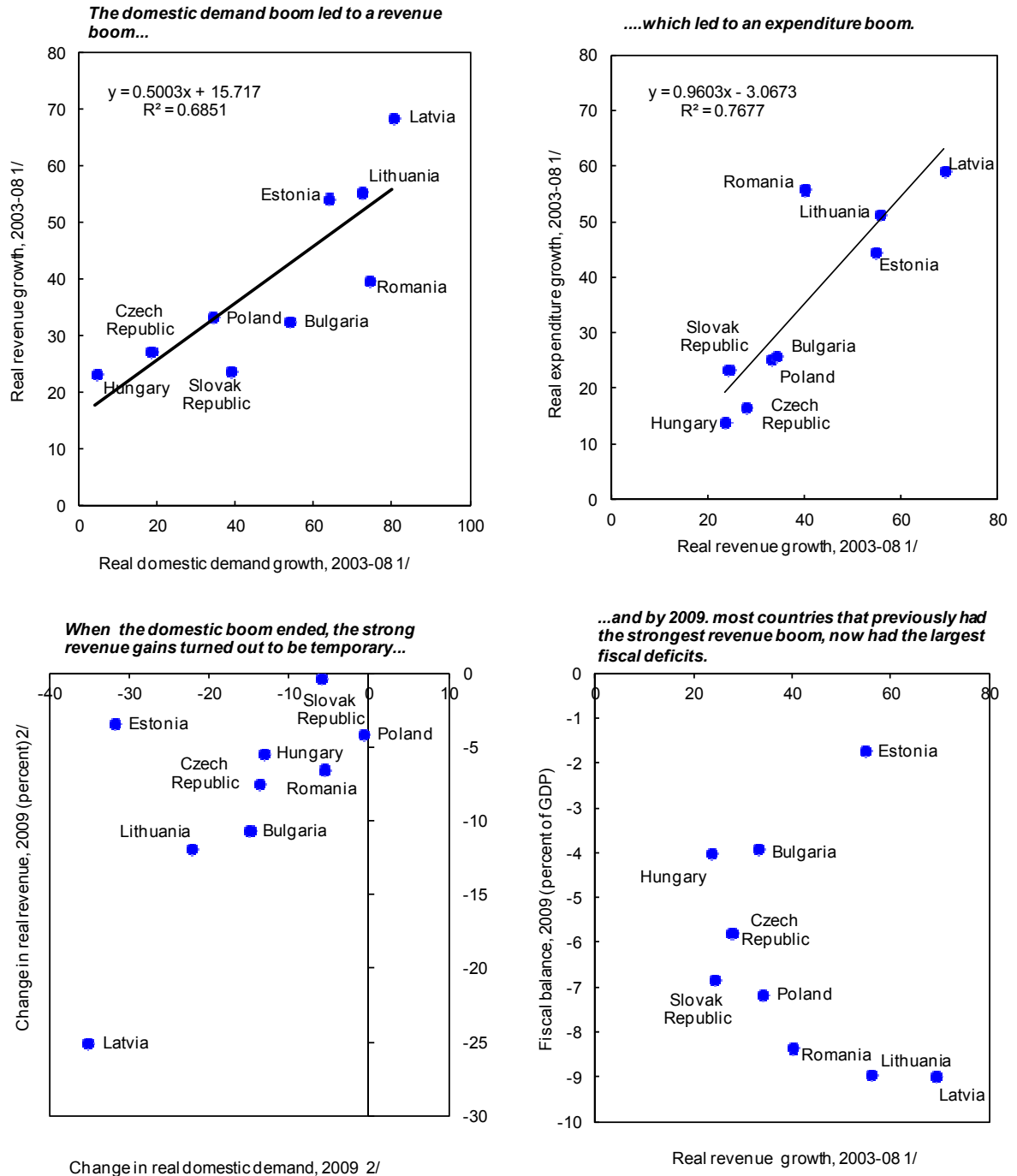
	Level				Change		
	2003	2007	2008	2009	2003-07	2007-09	2003-09
Bulgaria	-0.3	0.1	1.8	-3.9	0.4	-4.0	-3.6
Czech Republic	-6.6	-0.7	-2.7	-5.9	5.9	-5.2	0.7
Estonia	1.7	2.6	-2.7	-1.7	0.9	-4.3	-3.4
Hungary	-7.2	-5.0	-3.8	-4.0	2.2	1.0	3.2
Latvia	-1.6	-0.3	-4.1	-9.0	1.3	-8.7	-7.4
Lithuania	-1.3	-1.0	-3.3	-8.9	0.3	-7.9	-7.6
Poland	-6.3	-1.9	-3.7	-7.1	4.4	-5.2	-0.8
Romania	-1.5	-2.5	-5.4	-8.3	-1.0	-5.8	-6.8
Slovak Republic	-2.8	-1.9	-2.3	-6.8	0.9	-4.9	-4.0

Source: Eurostat.

1/ Note that since deficit figures are on accrual basis, they may differ from data in other IMF publications, which are often on a cash basis.

³⁵ The rapid absorption of EU funds further contributed to domestic demand pressures. Rosenberg and Sierhej (2007) estimated that these foreign transfers contributed 1 percent of GDP in additional stimulus each year.

Figure 23. Fiscal Policy
(On accrual basis, in percent)



Source: Eurostat. Note that revenue, expenditure and balance are on accrual rather than cash basis. Thus, they may differ from data in other IMF publications, which is often on a cash basis.
 1/ For Baltics, 2002–07.
 2/ For Baltics 2007–09.

V. POLICY LESSONS: COULD THE CREDIT BOOM HAVE BEEN PREVENTED?

The credit boom-bust cycle in the EU-9 was to a large extent the result of factors external to the region. Rapid credit growth in New Member States followed from high liquidity in global markets and the particular attractiveness of “new Europe” for capital flows, while the end of the credit cycle was brought about by a global crisis.

Yet the fact that some countries (in particular the Czech and Slovak Republics) managed to avoid most of the excesses, including asset price bubbles and foreign exchange lending, suggests that policies and policy failures also have played a critical role. In fact, with a view to preventing the reemergence of a similar crisis, a full recognition of the “policy challenges and failures” during this episode should help shape macroeconomic and prudential policies in emerging markets as global credit flows return to normal.

Credit growth is in the first place a financial sector challenge, and both prudential policies and adequate supervision need to play an important role. Prudential rules need to be designed to adequately cover risks, which in the context of emerging markets may require higher capital buffers than in more mature markets. In addition, foreign exchange risk should be adequately priced and, at a minimum, incentives toward lending in foreign exchange should be avoided. Rules applicable to foreign exchange lending to unhedged consumers, and carry trades may need to be revised both to better protect individual consumers, but also avoid macroeconomic consequences of such lending practices. Finally, improved home-host cooperation among supervisors will be needed for a consistent implementation of an improved prudential framework.

Yet where credit growth accelerates, the limits of prudential policies underscore the need for a decisive macroeconomic response. With increasing credit volumes the quality of lending is likely to deteriorate. A number of regulators in the region therefore did attempt to use prudential tools to lower credit growth. The experience with using credit ceilings and related instruments that were tried to slow lending growth in individual institutions has, however, been disappointing. Rather than discouraging lending, given that home countries were not applying the same rule, it spurred circumvention in the form of direct borrowing by enterprises from foreign banks and the shift of lending to less regulated institutions, while not addressing the macroeconomic problem. This experience may also be relevant in assessing the tools currently discussed in the context of the debate on capital controls.³⁶

When designing macroeconomic policies in a boom phase, policy makers must remain skeptical about the sustainability of very rapid GDP growth. Narratives that “this time is

³⁶ Within the EU outright capital controls would not be possible in normal circumstance. Prudential measures could to some extent be designed to achieve similar effects, but significant differences between home and host countries would most likely lead to circumvention.

different” often have some plausibility and attractiveness during booms, but a careful analysis of the drivers of growth, including asset price developments and competitiveness should always be used as a “reality check”. With the benefit of the experience from a range of capital account crises in the 20th and now the 21st century, the costs of a possible bust should not be underestimated. Against this risk, policy makers should choose macroeconomic and structural policies with a view to avoiding excessive and unsustainable credit growth.

The exchange rate regime plays a critical role in the determining a country’s ability to adapt to credit flows. The choice of the exchange rate regime needs to be seen against a broad range of factors, and “no single regime is right for all countries at all times”. The experience of the central and eastern European countries, however, confirms that fixed exchange rate countries face greater challenges when confronted with capital inflows than floaters. Under fixed exchange rate regimes, the inability to raise interest rates or appreciate the domestic currency can lead to inflationary pressures, rising wages and loss of competitiveness. For countries with floating exchange rates, nominal exchange rate appreciation may help in moderating credit booms. Exchange rate appreciation tempers overheating, reduces inflationary pressures, and keeps real interest rates positive. The nominal appreciation also keeps pressures on nominal wage growth in check.

Fiscal policy may need to play a much stronger countercyclical role, and be the key policy tool in countries with fixed exchange rates. When revenue booms are used to finance a surge in expenditure, the fiscal balance may look healthy, but as the revenue boom may be temporary, the expenditure boom may lay the ground for large fiscal deficits when the boom ends. A more sustainable approach to fiscal policy may need to focus less on targeting a fiscal balance and more on containing expenditure growth. Limiting expenditure would also imply that fiscal balances will need to improve rapidly during booms—even in surplus countries. While the above argument holds for all countries facing capital inflows, the role of fiscal policy in fixed exchange rate countries will need to be even more pronounced to reduce demand pressures in the economy. Needless to say, that the political economy difficulties of running such surpluses in a catching up economy can be daunting.

Finally, policies to mitigate credit booms have long-term benefits in promoting more balanced and sustainable growth. Countries’ experience after the credit boom shows that those with the most severe boom saw the largest output volatility and the most pronounced reversals. It now appears that *average* growth over the cycle in this group is no higher and in some cases lower than in countries with more restrained credit increases. In addition, growth among the countries with the highest credit growth has often been highly imbalanced, without sufficient expansion of the economies’ supply potential, hence leaving little long-term growth enhancing potential. Finally, countries with the most rapid credit growth have also ended up with the highest external debt and the largest fiscal deficits.

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